Invited Presentation

A PARADIGM FOR GYNECOLOGIC ONCOLOGY TRAINING IN THE DEVELOPING WORLD

P. Heintz

The Dutch School of Gynecologic Oncology and Pelvic Surgery, Utrecht, The Netherlands

Introduction: Gynecologic cancer is a big problem in the developing world. Patients often present in advanced stage which results in poor treatment outcome. Better results in the treatment of cancer patients can be obtained by starting to teach how to use existing knowledge. Important existing knowledge is surgery and nursing. Teaching surgery and oncology nursing on the spot is a relatively cheap way to improve the cure and care for the cancer patients in the developing world. Objective: to establish and support teaching centers for gynecologic oncology (go) oncology nursing (on) and pelvic surgery (ps) in Indonesia and India.

Method: In 2007 the Dutch School of Gynecologic Oncology and Pelvic Surgery (DS) was founded to teach go and ps in Indonesia and India. We focussed on Indonesia and , on a smaller scale India because of existing fellowship programmes. We developed the following format: DS sends 2-3 times per year subspecialized gynecologists to State teaching hospitals during 2 weeks to give theoretical and practical surgical training to fellows and oncology staff. Those who have successfully completed the fellowship program in their home country get the possibility to study go/ps for 6 months in one of the University Medical Centers (8) or community teaching hospitals (8) in the Netherlands (“fine tuning”). After that they become teachers in their home country. Most important criteria for acceptance are: sufficient knowledge of the English language and a guaranteed position in a teaching hospital. Recently we have started a similar program for nurses. In 2012 we started a 4 month course “introduction to ps” to improve the basic surgical skills (bss) for those who are starting the fellowship program. Funding is by charity money from private organizations. In 2012 we founded an Indonesian sister foundation: Indonesian Dutch School Foundation, to facilitate the organization and fund raising in Indonesia.

Results: DS cooperates now with 10 Indonesian and 4 Indian medical schools and 2 Indonesian cancer institutes. In 2012 we organized 50 weeks of teaching. 14 Indonesian fellows and 1 Indian fellow have followed the fellowship in the Netherlands and are now teachers at home. 10 young Indonesian gynecologists followed the bss fellowship. Important areas of teaching are: multidisciplinary cooperation, surgical skills and perioperative management. For the oncology nurses program we started with 10 weeks of teaching to gain insight in the needs. this year we will start with intensive teaching on the spot in one cancer hospital. Because of language problems it is not effective to invite nurses for study to the Netherlands.

Conclusion: the first experiences with the combination “training on the spot in the home country and fine tuning in a first world hospital” are promising and satisfying. It is promising that nearly all fellows are working now in public teaching hospitals (train the trainer effect). End point of evaluation will be the number of gynecologic oncology/pelvic surgery teachers and teaching centers for doctors and nurses in 2017.
Free Paper: Cervical Cancer
CERVICAL CANCER PREVENTION EFFORTS IN JAKARTA

L. Nuranna1,2, M.F. Aziz1,2, G. Purwoto1,2, S. Cornain1,3, S. Budiningsih5, D. Emmawati5, I.B.N.
Banjar7, P.L. Handayan6, I. Setiawan6, T.F. Bowo6, U.S. Umar6, S. Nurhayatie6, P.S. Sidi6, C.
Rachmawati6, R.I.R. Ningrum1, R.L. Avriyani7, A.A.W. Peters6

1Faculty of Medicine, University of Indonesia, 2Obstetrics and Gynecology, 3Pathology Anatomy, Dr
Cipto Mangunkusumo Hospital, 4Community Medicine, University of Indonesia, 5Provincial Health
Office of DKI Jakarta, 6Indonesian Cancer Foundation, 7Female Cancer Program (FCP) FKUI-RSCM,
Jakarta, Indonesia, 8Obstetrics and Gynecology, Leiden University, Leiden, The Netherlands

Background: Cervical cancer is the third most common cancer in women worldwide. In Indonesia,
more than 70% this preventable disease presented in advance stage when patients come to the
hospital. Therefore cervical cancer prevention efforts were conducted in Jakarta by Female Cancer
Program (FCP) collaborate with Indonesian Cancer Foundation (YKI) and Provincial Health Office
(PHO) of DKI Jakarta.

Aim: To describe the cervical cancer prevention efforts in Jakarta, Indonesia.

Method: From 2007 until 2012, cervical cancer efforts conducted were training for health providers,
cadres, and community; awareness of cervical cancer to community, screening by Visual Inspection
of Acetic Acid (VIA) test and Pap smear test, treatment for the positive lesions by cryotherapy; referral
system; cryogun to public health center (PHC); governor policy about the cost of VIA test in PHC;
cancer registration system; and cooperation with other stakeholders and private sectors.

Result: There were 236 PHC trained from 339 PHC in Jakarta and 4,138 people trained consist of
1,295 general practitioners and gynecologists, 1,180 midwives, 1,035 cadres, and 628 society leader.
Awareness was carried on 122,655 people. In total, 53,815 women had been screened by VIA test
and 68,791 by Pap smear test. The VIA test-positive was 1,443 (2.62%) to which immediate
cryotherapy was performed in 833 women (59.45%). On the other hand, the dysplasia results from
Pap smear test were 186 (0.27%). Cervical cancers were found in 245 cases (0.19%).

Conclusion: Cervical cancer prevention efforts in Jakarta were successfully implemented and
needed to be sustained.
POPLATION BASED SCREENING FOR CERVICAL CANCER USING VIA, COLPOSCOPY AND HPV DNA TEST IN RURAL WOMEN IN BANGLADESH

S. Razia Begum 1, S. Nasima 1, G. Annekathryn 2, B. Adeline 2, C. Rachel 2, R.A. Anisur 3, A. Muzahed Uddin 3

1Square Hospital, Dhaka, Bangladesh, 2Gynecologic Oncology, Massachusetts General Hospital, Boston, MA, USA, 3Department of Medicine, Bangladesh Agricultural University, Mymensingh, Bangladesh

Background and aims: A cross-sectional survey was undertaken to estimate prevalence of precancerous cervix (PCC) using VIA, colposcopy and HPV DNA test in rural women in Bangladesh.

Methods: Four hundred and twenty three (423) women were screened using VIA, 29 VIA positive were subjected to colposcopy and 141 women were tested for HPV DNA by Hybrid Capture 2 (HCII) assay. Data were entered in Microsoft excel 2003 and transferred to R version 2.14.2. Descriptive statistics were obtained using data mining package of the R. A woman was considered PCC positive if she is positive in at least one of three tests.

Results: The prevalence of PCC was 12.3% (95% Confidence Interval (CI): 9.3-15.8), 12.7% (95% Confidence Interval (CI): 7.7-19.4) based on VIA and HPV DNA test respectively. Out of 29 highly VIA positive women 15 (48.3%) were colposcopy positive. Highest prevalence of PCC (20.8%) was observed in age group of 36-45 years. Smokers seems to be more (20%) affected by PCC than non smokers (14.8%). A decreasing trend of PCC (17.5-9.1%) was noted with the increasing level of education. The lowest (9.1%) prevalence of PCC was seen in women having highest level of education.

Conclusions: VIA is inexpensive and can be carried out using modest equipment and widely available consumables without the need for a laboratory infrastructure. Regular VIA and HPV DNA test would be the strategic approach in reducing vulnerability of women population toward susceptibility and severity of cervical cancer-a disease preventable using cost effective methods in Bangladesh.
Free Paper: Cervical Cancer
RADICAL SURGERY VERSUS RADIOTHERAPY FOR LOCALLY ADVANCED MUCINOUS ADENOCARCINOMA OF THE UTERINE CERVIX

Shikoku Cancer Center, Matsuyama, Japan

Introduction: Impact of radiation therapy on outcome of patients with locally advanced mucinous adenocarcinoma of the uterine cervix (MAC) remains controversial.

Patients and methods: Between 2001 and 2010, 666 patients received initial treatment for invasive cervical carcinoma at Shikoku Cancer Center. Among these patients, a total of 41 MAC patients were designated as FIGO stage IB2-IVA. In this group 22 patients received radiation therapy (RT group; FIGO stage IB2 2 cases, stage IIA 5 cases, stage IIB 7 cases, stage IIIB 8 cases) and 19 patients underwent radical hysterectomy (RH group; FIGO stage IB2 9 cases, stage IIA 3 cases, stage IIB 7 cases) for initial local control.

Result: 2-year Locoregional control (LRC) rate in stage IB2-IIA RT and RH groups were 42.9% and 90.9% (P<0.05), and among stage IIB cases the rates were 62.5% and 88.9% (P=0.11), respectively. 3-year over-all survival (OS) in stage IB2-IIA RT and RH groups were 57.1% and 83.3% (P<0.001), and among stage IIB cases the rates were 40.0% and 74.1% (P=0.15), respectively. All 8 IIIB patients were treated with RT as initial local control. In this group, all patients had recurrent disease, of which 75.0% had distant metastases.

Conclusion: For stage IB2-IIB patients with MAC, radical hysterectomy may significantly improve LCR and OS compared with radiation therapy. A randomized controlled trial and/or a well-designed case-control study is awaited to confirm the result. For stage IIIB disease, distant metastasis affects patient outcome, and thus adjuvant systemic chemotherapy should be considered.
Free Paper: Cervical Cancer
UROLOGICAL COMPLICATIONS OF RADICAL HYSTERECTOMY

J. Parija
Gyn-Oncology, A.H. Regional Cancer Centre, Cuttack, India

Early stage cancer cervix is curable. Radiotherapy is unpopular due to its side-effects. With radical surgery, urological complications are inevitable due to proximity of the urinary tract to uterus and disruption of innervation and vascularity of bladder and ureter. This results in voiding difficulty, storage problems, incontinence, impairment of bladder sensation, recurrent cystitis, urinary fistulas and ureteric strictures with hydronephrosis.

A retrospective study was done on patients with early invasive cancer cervix, who had undergone radical hysterectomy with bilateral pelvic lymphadenectomy, during the period, 1988-2001 and followed-up for 10 years in A.H. Regional cancer centre. Urological factors consequent upon surgery like, intraoperative urological injuries, urinary fistulas and bladder dysfunction like; straining during micturition, increased residual urine volume, storage problems and incontinence were noted.

A total number of 703 patients were studied. Intra-operative ureteric injury occurred in 1.1% of patients. The incidence of uretero-vaginal fistulas and vesico-vaginal fistulas were 0.85% and 0.28% respectively. Bladder dysfunction like, straining during micturition was noted in 52%, residual urine more than 50ml was seen in 25.03%, storage dysfunction in 25.03% and incontinence in 1.6% of patients.

Though urological complications of radical hysterectomy were frequent, they were't life-threatening and 10 year survival figures were high. Improvement of operative techniques by respecting the ureter, preserving the pelvic nerve bundle by Okabayashi's technique, control of urinary infection, detecting urological abnormalities pre and post-operatively will prevent or lessen, urological complications. Thus comprising radicality is not warranted in surgical management of early invasive cancer cervix.
Free Paper: Cervical Cancer
ABDOMINAL RADICAL TRACHELECTOMY (ART) FOR CERVICAL MALIGNANCIES: SURGICAL, ONCOLOGICAL AND FERTILITY OUTCOMES IN 142 PATIENTS
X. Wu, J. Li, J. Tang, D. Zhang, X. Han, X. Ju
Dept. Gynecologic Oncology, Fudan University Cancer Hospital, Shanghai, China

Objective: As ART is becoming a favoured fertility-sparing procedure, the relative contraindication of size≥2cm and worse fertility outcomes has been questioned.

Methods: We conducted a retrospective review of a prospectively maintained database of patients undergoing fertility-sparing ART for cervical malignancies at our institution from 04/2004 to 01/2013. A survey was also conducted 6 months after surgery to investigate reproduction related problems.

Results: 142 patients with cervical malignancies underwent laparotomy for planned ART. Eight (5.6%) needed immediate completion of radical hysterectomy due to unfavorable intraoperative findings. Median age was 28.8 years (11-44). Histology included 15 adenocarcinoma, 111 squamous, 7 adenosquamous carcinoma and 9 sarcoma. Median number of nodes evaluated was 25 (12-53); 45(31.7%) patients with pathologic risk factors received adjuvant therapy. 62 of 91 IB1 cases had tumor size ≥ 2 cm. No recurrence was observed at a median follow-up of 35.2 months (0.5-103). Nine patients developed postoperative cervical stenosis. Five patients required neo-cervix dilation before they finally recovered. For various reasons, only 20 patients attempted to conceive and 6 of them succeeded. Four of them delivered by cesarean section at 37-39 weeks, one miscarried and one is still expecting.

Conclusions: Although the rates of converting to hysterectomy may be relatively higher, ART provides secured oncological outcomes for selected patients whose tumors size ≥2cm. Cervical stenosis, which could be effectively prevented by installation of a tailed T-IUD, is the unique and major complication after ART. Influenced by social, familial and physical factors, only a small fraction of patients attempt to conceive after ART.
Free Paper: Ovarian Cancer
COMPARISON OF SENSITIVITY AND SPECIFICITY OF GATOT SCORE AND ITS MODIFICATION, ALSO RISK MALIGNANCY INDEX IN PREDICTING OVARIAN MALIGNANCIES

S.S. Mansur, S. Purbadi, Gynecology Oncology
University of Indonesia, Jakarta, Indonesia

Objective: The study was designed to evaluate the sensitivity and specificity of several methods in detecting ovarian epithelial malignancy.

Method: Four hundred and one subjects with suspected epithelial ovarian malignancy entered the study and performed anamnesis, physical examinations, laboratories studies and ultrasonography. We performed statistic analysis in term of sensitivity, specificity, ROC and optimal cut-off-point.

Results: From 401 observation subjects, revealed that Gatot Score possess the sensitivity of 73.7% and specificity of 38.7% (p = 0.000; LR 28.830), while RMI possess the sensitivity of 72.4% and specificity of 35.94% (p = 0.02, LR 9.588) for RMI 1, and the sensitivity of 76% and specificity of 30.9% (p = 0.05; LR 7.984) for RMI 2, all for cut-off point 200. Using cut-off point 125, RMI 2 gave sensitivity of 83.41% and specificity of 25.35%. Modification to Gatot Score was performed by re-weighting to its all variables, which resulted in Gatot Score Modification 1 with cut-off point of 7, sensitivity of 60.18% and specificity of 61.41% (p= 0.000, LR 44.228) and Gatot Score Modification 2 with cut-off point of 6, sensitivity 67.1% and specificity 65.2% ( p = 0.000; LR 36.806).

Summary: Both Gatot Score and RMI resulted in unsatisfactory output. By reassigning the weighting of all variables in Gatot Score, especially the specificity was improved in detecting the malignancy of epithelial type ovary. This measure was directed for patients in reproductive ages, thus increasing the possibility of true malignancy.
Free Paper: Cervical Cancer
EVALUATING THE VALUE OF PARTNERSHIPS IN CERVICAL SCREENING USING LIQUID BASED CYTOLOGY AND HIV TESTING IN PORT ELIZABETH, SOUTH AFRICA.

M. Mullah\textsuperscript{1,2}, V. Venter\textsuperscript{3}
\textsuperscript{1}Papsmear Laboratory, \textsuperscript{2}Faculty of Health Sciences, Biomedical Technology, University of Johannesburg, \textsuperscript{3}Cancer Association of South Africa, Johannesburg, South Africa

Introduction: Cervical Cancer is one of the most common gynecological cancers affecting women in South Africa. According to Herbst [2012] HIV positive women who are treated with Highly Active Antiretroviral Therapy (HAART), live longer and are at a significantly higher risk of developing cervical cancer.

Aim: To create awareness regarding the benefits of cervical screening and provide efficient and effective screening services.

Encourage participants to know their HIV status

Objective:

To enhance the current screening program in Port Elizabeth.

To enhance partnerships and develop guidelines to create awareness.

Design: Primary Health Care (PHC) clinics were invited to participate in this study. A mobile unit was stationed at clinics. Women were educated about the benefits of screening and women requesting screening were screened irrespective of age. [\textit{N}=2404].

Participants were encouraged to know their HIV status and testing with pre and post counseling were offered to all participants.

Patients and methods: Samples were collected in vials, patient demographics and clinical history recorded and samples sent to an independent medical technology laboratory in Johannesburg.

Materials and methods: Samples were prepared on the Thin Prep Processor 2000. Bethesda System was used for classification of cytology results.

Results: Results were made available to the screening site within two weeks and participants requiring colposcopy were referred to PHC clinics. Adequacy rate was 88.5% and prevalence of abnormal smears 24%. The number of HIV positive patients were 23%.

Conclusion: Enhancing partnerships will increase cervical screening and reduce the incidence of Cervical Cancer in South Africa.
Free Paper: Uterine Cancer, including Sarcoma

IMPACT OF SURGICAL TREATMENT DELAY IN STAGE 1 ENDOMETRIAL CANCER OUTCOMES

T. Le, I. Bambury, E. Choan, R. Samant, K. Lupe, M. Fung Kee Fung

University of Ottawa, Ottawa, ON, Canada

Objectives: Cancer Care Ontario had recommended to complete surgical treatment for endometrial cancer within 28 days after initial surgical consultation. We studied the impact of surgical delay in patients with stage 1 endometrial cancer.

Methods: Retrospective chart review was performed to identify all patients with stage 1 endometrial cancer. We defined surgical delay as being more than 42 days from initial biopsy diagnosis. Cox regression was used to assess the impact of: treatment delays, age, tumour grade, extent of myoinvasion, and use of adjuvant radiotherapy on survival outcomes. Logistic regression was used to identify factors associated with the use of adjuvant radiotherapy.

Results: 342 patients were reviewed. The median age was 62. Only 26% of patients had their surgery within 42 days. Median surgical wait was 8.3 weeks. Grade 3 tumours was seen in 45/342 (13.2%) patients. Depth of invasion was more than 50% in 84/331 (25.4%) of patients. Tumour was limited to the endometrium in 25% of patients. Adjuvant radiation therapy was used in 160/340 (47%) patients.

Median follow up time was 32.7 months. Disease recurrence was noted in 26/342 (7.6%). In the Cox models, surgical delay was not significantly associated with either progression free or overall survivals (p>0.05). Only grade 3 tumours had a significant adverse impact on survivals. Delay in surgical treatment was not associated with increase use of adjuvant pelvic radiotherapy in the logistic model (p=0.85).

Conclusion: Surgical treatment delay more than 6 weeks did not adversely impact prognosis in stage 1 endometrial cancer.
Free Paper: Uterine Cancer, including Sarcoma
IMPACT OF ADJUVANT RADIOTHERAPY DELAY IN STAGE 1 ENDOMETRIAL CANCER OUTCOMES
T. Le, I. Bambury, E. Choan, R. Samant, K. Lupe, M. Fung Kee Fung
University of Ottawa, Ottawa, ON, Canada

Objectives: To study the impact of adjuvant radiotherapy delay in patients with stage 1 endometrial cancer after surgical staging.

Methods: Retrospective chart review was performed to identify patients with stage 1 endometrial cancer treated postoperatively with adjuvant radiotherapy from 2000-5. Cox regression was used to assess the impact of: age, tumour grade, extent of myoinvasion, and time to initiation of adjuvant radiotherapy after surgery (< 4 weeks, 4-8 weeks, >8 weeks) on disease recurrence and overall survival.

Results: 153 patients were reviewed. The median age was 65. Grade 3 tumour was diagnosed in 28/153 (18.3%) patients. Depth of invasion was more than 50% in 62/151 (41%) of patients. External beam adjuvant radiation therapy was used in 51/153 (33.3%). Median time to adjuvant radiation was 7.6 weeks. Distribution of time to initiation of radiotherapy after surgery was: less than 4 weeks (4.2%), 4-8 weeks (36.6%), more than 8 weeks (59.2%).

Median follow up time was 59.2 months. Disease recurrence was noted in 12/153 (7.8%). In the multivariate Cox model, time to initiation of adjuvant radiotherapy of >8 weeks was not significantly predictive of progression free or overall survival (p>0.05). Grade 3 tumour (HR=17.81 95%CI =2.13-148.93 p=0.008) as well as myoinvasion of >50% (HR=6.55 95%CI =1.76 -24.38 p=0.005) were significantly predictive of time to recurrence. Only Grade 3 tumour (HR=8.96 95%CI =2.11-38.08 p=0.003) was significantly predictive of overall survival.

Conclusion: Time to initiation of adjuvant radiotherapy >8 weeks did not seem to adversely impact prognosis in stage 1 endometrial cancer.
Free Paper: Uterine Cancer, including Sarcoma

SALVAGE CYTOREDUCTIVE SURGERY FOR RECURRENT ENDOMETRIAL CANCER: WHO WILL GAIN BENEFIT FROM IT?

Y. Ren¹, H. Wang¹, B. Shan¹, D. Shi², Uterine Cancer Program

¹Department of Gynecologic Oncology, ²Department of Pathology, Fudan University, Cancer Center, Shanghai, China

Background: Recent studies suggested the survival benefits of salvage cytoreductive surgery (SCR) for patients with recurrent endometrial cancer (REC), but the surgical selection indications still undetermined.

Objectives: To determine the survival significance of satisfied SCR (residual disease < 1.0cm) and discuss the selection indications for it.

Methods: Between January 1995 and May 2012, 75 patients with REC who underwent second cytoreductive surgery were reviewed from databases.

Results: The median recurrence interval was 18 months (3-372). Median age at recurrence was 56 years (33-76). 43 patients (57.3%) had R0 (no residual), 15 patients (20.0%) had R1 (residual 0.1~1.0cm), and 17 (22.7%) had R2 (residual >1 cm) resection. The median survival time was 18 months, and 5-year overall survival (OS) rate were 42.0%. Residual disease >1cm and low histology grade were significantly associated with a worse OS in multivariate analysis (p=0.001 and 0.012, respectively). Age, recurrence interval, recurrence tumor size and tumor number were associated with satisfied SCR.

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<tr>
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<th>P value of univariate analysis</th>
<th>P value of multivariate analysis</th>
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<tr>
<td>Age</td>
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<td>0.004</td>
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[Fig1. Survival curve of residual disease]
Abstracts presented at the International Gynecologic Cancer Society Regional Meeting, April 11-13, 2013

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<td>Recurrence interval</td>
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<td>Multiplicity of recurrence</td>
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<td>0.016</td>
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<td>Tumor size</td>
<td>0.059</td>
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[Tab1. Logistic regression for SCR]

**Conclusion:** Satisfied SCR were the strongest prognostic factor for REC. Patients with young age, tumor size < 6cm, single recurrence, and long recurrence interval were more likely to achieve satisfied SCR.
Free Paper: Cervical Cancer
A COMMUNITY BASED SCREENING PROGRAM FOR EARLY DETECTION OF UTERINE CERVIX CANCERS AMONG LOW SOCIO-ECONOMIC WOMEN IN MUMBAI, INDIA

G.A. Mishra, S.V. Kulkarni, S.D. Gupta, S.S. Shastri
Preventive Oncology, Tata Memorial Hospital, Mumbai, India

Background: Cervical cancer is the most common cancer among Indian women. India alone contributes to 25.41% and 26.48% of the global burden of cervical cancer cases and mortality, respectively.

Aims: The major aims are to create awareness, detect pre-cancers and early cervical cancers and facilitate confirmation of diagnosis among screen positives and treatment and follow-up among diagnosed cases.

Methods: This is community based screening program for early detection of common cancers (breast, uterine cervix and oral) among socio-economically disadvantaged women in Mumbai, India. The process involves selection of slum clusters, area mapping, conducting household surveys, invitation for health awareness sessions and screening the eligible women for common cancers by trained primary health care workers with use of simple low-cost technology (VIA and VILI for cervical screening) at temporarily set up clinic within the community. The program was initiated in November 2010 and is planned to cover 125,000 disadvantaged population in five years. Cervical cancer screening results are discussed.

Results: 21090 population with 3680 eligible women have been covered by the program till date. The compliance for screening for uterine cervix is 85.80% and the screen positivity rate is 14.79%. 82.11% of screen positive women complied for confirmatory diagnostic investigations to the nodal hospital. Twenty five cervix pre-cancers and two invasive cervix cancers were diagnosed among the screened women and all of them have complied to treatment.

Conclusion: Thus, this program has raised awareness, detected pre-cancers and invasive uterine cervix cancers among the disadvantaged asymptomatic women and assisted them in treatment.
Poster Presentation: Breast Cancer

FACTORS INFLUENCING BREAST CANCER SCREENING BEHAVIOR AMONG IRANIAN WOMEN

R. Tahmasebi, A. Noroozi
Bushehr University Medical Sciences, Bushehr, Iran

Background: Early detection of breast cancer is of great importance to improve women's health and to decrease the cost related to cancer death. Therefore, recognition of variables related to breast cancer screening behaviors is necessary.

Objectives of this study were to identify the rates of breast self-examination (BSE) performance and mammography use in Iranian women, and to characterize the demographic and cognitive factors associated with their breast cancer screening behavior.

Method: Data were collected from a convenience sample of 388 females, using an adapted version of Champion's revised Health Belief Model Scale.

Results: The results showed that 7.5% of the participants performed BSE on a regular monthly basis, and among the women aged 40 and older, 14.3% reported having had at least one mammography in their lifetime. Perceived self-efficacy and perceived barriers to BSE were significant predictors for BSE performance. For having mammography, health motivation was the main predictor.

Conclusion: Eliminating barriers and increasing perceived self-efficacy with an emphasis to make the women acquainted with BSE performance; as well as increasing health motivation of women and persuading of physicians for clinical breast examination (CBE) performance with low cost and free access to mammography, are important to promote BSE and mammography.
Poster Presentation: Breast Cancer
DETERMINANTS OF BREAST SELF-EXAMINATION PERFORMANCE AMONG IRANIAN WOMEN: AN APPLICATION OF THE HEALTH BELIEF MODEL

A. Noroozi, R. Tahmasebi
Bushehr University Medical Sciences, Bushehr, Iran, Bushehr, Iran

Breast cancer is one of the most common cancers among women. Screening behavior rates are low in the world. Therefore, the purpose of the current study was to investigate breast self-examination (BSE) rate and the relationships of Health Belief Model (HBM) constructs for predicting BSE. Path analysis was used to examine both one-way direct and indirect effects of HBM factors on BSE in this population (N=382). Data were collected by a part of Champion's HBM Scale (CHBMS) and a self-administered questionnaire. The results showed that 7.6% of the participants reported performing BSE regularly. The final model provided a good fit to the data, with 13 variables explaining 62% of the variance in BSE. Perceived self-efficacy was intermediate construct between modifying factors and HBM constructs. Also, perceived self-efficacy and perceived benefits were the most highly related to BSE. The results suggest that HBM is a useful framework for identifying factors influencing the use of BSE in Iranian women.
GENETIC POLYMORPHISMS IN ESTROGEN RECEPTOR ALPHA (RS 1801132) AND BREAST CANCER RISK

S. Abbasi¹, S. Kalbasi², Iranian women with breast cancer

¹Medical Biotechnology, School of Allied Medicine, Tehran University of Medical Sciences, ²University of Tehran, Tehran, Iran

Background: The Iranian breast cancer patients are relatively younger than their Western counterparts. Evidence suggests that alterations in estrogen signaling pathways, including estrogen receptor-α (ER-α), occur during breast cancer development in Caucasians. Epidemiologic studies have revealed that age-incidence patterns of breast cancer in Asians differ from those in Caucasians. Genomic data for ER-α in either population is therefore of value in the clinical setting for the Iranian breast cancer.

Methods: A case-control study was conducted to establish a database of ER polymorphisms in Iranian women population in order to compare Western and Asian with Iranian (Asian-Caucasians) distributions and to evaluate ER-α polymorphism as an indicator of clinical outcome. DNA samples were prepared from Iranian women with breast cancer referred to Imam Khomeini Hospital Complex. PCR single-strand conformation polymorphism technology was performed.

Results: A site of silent single nucleotide polymorphism (SNP) CCG/CCC rs1801132 was found, as reported previously in Western and Eastern studies. The frequency of allele 1 in codon 325 was significantly higher in the breast cancer patients (39.6%) than control individuals (28.9%; P = 0.007). The allele 1 had also significant association with the occurrence of lymph node metastasis.

Conclusion: Data suggested that ER-α polymorphisms in exon 4 codon 325 was correlated with various aspects of breast cancer in Iran. ER-α genotype, as determined during presurgical evaluation, might represent a surrogate marker for predicting the breast cancer lymph node metastasis.
Poster Presentation: Breast Cancer

CLINICAL VALUE OF 18(F) FDG-PET/CT FUSION IMAGING IN THE MANAGEMENT OF BREAST CANCER, IT IS CRYSTAL CLEAR AND SUPERIOR

K. Peepre

Nuclear Medicine Unit, Radiation Oncology, Gandhi Medical College, Bhopal, India

Background: 18(F)FDG-PET/CT diagnose primary and identified distant metastatic disease not seen on CECT in 20% of the patients & promise in determining response to chemotherapy with 100% sensitivity and 85% specificity.

Aims: To diagnose, staging, re-staging and monitoring the response to treatment.

Methods: A total of 46 patients, were seen in the department of nuclear medicine, AIIMS, New Delhi, India, from October, 2010 to April, 2011. A standard dose of 18(F) FDG of 10 mCi (370 MBq), was injected and imaging was performed with CT and PET.

Results: Out of 46 cases n=1 (2.17%) had bilateral breast cancer. Positive lymph nodes were found more often in larger tumors > 2 cm. Lymph nodes metastasis was seen in n=20 (43.47%), n=10 (21.73%) had lung metastasis, n=11 (23.93%) had bone metastasis and recurrent disease was noticed in n=11 (23.93%) patients. No evidence of disease was observed in n=11 (23.93%) patients during follow-up evaluation. Eight (17.39%) patients had progressive disease. Residual disease was observed in n=8 (17.39%) patients in 3rd follow-up with PET-CT. Pleural effusion was found in n=5 (10.86%) patients. Metastasis were noticed in liver in n=4 (8.69%), in adrenal gland in n=3 (6.52%), in thyroid gland in n=3 (6.52%) and in brain in n=2 (4.32%). One (2.17%) patient showed partial response to treatment. We had observed SUVmax values from 31-39.

Conclusions: 18(F) FDG-PET/CT is a superior and an adjunct to USG, mammography, CT, and MRI for staging patients of breast cancers with distant metastasis, helps in monitoring tumour response to treatment.
Poster Presentation: Breast Cancer
RADIONUCLIDE 99MTC-MDP IMAGING IS EXTREMELY SENSITIVE AND SUPERIOR TO CONVENTIONAL RADIOGRAPHY IN THE DETECTION OF BONE METASTASIS IN BREAST CANCER
K. Peepre
Radiation Oncology, Gandhi Medical College, Bhopal, India

Background: Detection of bone metastatic lesions allows radiation therapy or surgical interventions to prevent pathological fractures from disabling the patients. High sensitivity of bone scanning in determining the presence and extent of metastatic disease makes extremely important tool in decision making. Bone scans demonstrate metastatic lesions much earlier than X-ray, C.T.,MRI.

Aims: To determine the potential role of 99mTc-MDP bone scintigraphy for the evaluation of bone metastases in carcinoma breast.

Methods: This study was performed in the division of nuclear medicine, department of radiation oncology, Kamla Nehru Hospital, Gandhi Medical College, Bhopal, India. A total of 53 patients, all females, in the range of 25 to 72 years old. 50 out of 53 patients was histopathologically diagnosed as cancer breast referred to nuclear medicine for bone scan and two patients came directly with the history of lump in breast with pain in joints. All were scanned before and, after surgery, radiotherapy, chemotherapy and during follow-up. 22 to 25 mCi of 99mTc-MDP was injected IV, static anterior and posterior views of entire skeleton was taken under the ECIL gamma camera.

Results: Total 53 patients were investigated. On visual analysis there was positive scan findings (bone metastases) in 17 patients (33.4%) and negative scan findings (normal bone scan) in 34 patients (66.6%).

Conclusions: Bone scintigraphy is non-invasive technique used for detection of breast cancer bone metastasis. It is a very sensitive and specific method, cheaper than C.T.,MRI, PET-CT procedures. Quality of life will be good, If diagnosed early, accurately and managed properly.
Poster Presentation: Breast Cancer
TARGETING PRO-INFLAMMATORY NF-ΚB SIGNALING CASCADE FOR THE PREVENTION AND TREATMENT OF BREAST CANCER

G. Sethi
National University of Singapore, Singapore, Singapore

Introduction: Inflammation has been found to play a major role in breast cancer development through the activation of transcription factor NF-κB. NF-κB, a transcription factor, is present normally in the cytoplasm as an inactive heterotrimer consisting of p50, p65 and IκBα subunits. When activated, NF-κB translocates to the nucleus as a p50-p65 heterodimer.

Objective: NF-κB has been linked to the development of breast cancer for several reasons. First, various carcinogens and tumor promoters have been shown to activate NF-κB. Second, activation of NF-κB has been shown to block apoptosis and promote proliferation. Third, the tumor microenvironment can induce NF-κB activation. Fourth, constitutive expression of NF-κB is frequently found in breast cancer cells. Fifth, NF-κB activation induces resistance to chemotherapeutic agents. Sixth, several genes involved in tumor initiation, promotion, and metastasis are regulated by NF-κB. Seventh, various chemopreventive agents have been found to downregulate the NF-κB activation. All these observation suggest that NF-κB is a major mediator in breast tumorigenesis and thus can be used as a target for chemoprevention and for the treatment of breast cancer.

Results: We will present the data that shows that agents derived from natural sources such as guggulsterone are potent inhibitors of NF-κB activation in breast cancer, and can suppress the expression of genes involved in proliferation, invasion and metastasis in vitro and in vivo.
Poster Presentation: Breast Cancer
ETHNIC AND SOCIO-ECONOMIC RISK FACTORS FOR BREAST CANCER IN CENTRAL SUDAN

F.A. Hamad
Biochemistry, Gezira University, Wad-Madani, Sudan

Introduction: The relationship between ethnic, socio-economic and female breast cancer risk is supported by scientific confirmation, but few previous studies could adjust for all relevant potential confounding factors.

Aim and case Design: The aim of this study was to examine how risk for breast cancer varies with ethnic and socio-economic and to identify factors that explain this variation, using data from a prospective cohort study including 852 patients and other 260 matched females cancer free were the control group, from Central of Sudan who responded to an extensive questionnaire in 2008/2010.

Material and method: Descriptive statistics with $\chi^2$-test was applied and the Cox Proportional Hazards Model was used to calculate relative risks (RR) with 95% confidence intervals (CI). Result: Breast cancer rates increased across Afro-associated ethnical group women (68.4%) had the highest age standardized rates, P< 0.000. Women with (<12) years of education (61.7%) had increased risk compared to the highest educated women (≥17 years) (Age adjusted RR 3.821, 1.057, 95% CI: 2.793-5.229, 1.027-1.088, P< 0.000). The breast cancer risk was increased with high significant affected among; ethical groups, education levels, residues, family history, martial statues, Body Mass Index (BMI), employment statuses and patient incomes. The relative risk was slightly strong with age at menarche<13, age at menopausal ≥45 and the high.

Conclusion: The conclusions of our study suggest a clear positive gradient in risk for breast cancer by ethnic and level of education which can be completely explained by established breast cancer risk factors.
Poster Presentation: Breast Cancer
COMPARATIVE STUDY: HYPERCALCEMIA IN BREAST AND PROSTATE CANCER PATIENTS ATTENDING THE NATIONAL CANCER INSTITUTE (NCI)-CENTRAL SUDAN

F.A. Hamad¹, D.O. Abuidris²
¹Biochemistry, Gezira University, ²Oncology, Dean of National Cancer Institute, University of Gezira, Wad-Madani, Sudan

Objective: The aim of this study was to find the incidence of Hypercalcemia in new cases with breast and prostate cancers at NCI, Wad-medani, Sudan.

Material and methods: The study was performed on 400 breast and prostate cancer patients who attend the NCI, Gezira University during the period from Jan-Dec 2008.

Patients chosen randomly from the cases, 200 cases were breast cancer and 200 were prostate cancer patients. The biochemical parameters measured were serum calcium and serum albumin. They were measured by spectrophotometer. Anthropometrics measurements determined were weight, height and the body mass index (BMI). A questionnaire was designed in order to obtain information regarding: demographic factors and the stage of cancer.

Results: Age range for female breast cancer patients was (25-90) years and mean age was (48.74±13.04), but for males were (71.04 ±7.04). Hypercalcemia was detected in 44(11.0%) of the patients. This is similar to the internationally published rates (10%-20%). Hypercalcemia was appearing in 28(14.0 %) of breast cancer and 16(8.0 %) of prostate cancer patients. 47.6% of the female were having high body mass index (BMI) over 25 kg/m². 77.3% of patients presented with advanced disease (stage ІІІ and ІV).

Conclusion: Calcium and albumin levels among Sudanese breast and prostate cancer patients were similar to the internationally published levels. Hypercalcemia is common condition among breast and prostate cancer patients and should be checked whenever there is a symptom because it can lead to many serious complications and death.
Poster Presentation: Breast Cancer
BELIEFS AND ATTITUDES ABOUT BREAST CANCER AND SCREENING PRACTICES AMONG ARAB WOMEN LIVING IN QATAR

T.T. Donnelly\textsuperscript{1,2}
\textsuperscript{1}University of Calgary-Qatar, Doha, Qatar, \textsuperscript{2}University of Calgary, Calgary, AB, Canada

\textbf{Background:} Despite rising incidence rates, breast cancer screening rates among women in Qatar remain low. Previous studies indicate the need to better understand the many complex beliefs, values, and attitudes that influence Arabic women's health seeking behavior for the development of culturally-appropriate awareness and effective intervention strategies to address breast cancer in the Middle East.

\textbf{Aims:} This study investigates BCS activities, beliefs and attitudes of Arabic women in Qatar.

\textbf{Methods:} A multi-center, cross-sectional quantitative survey of 1,063 (87.5\% response rate) female Qatari citizens and Qatari Arabic-speaking residents, 35 years of age or older, was conducted in Qatar from March 2011 to July 2011.

\textbf{Results:} In addition to low levels of awareness and participation rates in BCS, less than half of the women interviewed believed breast cancer can be prevented. While the majority would want to know if they have cancer, the main reasons for not planning BCS were lack of a doctor recommendation, fear and embarrassment. Other factors related to BCS practice indicate women with self-perceived good-excellent health, who believe cancer can be prevented and may be hereditary, do not believe cancer is due to God's punishment or bad luck were more likely to practice BCS.

\textbf{Conclusions:} These findings indicate that a variety of channels (health care providers, media, breast cancer survivors, religious leaders) should be utilized to create culturally-appropriate intervention and awareness programs about breast cancer, BCS, and the benefits of early detection of breast cancer to help reduce mortality rates amongst Arabic-speaking women living in Qatar.
Poster Presentation: Breast Cancer
THE CORRELATION BETWEEN HORMONAL RECEPTORS AND CLUSTERIN EXPRESSION IN BREAST CANCER CELL LINE

Y. You, Y.S. Won, S.J. Lee, D.C. Park

The Catholic University, Seoul, Republic of Korea

Objective: This study was performed to identify the clusterin expression according to the hormonal receptor status in breast cancer cell line.

Method: The expressions of estrogen receptor α, β, progesterone receptor AB, B, and clusterin are to be identified from the breast cancer cell line by using RT-PCR and Western blotting. Estrogen and progesterone were treated by concentrations to each cell line respectively and the association with clusterin expression depending on the activations of estrogen receptor and progesterone receptor by real-time PCR.

Results: Among the breast cancer cell lines that were MDA MB 231, BT474 and T47D, MDA MB 231 had not shown little expressions of estrogen receptor and progesterone receptor whereas BT474 and T47D had receptors of estrogen and progesterone in spite of the difference in expression level. When treating Estrogen and progesterone, the cell line MDA MB 231 that had nearly no expression of estrogen receptor, progesterone receptor had shown increase in the expression of clusterin (p<0.001) while the cell lines BT474 and T47D that have both of estrogen receptor and progesterone receptor had shown decrease in the expression of clusterin and the extent of decrease had shown the tendency to be inversely proportional to the expression level of hormone receptor (P<0.001).

Conclusion: Among the breast cancer cell lines, expression of clusterin at the treatment time of estrogen and progesterone had association with the expression level of hormonal receptor and the expression of clusterin is inversely proportional to the expression level of hormone receptor.
Poster Presentation: Breast Cancer

THE EVALUATION OF THE ENDOMETRIAL THICKNESS OF AMENORREA BREAST CANCER PATIENTS TREATED WITH TAMOXIFEN

H. Salari, Z. Yousefi, F. Vahidroodsari, S. Ayati
Ghaem Hospital / Mashhad University of Medical Sciences, Mashhad, Iran

Background and aims: Breast cancer is one of the most common cancers in women worldwide and one of its most desirable treatments is tamoxifen. The reported side effect associated with tamoxifen is endometrial thickness and increased risk of endometrial cancer. The aim of this study was to assess the influence of tamoxifen on the endometrial thickness in amenorrhea breast cancer patients treated with tamoxifen.

Methods: This descriptive-analytic, cross-sectional study was conducted in Radiotherapy Departments of Mashhad University of Medical Sciences over a period of seven years. 162 patients treated with tamoxifen whose bleeding cycle had been disrupted were selected and the relationship between tamoxifen usage and endometrial thickness was investigated in them. In addition, the relationship between abnormal vaginal bleeding and abnormal endometrial sonographic findings was assessed. Data analysis was done by using t-test and Chi-square test.

Results: There was a significant relationship between tamoxifen usage and abnormal endometrial thickness while the greatest relationship was observed in the first year of treatment. The relationship between abnormal vaginal bleeding and abnormal endometrial sonographic findings was significant (P=0.001). The incidence of endometrial cancer in tamoxifen users was more than general population (0.61% vs. 0.1%).

Conclusion: Considering the findings of this study, in the presence of abnormal sonographic and clinical observations indicating abnormal vaginal bleeding, pathological evaluation of the endometrial biopsy should be carried out for patients who use tamoxifen.
Poster Presentation: Breast Cancer
PREDICTION MODEL FOR NONSENTINEL LYMPH NODE STATUS IN BREAST CANCER PATIENTS WITH METASTATIC SENTINEL LYMPH NODES
K.S. Kim
Surgery, Ajou University, Suwon, Republic of Korea

Introduction: Many prediction models had been developed for saving of axillary lymph node dissection (ALND) in case of no additional lymph node metastasis. The goals of this study are to identify predictive factors of non-SLN metastasis and to develop most simple prediction model.

Methods: We analyzed 314 breast cancer patients in two different institutions as training dataset. The independent validation dataset consisted of 82 breast cancer patients in one institute. Various models were developed through logistic regression model. The receiver operating characteristic (ROC) curve was drawn and the area under the ROC curve (AUC) was calculated to assess the discriminative power of other prediction models.

Results: Multivariate analysis revealed that non-SLN status was predicted by increasing tumor size, lymphovascular invasion, increasing number of metastatic SLN, and decreasing number of nonmetastatic SLN. Based on multivariate logistic regression, we developed model for predicting non-SLN metastasis. The AUC for our model was superior to other previously published prediction models: Logistic model (0.817), MSKCC nomogram (0.786), Louisville score (0.758), Tenon score (0.751), and MD Anderson score (0.691) respectively when identical validation dataset were applied.

Conclusions: Non-SLN metastasis correlated with increasing T stage, presence of lymphovascular invasion, increasing number of metastatic SLN, and decreasing number of nonmetastatic SLN. Our simplest prediction model using only four factors appears to be as effective and accurate as other machine learning tools and other previous prediction models for selecting patients for whom ALND might be avoided.
Poster Presentation: Breast Cancer
PREDICTIVE VALUE OF BONE MARROW MICROMETASTASIS DETECTED BY NESTED RT-PCR FOR CYTOKERATIN-19 IN BREAST CANCER PATIENTS

K.S. Kim
Breast Cancer Surgery, Ajou University Hospital, Suwin, Republic of Korea

Background: The purpose of this study was to reestablish the meaning of cytokeratin 19 mRNA in bone marrow aspirates and their possible correlation with distant disease free survival in long term follow up.

Materials and methods: Between June 2001 and December 2003, bone marrow samples were obtained from 248 breast cancer patients at the time of surgery. We separated the mononuclear fraction from the samples and carried out nested RT-PCR for the detection of cytokeratin 19 mRNA using two different pairs of primers. The clinical and pathological data and the results of the bone marrow cytokeratin 19 nested RT-PCR was reviewed and analyzed together with clinical results on distant metastasis free survival and overall survival.

Results: The median follow up time was 66 months. The median age of patients was 46 years old. Sixty-six (26.6%) of the 248 samples were cytokeratin-19 positive. According to staging, twenty cases (25.6%) were positive among 78 patients with stage I, 33 cases (28.4%) in 116 patients with stage II and 13 cases (28.9%) in 45 patients with stage III. Sixteen patients (24.3%) in the 66 cytokeratin 19 positive group showed systemic relapse. Twenty three patients (12.5%) in the 182 cytokeratin 19 negative group showed systemic relapse. Cytokeratin 19 positive group have shorter distant disease free survival rate than cytokeratin 19 negative group (p=0.015).

Conclusions: Detection of occult micrometastasis in bone marrow using nested RT-PCR assay for cytokeratin 19 could be useful predictive factor for the systemic breast cancer relapse.
Poster Presentation: Breast Cancer
PRESENCE OF HUMAN PAPILLOMA VIRUS SEQUENCES IN BREAST CANCER TISSUES AND ASSOCIATION WITH HISTOPATHOLOGICAL FEATURES

N. Sharifi, G. Seyed Alavi, A. Sedeghian
Ghaem Hospital / Mashhad University of Medical Sciences, Mashhad, Iran

Introduction: Several studies confirmed oncogenic roles of viral agent in Development of breast cancer. Human papilloma viruses especially high risk types (16, 18), are demonstrated in epithelial malignancy of genital and extra genital organs. This study was done to examine the presence of high and Low risk groups of human papilloma virus (HPV) in breast cancer tissues and their correlation with histopathological characteristics.

Methods: Fifty specimens of breast cancer tissues and 29 samples of non-malignant breast tissues were studied for the presence of DNA of HPV of the low risk groups(1,6) and high risk groups(16,18) by polymerase chain reaction (PCR) with HPV consensus primers.

Results: Papilloma virus DNA was detected in 24 (48%) samples of breast carcinoma that 26% of them harbored high-risk DNA sequences of HPV in their tumors (13 patients) and 8 patients (%16) had low risk HPV infection .Three breast cancer tissues were doubly infected by high and low risk HPV (6%). All of none malignant mammary tissues were free of HPV infection (high and Low risk). In this study, there was no correlation between the presence of DNA of HPV and prognostic factors of breast cancer such as age (P=0.448), axillary lymphadenopathy (P=0.749), histopathologic grade of tumor (P=0.946), tumor size (P=0.946) and laterality of the tumor.

Conclusion: The presence of high and low risk DNA sequences of HPV in the breast cancer tissues was verified in this study and a probability association in the acceleration and development of breast malignancy were confirmed.
Poster Presentation: Breast Cancer

ANALYZE THE EFFECT OF G-CSF (GRANULOCYTE-COLONY STIMULATING FACTOR) ON STERNAL BONE MARROW DURING BREAST MRI

P. Kumar, L. Scorza, R. Smith, E. Bonaccio

Radiology, Roswellpark Cancer Institute, Buffalo, NY, USA

Purpose: To determine whether diffuse sternal marrow signal enhancement on breast magnetic resonance imaging (MRI) is a common effect of G-CSF therapy.

Materials and methods: Women undergoing breast MRI were identified for analysis of sternal marrow signal among two patient groups: 31 who had MRI after G-CSF therapy and 30 who did not have G-CSF. Baseline and follow-up breast MRI was evaluated for sternal signal enhancement using T1 fat-suppressed sagittal images of the sternum, both pre- and post-contrast. Signal enhancement was analyzed quantitatively and qualitatively. For quantitative analysis, one reader defined oval regions of interest (ROI) over the middle third of the sternum on pre- and post-contrast images of both baseline and follow-up studies; the percentage of interval change was determined. For qualitative analysis, post-contrast images were compared to pre-contrast images, and the enhancement pattern was categorized as: definitely greater, probably greater, the same, or decreased. The G-CSF group was further divided into group A (< 30 days between G-CSF and MRI) and group B (>30 days) for quantitative and qualitative analysis.

Results: Quantitative analysis for interval change in enhancement between the two groups showed no statistical significance (P value =0.2). Qualitative analysis for interval increase in enhancement was 58.9% for the G-CSF group compared to only 14% for the control (P value< 0.001).

Conclusion: Treatment with G-CSF in breast cancer increases sternal marrow enhancement on MRI (< 30 days interval) on qualitative analysis which is better appreciated when compared to the previous baseline study.
Poster Presentation: Breast Cancer

WOMEN'S UNDERSTANDING OF THEIR PERSONAL BREAST CANCER RISK - DOES EDUCATION LEVEL MATTER?

S. Herman¹, J. Herman², J. Faro³, S. Pachtman³, J. Indelicato⁴

¹SKA, Hewlett, ²Hofstra North Shore-LIJ Medical School, West Hempstaed, ³Long Island Jewish Medical Center, New Hyde Park, ⁴Touro College, Bay Shore, NY, USA

Objective: A woman's understanding of her own breast cancer risk is an important precursor for care. A valid estimate would allow for greater opportunity to consider early detection and risk-reduction. This study compared patients' appreciation of their breast cancer risk versus calculated risk modeling and the data was parsed by educational level.

Methods: This study was carried out over the course of one year (January 2011 to January 2012). IRB approved, anonymous questionnaires were filled out by women while at participating mammography centers using a paper-based survey. The questionnaire included 25 pre-piloted questions. Among questions concerning breast cancer risk, patients were asked to estimate their own breast cancer risk by age 90.

Results: 9,873 respondents qualified for analysis. Only 707 (9.4%) were in line with their calculated Gail model risk. When parsed by education level, of the 1,558 who reportedly attended High School, 53.7% underestimated risk, 6.6% were in line and 45.9% overestimated their risk. Of the 2,092 who attended some college, 48.1% underestimated, 7.5% were in line and 44.4% overestimated their risk. Of the 3,174 who completed college, 35.2% underestimated, 11.6% were in line and 53.2% overestimated their risk. Of the 2,337 women who studied for an advanced degree, 40.1% underestimated risk, 11.0% were in line and 48.7% overestimated their risk.

Conclusions: Women were unable to correctly identify their breast cancer risk by a wide margin. Lower education level correlated with a significant underestimation of risk while an increase in education level correlated with an overestimation.
Poster Presentation: Breast Cancer
DISCUSSING PERSONAL BREAST CANCER RISK, ARE PHYSICIANS DOING ENOUGH?

S. Herman 1, J. Herman 2, S. Pachtman 3, J. Indelicato 4

1SKA, Hewlett, 2Ob/Gyn, Hofstra North Shore-LIJ Medical School, 3Long Island Jewish Medical Center, New Hyde Park, 4Touro College, Bay Shore, NY, USA

Many women rely on their gynecologist as an important source for accurate health information. A woman’s understanding of her own breast cancer risk is an important precursor for care. A valid estimate would allow for a greater opportunity to consider early detection via increased surveillance. Risk-reduction options including chemopreventive medications may also be considered. Our study sought to determine how often patients communicated with their gynecologist regarding their personal risk of breast cancer.

Between January 2011 and March 2012 anonymous paper-based questionnaires were filled out by 15,004 women while awaiting mammography. The questionnaire included 25 pre-piloted questions. Women ages 35-69 were included. 2,306 respondents were excluded due to age. 1,286 age-qualified women did not sufficiently complete the questionnaire. Thus, 11,414 respondents qualified for inclusion in our analysis.

Of the 11,414 included women, when asked, “When was the last time your gynecologist discussed your personal breast cancer risk with you?” 3538 (31.00%) responded that they had discussed their personal breast cancer risk “within the last year”, 1613 (14.13%) responded “in the last 1-3 years” and 669 (5.86%) responded “greater than 3 years ago”. 5114 (44.8%) answered that they have never discussed personal breast cancer risk with their gynecologist. 480 (4.21%) did not answer.

Patients must have a better understanding of their risks, if they are to make educated decisions about surveillance and risk reduction. Study findings should help refocus educational efforts because increased knowledge of breast cancer risk factors will enable providers to tailor an individual’s medical treatment plan.
Poster Presentation: Breast Cancer
GYNECOLOGICAL CANCERS - CUTANEOUS METASTASIS AND ITS VARIOUS PRESENTATIONS

S. Pai¹, H. Sripathi², S. Prabhu¹, R. Rao¹
¹Department of Dermatology, ²Dermatology, Kasturba Medical College, Manipal University, Manipal, India

Background: Cancer metastasis is quite devastating to the patient as well as the physician and may herald the onset, dissemination or recurrence of malignancy. Breast carcinoma metastasis is the most common carcinoma encountered by dermatologists and it presents in various morphological and histological forms. A high degree of suspicion is required to make a diagnosis especially when it presents in unusual site or in the absence of primary malignancy. Here we present 8 cases of carcinoma breast and one case each from cervix and endometrium with cutaneous metastasis.

Methods: All the histopathologically proven cutaneous metastatic tumors of carcinoma breast, cervix and endometrium from 2010 to 2012 were included and analyzed with respect to their appearance, duration of illness and site of involvement.

Results: Out of 8 cases of proven cutaneous metastasis from infiltrative ductal carcinoma the common cutaneous manifestation was non-tender indurated nodules. The common sites of metastasis were chest wall, abdomen, shoulder, back and the other breast. Nodulo-ulcerative growth was the second common presentation. One patient had carcinoma erysipeloides. Metastases from carcinoma cervix and endometrium were seen in one case each.

Conclusion: All the cases of unusual skin lesions in a known case of gynecological malignancy should be biopsied and thorough search for other evidence of metastasis to be made. The prognosis of a patient with cutaneous metastasis depends primarily on the pathology and biological behavior of the primary neoplasm and its response to treatment.
Poster Presentation: Breast Cancer

COMPARATIVE ANALYSIS OF INFILTRATING DUCTAL CARCINOMA AND INFILTRATING LOBULAR CARCINOMA OF BREAST IN A TERTIARY CARE HOSPITAL IN INDIA

K. Pai¹, P. Baliga²

¹Pathology, KMC, ²Pathology, KMC International Center, Manipal University, Manipal, India

Introduction: Infiltrating ductal carcinoma (IDC) and infiltrating lobular carcinoma (ILC) are the two most common types of invasive breast cancers, are considered to be two distinctive types of invasive breast cancers with characteristic morphology, immunohistochemical profile and clinical behaviour. This study was conducted to compare the clinicopathological features of IDC and ILC.

Methods: Clinicopathological features, including hormone receptor profile and E-cadherin expression of patients with a diagnosis of ILC, were retrospectively investigated and compared with that of infiltrating ductal carcinoma-not otherwise specified (IDC-NOS) during a 3 year period from Jan 2006-Dec 2008.

Results: ILC constituted 9.9% of all invasive cancers and IDC (NOS) accounted for 74.8% and rest belonged to other types of invasive breast cancers. ILC occurred in slightly younger individuals when compared to IDC. There was no difference in tumor size, nodal status, and treatment modalities except hormone therapy. ILC however showed higher incidence of distant metastases, and more frequently metastatized to bone and CNS, while IDC-NOS metastasized more frequently to the lung and bone. The ILC group showed more estrogen receptor expression, higher bilaterality and loss of E-cadherin expression.

Conclusion: The incidence of ILC was 9.9% Indian breast cancer patients. Compared to IDC-NOS, ILC showed some different features such more frequent bilateral breast involvement, higher incidence of distant metastases, with greater propensity for metastases to bone and CNS, more frequent expression of estrogen and progesterone receptor expression, and loss of E-cadherin expression.
Poster Presentation: Breast Cancer

MUTATIONS ANALYSIS OF BREAST CANCER SUSCEPTIBILITY GENES IN IRANIAN PATIENTS

F. Keshavarzi¹, P. Ashtari², genetics

¹Department of Biology, Sanandaj Branch, Islamic Azad University, Sanandaj, ²Agriculture, Medicine and Industrial Research School, Rajayee Shahr, Tehran, Iran

Objective & aims: Toxoplasma gondii is a ubiquitous protozoan parasite which infects a broad range of hosts, including humans. Transmission of recently-acquired T. gondii infection from a pregnant woman to the fetus may cause mental retardation, blindness, epilepsy, and death. T. gondii can also cause severe encephalitis via acute infection or reactivation of latent infection among immunosuppressed individuals. The aim of this research was to evaluate serological implementation of Toxoplasma gondii rhoptry protein 1 (ROP1) antigen.

Materials and method: Explainable recombinant ROP1 antigen as chimeric proteins includes six histidyl rests at the N and C terminals were achieved using an Escherichia coli manifestation system. Dis disease by one-step metal attraction chromatography permitted getting well of milligram quantity of pure recombinant protein per liter of culture. The condition of being useful of this antigen for diagnosis of human diseases was tested on 110 serum samples achieved during ordinary diagnostic tests. A panel of 47 serum samples from patients with serious toxoplasmosis was compared to a panel of 90 serum samples from individuals with past disease.

Results and discussion: The results shown that ROP1 recombinant antigen discover antibodies more often in samples from individuals with serious diseases (94.6%) than in samples from individuals with lingering diseases (15.5%). These results suggest that immunoglobulin G antibodies against ROP1 antigen are produced during the serious stage of toxoplasmosis but are unusual in the lingering phase of the disease. Hence, this recombinant protein can be used as limited molecular markers to distinguish between serious and lingering diseases.
Poster Presentation: Breast Cancer
THE VALIDITY OF MRI IN EVALUATION OF TUMOR RESPONSE TO NEOADJUVANT CHEMOTHERAPY IN LOCALLY ADVANCED BREAST CANCER
F.H. Shandiz\textsuperscript{1,2}, M. Abedi\textsuperscript{3}, D. Farrokh\textsuperscript{3}, A. Joulaee\textsuperscript{4}, R. Anbiaee\textsuperscript{4}, B. Zandi\textsuperscript{3}, H.R. Sayah\textsuperscript{3}
\textsuperscript{1}Cancer Research Center, \textsuperscript{2}Radiation Oncology Department, \textsuperscript{3}Mashhad University of Medical Sciences, Mashhad, \textsuperscript{4}Shahid Beheshti University of Medical Sciences, Tehran, Iran

Background: The purpose of this study has to evaluate the diagnostic accuracy of breast MRI in assessment of residual neoplastic tissue after Neoadjuvant Chemotherapy (NAC) in patients with Locally Advanced Breast Cancer (LABC).

Methods: Twenty patients with LABC have undergone contrast-enhanced MRI before and after the NAC. Considering histology as the gold standard, the tumor sizes in MRI and PE have compared with the histology results.

Results: We have found an accuracy of 85% for MRI with a sensitivity of 100%, a specificity of 50%, a PPV of 83.3%, and an NPV of 100%. In addition, the accuracy for PE was 70% with a sensitivity of 71.4%, a specificity of 66.6%, a PPV of 83.3%, and an NPV of 50%. In this study, the calculated Pearson’s correlation coefficient for MRI and histology was 0.817 (p< 0.0001) versus 0.26 (p=0.26) for correlation between PE and histology.

Conclusion: MRI has higher sensitivity but less specificity than physical exam for detection of residual tumor after NAC in locally advanced breast carcinoma. Also, the tumor size that has measured by MRI had highly correlation with the histology.
Poster Presentation: Breast Cancer
DEVELOPING A POWERFUL STRATEGY BASED ON REAL TIME PCR FOR ASSESSMENT OF HER-2/NEU GENE AMPLIFICATION IN BREAST CANCER PATIENTS

Z. Hojati, E. Orangi
Biology, University of Isfahan, Isfahan, Iran

The amplification status of proto oncogene HER-2/neu is one of the major molecular prognosis markers in breast cancer and recent adjuvant treatment with Trastuzumab has increased a request for the evaluation of HER-2/neu status in breast cancer. The aim of our study was the evaluation of HER-2/neu amplification status in malignant breast cancer by Real Time PCR. 86 malignant breast cancer tissue specimens were analysed here. Sections from paraffin-embedded or fresh tissue samples were homogenized by squash and then DNA extraction were performed on cell suspension. A standard curve was initially plotted using BioEasy SYBR Green I for using 2-ΔΔct method. A 98bp fragment of HER-2/neu gene was co-amplified in the same reaction tube with a 150bp fragment of INFγ gene for differential PCR. 28 out of 86 (32.5%) samples tested by Real Time PCR have HER-2/neu gene amplification. There was concordance between the results of Real Time PCR and differential PCR in 61 of 83 specimens (73.5%) tested by both method. Furthermore, in comparison of IHC results with these two methods, 70% concordance between IHC and differential PCR, 63% concordance between IHC and Real Time PCR and 55.5% concordance between three methods were observed.
**Poster Presentation: Breast Cancer**  
**COX-2 AND ITS ASSOCIATION WITH PROGNOSTIC FACTORS AND RESPONSE TO NEOADJUVANT CHEMOTHERAPY IN BREAST CANCER**

R.L. Rozenowicz¹, R.E. Santos², F.O. Rodrigues¹, J.M. Aldighi¹, M.A.G. Silva³  
¹Gynecology, ²Gyneology, ³Pathology, Santa Casa São Paulo, Sao Paulo, Brazil

**Introduction:** In 2012 there were estimated 49,470 new cases of breast cancer with 9,170 deaths in Brazil. Despite advances in screening and treatment of this disease, the mortality rate increased 76% over the 1970-2000 period, from 5.7 per 100,000 women in 1979 to 10.15 per 100,000 women in 2002.

**Objective:** This study aims to evaluate the immunohistochemical expression of Cox-2 and its association with tumor size, lymph node clinical status, hormone receptors, expression of HER2/neu and the pathological and clinical response to primary chemotherapy in women with ductal carcinoma of the breast stages II or III.

**Methods:** We conducted a retrospective study with 41 women with histopathological diagnosis of ductal breast carcinoma. They underwent primary chemotherapy with FEC regimen. The evaluation of clinical response to treatment was performed during physical examination by measuring the major tumor axis. Measurements were taken at admission and after primary chemotherapy cycles. After three chemotherapy sessions at intervals of 21 days the surgical procedure was carried out. We adopted the criteria of RECIST. We evaluated the local pathological response, which was considered complete when there was absence of invasive neoplasia and of the in situ component.

**Results:** The clinical response based on RECIST criteria showed: 25 (60.98%) responders and 16 (39.02%) non-responders. Histopathological evaluation showed complete response in five patients (12.19%).

**Conclusion:** There was an association of Cox-2 to the factors associated with poor prognosis in breast cancer, such as positive lymph node status, negative hormone receptors and HER2 expression.
Poster Presentation: Breast Cancer
MMP-9 PROMOTER POLYMORPHISM AND SERUM MMP-9 LEVEL ASSOCIATED WITH PROGRESSION OF BREAST CANCER IN IRANIAN POPULATION

M. Motovali-Bashi

Biology, Faculty of Science, University of Isfahan, Isfahan, Iran

A single nucleotide C/T polymorphism in MMP-9 promoter and blood matrix metalloproteinase-9 level are promising new diagnostic markers. The aim of the present case-control study is to investigate the correlation between the serum MMP-9 level and C/T polymorphism in the promoter gene with occurrence and progression of breast cancer. The serum MMP-9 level was investigated by gelatin zymography in 100 breast cancer patients and 120 health subjects. The average value of MMP-9 activity was significantly higher in breast cancer patients than in control (P< 0.002), this value was in correlate with tumor stage (P=0.005) and tumor size (P=0.012). Polymorphism in the promoter region (T-1562C) of 180 breast cancer patients and 100 healthy age-matched controls were genotyped by RFLP-PCR assay and sequencing. A correlation was observed between T allele and breast cancer occurrence (OR=3.27, P=0.004). And also high significant association was found between T allele and progression and invasion of breast cancer (OR=5.85, P=0.000). Our results suggest that T/C polymorphism in the promoter and serum MMP-9 level could be potential diagnostic markers for predicting breast cancer occurrence and progression in Iranian population.
Poster Presentation: Breast Cancer
GYNAECOLOGICAL CANCER AS A SECOND MALIGNANCY IN PATIENTS WITH BREAST CANCER

B.S. Yadav
Radiation Oncology, Post Graduate Institute of Medical Education & Research, Chandigarh, India

Purpose: To determine the incidence and risk factors for gynaecological cancer as second malignancy after treatment for primary breast cancer.

Methods and materials: Between January 1985 and December 2007, 2756 breast cancer patients were analyzed. Detailed analysis was carried out for clinical and pathologic characteristics. The Cox proportional hazard regression model was used to estimate the relative risk of gynaecologic malignancies as a second primary in patients with breast cancer.

Results: At a median follow-up of 14 years, 25 cases of gynaecological cancer were noted in 25 patients. The overall incidence of was 0.9% at a median time of 7 years. The common gynaecologic second malignancy was in the ovary and endometrium (9 patients each) followed by cervix (7 patients). In the subset of patients less than 45 years of age at the time of treatment, the gynaecologic cancer rate was 0.8% as compared with 0.9% in patients more than 45 years of age. Women with a family history of breast cancer had a higher incidence of endometrial (12%) and ovarian (16%) malignancy compared with women without such a history (0.1%, p = 0.003). Statistically significant higher incidence of endometrial cancer was seen in patients with hormonal therapy (0.4%) as compared with patients without hormonal therapy (0.1%, p = 0.001). Chemotherapy and radiotherapy did not affect the risk of second malignancy.

Conclusion: The common gynaecological cancers as a second primary in this study were endometrium and ovary. Family history of breast cancer was a high risk factor for gynaecologic malignancy.
Poster Presentation: Breast Cancer

ENCYSTED PAPILLARY BREAST CANCER: CLINICAL UPDATE

S. Al-Reefy

London Breast Institute, London, UK

Introduction: Intracystic papillary cancer is a rare entity of breast cancer. The prediction of the biological behaviour of this rare form of breast cancer and the clinical outcome showed its overall favourable prognosis; however, its consideration as a form of ductal carcinoma in situ with non-invasive nature is to be reconsidered as it has been shown to present histologically with invasion of basement membrane and even metastasis. The objective of this review is to shed light on this diagnostically challenging form of breast cancer. The final goal is to optimize the clinical management including the role of sentinel lymph node biopsy, adjuvant radiotherapy, mammary ductoscopy and hormonal treatment.

Methods: literature review, facilitated by Medline, PubMed, and the Cochrane database.

Results: Intracystic papillary breast cancer (IPC) is best managed in the context of multidisciplinary team. Surgical excision of the lump with margins in excess of 2 mm is satisfactory. SLNB is recommended as there’s possibility of presence of invasive cancer in the final histology. RT following IPC alone is of uncertain significance as this form of cancer is usually low grade and rarely recurs. If it is associated with DCIS or invasive cancer in young women, radiotherapy is prudent to reduce local recurrence. Large tumours, centrally located require skin sparing mastectomy with the opportunity for immediate reconstruction. Adjuvant endocrine therapy may be suggested as almost certainly these tumours are hormonal positive.

Conclusion: Understanding the low-grade nature of this form of breast cancer allows treatment options to be less radical and safely omitted.
Poster Presentation: Breast Cancer
A MULTICENTER MATCHED CASE CONTROL STUDY OF BREAST CANCER RISK FACTORS AMONG WOMEN IN KARACHI, PAKISTAN

U. Shamsi1, S. Khan2, S. Soomro3, S. Usman4, I. Azam5

1Epidemiology & Biostatistics, Department of Community Health Sciences, 2Department of Surgery, Aga Khan University Hospital, 3Department of Surgery, Jinnah Postgraduate Medical Centre, Karachi, 4Department of Medicine, P.A.F Hospital, Islamabad, 5Department of Community Health Sciences, Aga Khan University Hospital, Karachi, Pakistan

Background: Breast cancer (BC), the most common female cancer in Pakistan, is associated with very high mortality. However, role of many risk factors for BC among Pakistani women is still controversial. To assess the potential risk factors for BC, a matched case-control study was conducted in two tertiary care hospitals of Karachi, Pakistan.

Patients and Methods: The study population included 297 pathologically confirmed incident cases of BC patients diagnosed between January 2009 and December 2010. 586 controls without history of BC were matched on the hospital, and +5 years of age.

Results: Family history of BC (MOR=1.72; 95% CI: 1.10, 2.80 for first degree vs. none), single marital status (MOR=1.55; 95% CI: 1.10, 2.39 for single women vs. married women), older age at menopause (MOR=3.92; 95% CI: 2.52, 6.18 for menopausal women aged below 45 years, MOR=6.42; 95% CI: 3.47, 11.98 for menopausal women above 45 years of age compared with premenopausal women) conferred an increased risk of BC for women. Increasing parity decreased the risk of BC (MOR =0.90; 95% CI: 0.85, 0.97 for each live birth). Intake of Vitamin D supplements (MOR=0.30; 95% CI: 0.12, 0.81 for < 3 years) or (MOR = 0.27; 95% CI: 0.13, 0.56 for > 3 years) was protective compared to non-users of Vitamin D.

Conclusion: This study confirms only few of the recognized risk factors in Pakistani women. The protective effect of Vitamin D is important from public health perspective and needs to be further explored through a randomized controlled trial.
Poster Presentation: Breast Cancer
PRACTICE OF BREAST SELF-EXAMINATION AMONG WOMEN IN MALAYSIA

R. Al-Naggar
UiTM, Selangor, Malaysia

Objectives: The objective of this study was to examine the practice and associated factors of breast selfexamination (BSE) among Malaysian women.

Methods: For this cross-sectional study 250 women were selected by a simple random sampling technique. The questionnaire was consisted of three parts: socio-demographic characteristics, knowledge about BSE, and practice of BSE. Obtained data was analyzed using SPSS version 13. T-test and ANOVA test were used to explore the relation between socio-demographic characteristics and the practice of BSE.

Results: About 32% of the participants reported that they have had family history of cancer and about 20% of the participants reported that they have had family history of breast cancer. The majority of the participants (88.8%) have heard about breast cancer and 78.4% of the participants have heard about BSE. Race, marital status, residency, regular exercise, awareness about breast cancer, belief that breast cancer can be detected early, belief that early detection improves the chance of survival, family history of cancer, family history of breast cancer, awareness about BSE, and belief that BSE is necessary, significantly influenced the practice of BSE among women. Practice of BSE on monthly basis was found to be 47.2% among the study participants.

Conclusion: The socio-demographic characteristics significantly influence the practice of BSE among women in Malaysia. The findings of this study might not only influence the planning of specific screening interventions and strategies in Malaysia but might also be important for the relevant international communities, interested in the peculiarities of BSE incidence in different countries.
Poster Presentation: Breast Cancer
BREAST SELF-EXAMINATION: KNOWLEDGE, ATTITUDE, AND PRACTICE AMONG WOMEN IN KHORAMABAD CITY, IRAN

F. Yari, S. Vahabi, M. Ghafarzadeh, A. Khadish
Lorestan University of Medical Sciences, Khoramabad, Iran

Aim: The aim was to evaluated the knowledge, attitude, and practice (KAP) related to breast self-examination (BSE) in women in Khoramabad City, Iran.

MATERIALS and Methods: In this study a cross-sectional study was conducted among women in Khoramabad City, Iran. In this study data were analyzed using SPSS software and data analyzed by Chi-square test and Pearson’s correlation done and P-value of < 0.05 was considered statistically significant.

Results: In this study result showed that knowledge score was 16 ± 2.14 and attitude was 23.22 ± 1.07 and practice was 13.44 ± 3.02 that correlation showed a significant correlation between knowledge and attitude with (P< 0.05).

Conclusion: The study showed need for educational programs to create awareness regarding regular breast cancer screening behavior.
Poster Presentation: Breast Cancer

BREAST CANCER IN BULGARIA: SURVIVAL OF THE WOMEN, SURGICALLY TREATED DURING THE PERIOD 2005-2009 IN HOSPITALS WITH DIFFERENT VOLUME

I. Gavrilov, N. Dimitrova

National Oncology Hospital, Sofia, Bulgaria

Background: Successful treatment of breast cancer depends on timely diagnosis and proper individual approach to each patient, depending on the experience of oncologists. In Bulgaria there are about 3,500 women surgically treated, annually and 35% of them - out of the specialized cancer centers and university hospitals.

Objective: To analyze survival in surgically treated women with breast cancer, according to the hospital volume, type of hospital and the place in which it is located.

Methods: There were 15,872 women with breast cancer diagnosed in 2005 to 2009, and surgically treated. The medical establishments were divided into groups according to the annual volume, type (National Oncology Hospital, Regional Oncology Centers, University hospitals, General hospitals and other hospitals) and size of the population. Life table method and Cox-regression were used for the analysis of survival and hazard ratios.

Results: Five-year survival - 82%, comparable to the European average, occurred in large and specialized hospitals, in big cities and in the hospitals with the highest volume. In these hospitals patients were at a younger age (15-44 - 88.2%), at an earlier stage (75.2%), lower grade (G1 - 50%) and a lower risk of death by 42% -59% (after adjustment by age, stage and grade) than in lower volume hospitals (< 100 cases) and in the smaller cities.

Conclusions: The main factor for better survival remains the hospital volume and quality of operations. This is probably in direct compliance with a correlation of oncological standards and experience of the medical teams.
Poster Presentation: Breast Cancer
MULTIPLE PRIMARY TUMORS IN BULGARIAN WOMEN FOLLOWING BREAST CANCER, 1993 - 2010

I. Gavrilov¹, N. Dimitrova¹, G. Chakalova²
¹National Oncology Hospital, ²Gynecological Department, National Oncology Hospital, Sofia, Bulgaria

In recent decades we have seen a change in the biology of breast cancer - most commonly affects younger age, there is a more aggressive development and more frequently combined with metachronous tumors. The group of multiple tumors is about 4% of all breast cancer cases in Bulgaria. They provoke interest because of their poor prognosis and therapeutic approach challenges.

In 1993 - 2010, there were 58698 breast cancer cases in the Bulgarian National Cancer Registry, of whom 2282 are multiple tumors. They were analyzed by age, stage, time to second tumor and survival with Life Table method.

More than half - 57.6% of patients with a second cancer after breast cancer are between 50 and 69 years. The second tumor was diagnosed at early stage in 51.7% of the patients. Mean time to diagnosis of the second tumor was 5.4 years, the most frequent sites are endometrium, skin, other breast, ovary and colon. Five-year survival was 78% and reduced to 46% after the diagnosis of the second tumor. The time to diagnosis of the second tumor has shrunk dramatically from an average of 7.6 years (1993-1998) to 1.8 years (2005-2010).

Multiple tumors are biologically aggressive and showed unfavorable trends - shorter time to diagnosis of the second tumor, and significantly lower survival thereafter, although they are more common in the age over 50 years and there are good diagnostic capabilities, allowing diagnosis at early stages. This requires more aggressive diagnostic and therapeutic approach.
**Poster Presentation: Breast Cancer**

**DESCRIPTIVE EPIDEMIOLOGY OF RARE BREAST CANCERS IN BULGARIAN FEMALES, DIAGNOSED IN 2005 - 2009**

I. Gavrilov, N. Dimitrova, K. Timcheva

*National Oncology Hospital, Sofia, Bulgaria*

Histological types of rare breast cancers (with incidence < 6/100000 persons) are: Paget’s disease, adenocarcinoma, metaplastic and salivary gland type carcinoma. Because of their low frequency, so far they are not systematically described concerning diagnosis, treatment and survival.

We aimed to describe the rare types of breast cancer by age, stage, grade, hormonal receptors and HER2, and to analyze survival.

We used data from the Bulgarian National Cancer Registry for 2005 - 2009. All cases were divided into rare and common, morphological groups were compared on their individual characteristics. Life Table method was used for the survival analysis.

There were 18491 cases of breast cancer in women, of whom 892 (4.8%) were rare. The rare tumors have a better 5-year survival, they were more common in the age groups 15-29 and over 60 years as opposed to frequent, mostly diagnosed in age 30-60. Rare cancers are diagnosed more often in earlier stages - 33.3% (first stage) compared to 25.6% in first stage for common cancers. They are located mainly in the central and medial quadrants, which generally have a poor prognosis. Rare tumors are more often estrogen and progesterone positive, with lower grade (G1 and G2) and often HER2 negative compared to common breast tumors. This, in turn, correlates with better prognosis and survival in these patients.

Clinicians and pathologists should have an individual approach in diagnosing and treatment of each case with rare breast tumors which have manifested clinical expression, better response to comprehensive treatment, hence a better prognosis.
Poster Presentation: Breast Cancer

ANALYSIS OF MULTIPLE TUMOURS IN BULGARIAN WOMEN, DIAGNOSED IN 1993 - 2010, WITH BREAST CANCER AS A SECOND ONE

I. Gavrilov, N. Dimitrova, I. Gavrilova

National Oncology Hospital, Sofia, Bulgaria

The interest in analysing multiple tumors, when the breast cancer is the second one, is because this phenomenon provokes oncologists about integrated diagnosis and treatment.

We aimed to analyze the clinical and biological characteristics of patients with two tumors, the second of which is breast cancer.

Data from the Bulgarian National Cancer Registry for diagnoses in 1993 - 2010, with multiple tumors and breast cancer as a second one, were analyzed.

During this period, 246830 female cancer patients were registered, of which 7978 (3.2%) had two tumors. Breast cancer as a second one was diagnosed in 1593 (20%) of them. The most frequent first tumors are of skin (20.6%), breast (19.8%) and uterine body (16.1%). Mean time to diagnosis of the second tumor was 4.9 years (3.6 for colon to 5.7 for corpus uteri and other breast). The first cancer is diagnosed at age 50-69 for 55.8% of patients. They were mostly in first and second stages (62.9%), unlike the second tumors (46.1%). The mean time to diagnosis of the second tumor has shrunk dramatically from 10.2 years in 1993 to 1.6 years in 2007. Five-year survival after the occurrence of a second tumor decreased from 81% to 56%.

Multiple tumors are most common among the so-called hormone-dependent cancers, in which breast cancer has a relatively large share, as well as first and as second one. Mean time to diagnosis of the second tumor is more than 5 times shorter in the recent period, and survival is two times lower.
Poster Presentation: Breast Cancer

AN AUTOPSY CASE OF INVASIVE MICROPAPILLARY CARCINOMA OF THE RIGHT BREAST WHICH TREATED AS CARCINOMA OF UNKNOWN PRIMARY

K. Sugita, S. Takada, T. Yamamoto

Obstetrics and Gynecology, Nihon University, Tokyo, Japan

We encountered a patient with a cancer of unknown primary whose initial manifestation was neck lymph node enlargement and in which an autopsy was performed.

The patient was a 45-year-old gravida 4 para 2 who was examined in the otorhinolaryngology department for a chief complaint of a large lymph node in her neck and was diagnosed with class V cytology. However, she was referred to our department because PET showed abnormal accumulation in ovaries and peritoneum. MRI revealed ovarian enlargement to 4 cm and uterine myomas. Because no findings suggesting a primary site were detected by the otorhinolaryngology, dermatology, respiratory medicine, breast surgery, or gastroenterology department, radiotherapy to the neck and Pacritaxel + Carboplatin (TC) therapy were performed as first-line chemotherapy in our department. A tumor that was detected in the right breast a year later was surgically removed, but the histopathologic diagnosis was metastatic mucoepidermoid carcinoma, and a primary breast tumor was ruled out. After performing TC therapy as second-line chemotherapy, we performed ATH + BSO. No ascites or peritoneal dissemination was observed, and the histopathological diagnosis was fibroma and multiple leiomyomas, but 3rd-line chemotherapy in the form of Irinotecan + Cisplatin therapy and 4th-line therapy in the form of Nogitecan were performed subsequently. However, the metastatic foci increased in size and number, and the patient died 39 months after the initial examination.

Based on the autopsy findings an invasive micropapillary carcinoma of the right breast was strongly suspected of being the primary tumor.
Poster Presentation: Cervical Cancer  
DETERMINANTS OF ACCEPTABILITY AND FEASIBILITY FOR IMPLEMENTING HPV VACCINATION PROGRAM AMONG URBAN LOW SOCIO-ECONOMIC POPULATION IN INDIA


Preventive Oncology, Tata Memorial Hospital, Mumbai, India

Background: Cervix cancer continues to be the second most common cancer among women globally. India alone contributes to more than one fourth of the global cervical cancer burden.

Aims: The overall program goal is to determine the acceptability and feasibility of introducing population based HPV vaccination program and understand the key individual and community factors that would determine the potential acceptability of the vaccine.

Methods: This is community based interventional trial among 1000 low socioeconomic eligible women (bearing daughters in the age group of 10-18 yrs) residing in two communities in Mumbai, India, one previously sensitized and the other previously not sensitized.

Results: Among 1000 eligible women interviewed, only 1.3% had heard about HPV infection and HPV vaccine. Though their awareness was low, willingness to vaccinate daughters after being informed was good (97%), with 86% women willing to spend INR 1000/- for the entire HPV vaccination schedule. The main facilitators for vaccination were recommendation by doctors, friends/relatives and inclusion of the vaccine as part of routine immunization schedule, and the main barriers for vaccination were husband's disapproval and inadequate knowledge about HPV vaccine. Prior sensitization and knowledge about cervix cancer were significant predictors of willingness to vaccinate daughters with HPV vaccine.

Conclusions: HPV vaccine programs in India should be directed towards garnering support of parents and family physicians, should address the major barriers, emphasizing on high vaccine effectiveness, the high prevalence of HPV infection and should incorporate a well planned health education in order to achieve optimal acceptance.
**Poster Presentation: Cervical Cancer**

GENOMIC AMPLIFICATION OF THE HUMAN TELOMERASE GENE (HTERC) ASSOCIATED WITH HUMAN PAPILLOMAVIRUS IS RELATED TO CERVICAL CANCER

H. Liu¹, S. Liu², H. Wang¹

¹Gynecology and Obstetrics, West China Second Hospital, Sichuan University, ²West China Second University Hospital, Sichuan University, Chengdu, China

**Background:** Amplification of human telomerase gene (hTERC) and over expression of telomerase were found to be associated with cervical tumorigenesis. This study was performed to analyze genomic amplification of hTERC gene, telomerase activity in association with HPV infection in different stages of cervical intraepithelial neoplasia (CIN) and cervical cancer. We were studying the role of hTERC in the progression of uterine cervical dysplasia to invasive cancer.

**Methods:** Exfoliated cervical cells were collected from 114 patients with non neoplastic lesion (NNL, n=27), cervical intraepithelial neoplasia (CIN1, n=26, CIN2, n=16, CIN3, n=24) and cervical carcinoma (CA, n=21), and analyzed for amplification of hTERC with two-color fluorescence in situ hybridization (FISH) probe and HPV-DNA test. From these patients, 53 were taken biopsy to analyze telomerase activity by telomeric repeat amplification protocol (TRAP) and expression of human telomerase reverse transcriptase (hTERT), with immunohistochemistry (IHC).

**Results:** Amplification of hTERC was significantly associated with the histologic diagnoses (p< 0.05). The positive correlation was found between the level of hTERC amplification and histologic grading of dysplasia (CIN2/3 from CIN1 or normal, P=0.03). A profound increase in the accumulation of HPV and hTERC positive cases was observed in the CIN3 subgroup compared with the CIN2 group, 25% versus 62.96%, respectively (p=0.007).

**Conclusions:** hTERC amplification can be detected with FISH technique on exfoliated cervical cells. Amplification of hTERC and HPV infection are associated with more progressive CIN3 and CA. The testing of hTERC amplification might be a supplementary to cytology screening and HPV test, especially high-risk patients.
Poster Presentation: Cervical Cancer
CERVICAL CANCER CROSS PROTECTION; ACCEPTABILITY OF HPV VACCINES AMONG MALE UNIVERSITY STUDENTS IN UNITED ARAB EMIRATES

O. Ortashi

Obstetrics ang Gynaecology, College of Medicine - UAE University, Al Ain, United Arab Emirates

Objective: To assess the knowledge and acceptability of HPV vaccine among male university students in the Abu Dhabi state of UAE.

Results: Knowledge of HPV was generally low (31.5%) with a modest amount of students accepting to take vaccine to protect their current or future partners against HPV infection and HPV related diseases (46.1%) whereas around 30% students were unsure of their decision to accept the vaccine. Safety (67.5%), protection of partner (64.6%) and doctors recommendations (63.9%) were rated as the major factors that would enhance their uptake of HPV vaccine whereas fear of side effects (85.4%), no clear benefits (37.9%) and objections from religious authority (25.2%) were rated as the top factors that would stop them from taking the vaccine.

Marital status and sexual activity were significantly associated with the knowledge of HPV whereas these had no association with the acceptability of vaccine.

Methods: Between June - August 2012, 356 male university students from United Arab Emirates were requested to fill out a self-administered 12 item questionnaire.

Conclusion: the overall acceptability and knowledge of HPV and its vaccine is generally low in male university students in UAE identifying a knowledge gap as an area for intervention in future.
Poster Presentation: Cervical Cancer

OUTCOME OF HEALTH COMMUNICATION TECHNOLOGY IN DISSEMINATION OF CONTRACEPTIVE USE AMONG TEENS IN AFRICA

K. Odor¹, N. Iwuji¹, U. Eziefula²

¹Health Promotion and Education, Faculty of Public Health, College of Medicine, University of Ibadan, Ibadan, ²Research Unit, Sure Health Organization, Owerri, Nigeria

Health information dissemination is an activity that ensures behavior change among most risk population relating to risk practices that promote ill health. Facilities and personnel are employed to provide health information for behavior change, which aims at preparing teenagers to contribute socio-economically to the society. However, evidence-based studies in Nigeria involving use of information and communication technology (ICT) have been limited to dissemination of arts and dramas with limited attention paid to health information. This study therefore, determined the effect of communication technology in dissemination of contraceptive use among Nigeria teenagers.

A total of 202 participants in four youth-friendly centres in Owerri, Imo State of Nigeria were used. Six null hypotheses were formulated and tested. Four instruments namely: DVD machine, Projector, Display Screen and DVD (MP3disc) were used for the study at each of the four centres.

The results revealed there was significant behavior change on teenagers’ attitude and behaviour. It also showed there was significant behavior on teenagers’ knowledge in contraceptive use. (P< .05). There was significant result on attitude of teenagers to contraceptive use and education (P< .05). However, there was no significant gender difference on teenagers knowledge and development contraceptive use. There was also no significant gender difference on teenagers’ attitude to contraceptive use and education. Government at all levels should support the establishment of youth-friendly centres equipped with communication technology facilities, in order to improve teenagers' behaviours on contraceptive use especially in the face of risky practices. They should be encouraged to adopt this strategy.
Poster Presentation: Cervical Cancer
PATIENT INFORMATION LEAFLETS AND COLPOSCOPY

M. Al Kalbani

Obstetrics and Gynaecology, Sultan Qaboos University Hospital, Muscat, Oman

Objectives: To determine when patients receive the leaflet “Explaining the colposcopy” and to ascertain patients’ understanding of, and satisfaction with, the leaflets.

Background: Cervical screening is a method of preventing cervical cancer by detecting and treating early preinvasive abnormalities. Many women suffer significant negative psychological effects from receiving an abnormal smear result and the need for subsequent investigation in the form of colposcopy, and the requirement of treatment. It has been shown that counselling and information leaflets help to reduce the anxiety in women undergoing follow-up of abnormal smears and colposcopy.

Design and Methods: A questionnaire was given to all new patients attending the colposcopy clinic with an abnormal smear, over a period from October 2011 to October 2012 with regard to the colposcopy leaflet.

Results: 66 patients were included in the survey. 85% of patients received the leaflet prior to the colposcopy visit. All patients thought that the leaflet was easy to read and understand, however only 91% of patients stated that they fully understood why they were referred to colposcopy clinic.

Conclusion: Patient’s anxiety and the fear of the unknown can be reduced by ensuring that they receive appropriate information leaflet which explain the abnormal smears and colposcopy. All patient’s information leaflets should be easy to read and understand as they are helpful in reducing the anxiety and the psychological impact on these patients.
FUNCTIONAL ANALYSIS OF SEQUENCE VARIATIONS WITHIN E6 AND E2 GENES OF HUMAN PAPILLOMAVIRUS TYPE 16

D. Hang, H. Cai, Y. Ke

Peking University School of Oncology, Beijing, China

Background: Sequence variations within the genome of human papillomavirus (HPV) type 16 have been reported in different ethnic populations, with some evidence suggesting that non-European variants may confer higher oncogenic potential. We have previously identified HPV16 European (EUR) and Asian (As) variants with high degree divergence from Anyang, China. An evolutionary analysis of HPV16 As divergence has revealed that several important amino acid positions within E6 and E2 may drive adaptive selection in the HPV 16 population. This study aimed to evaluate the effect of those amino acid substitutions on E6 and E2 function regarding p53 degradation and transcription activity of long control region (LCR).

Methods: H1299 and U2OS cell lines were utilized to compare the ability of different E6-expressing vectors to degrade p53, whose levels were determined by western blot. In dual-luciferase assay evaluating transcriptional regulation of E2, Hela and U2OS cell lines were cotransfected with pGL3-LCR-luc reporter and E2-expressing vectors.

Results: Similar ability to degrade p53 was observed among HPV16 EUR E6, As E6, and EUR E6 with L83V or E113D. EUR E6 with R10G can more efficiently reduce the half-life of p53. As E2 was found to repress LCR activity about two-fold stronger than the prototype. Site-directed mutagenesis indicated that E232K within the hinge region was responsible for its enhanced repression ability.

Conclusion: EUR E6 with R10G can elicit earlier p53 degradation, thereby possibly enhancing its carcinogenic potential. E2-E232K of As variant can more significantly repress LCR activity, highlighting the functional significance of the hinge region.
Poster Presentation: Cervical Cancer
CERVICAL CANCER INCIDENCE IN LAST 30 YEARS: PROBLEMS WITH EARLY DETECTION AND HEALTH POLITIC IN BULGARIA

G.B. Chakalova
Gynecological Oncology, National Cancer Center, Sofia, Bulgaria

For the last 30 years (1982-2011), 4142 patients with invasive cervical cancer and 1085 patients with carcinoma in situ were treated in our department. The period was separated in 3 decades. In the first period from 1048 patients with invasive cancer, Stage I was in 44%, Stage II-32%, Stage III-23%, and Stage IV -1%. Carcinoma in situ was in 227 cases (21%) of all cases of cervical diseases. During the second period 1837 patients with invasive cancer, Stage I was in 37%, Stage II-35%, Stage III-27% and Stage IV- 1%. Carcinoma in situ was in 425 cases (19%) of all cases of cervical diseases. In the last period 1257 patients with invasive cancer, Stage I was in 42%, Stage II-30%, Stage III-27% and Stage IV- 1%. Carcinoma in situ was in 383 cases (23%) of all cases of cervical diseases. Treatment was in correlation with the stage of the disease. In cases of carcinoma in situ and invasive cervical carcinoma a significant rejuvenation was detected and peak was found in 30-34 and 45-49 years of age respectively. Our results show that in last 20 years changes in health politic and absence of a national screening program, were worst for early detection of cervical cancer. In the end of the period a detection of carcinoma in situ was better, but a high level of advanced cervical cancer is persisted. An urgent introduction of cervical screening in Bulgaria and improvement of performance of general practitioner and gynecologists outside the hospital is recommended.
Poster Presentation: Cervical Cancer  
OVEREXPRESSION OF SEPTIN2 AFFECTS CELL PROLIFERATION AND MIGRATION IN CERVICAL CARCINOMA CELLS  
C.-J. Liao, T.-I. Wu, K.-H. Lin  
Chang-Gung University, Taoyuan, Taiwan R.O.C.

Introduction: Cervical cancer, a potentially preventable disease, remains the second most common malignancy in women worldwide. The development of cervical carcinoma is a multi-step carcinogenesis.

Objective & Design: To identify the new molecular markers for diagnosis and prognostic, as well as the therapeutic target, we identify differential expressed proteins in non-tumor and tumor tissues by Two-Dimensional Electrophoresis.

Methods: The differentially expressed protein was confirmed by immune-histochemistry staining. Cellular functions after alteration the Septin2 (SEPT2) expression were assayed by flow cytometry, cell migration, or western blot.

Result: SEPT2 is one of the differentially expressed proteins. SEPT2 is a highly conserved protein in eukaryotes which has the potential to bind guanine nucleotide. No evidence demonstrated that the possible role of SEPT2 in carcinogenesis. Our data shows that SEPT2 is overexpressed in cervical cancer by immunohistochemistry staining, knockdown of SEPT2 in HeLa cell causes morphology changes. Flow cytometry analysis shows that knockdown of SEPT2 in HeLa cell causes cell cycle arrest in G2/M phase. SEPT2 stable knockdown HeLa cell line has slower proliferation rate but higher migration and invasion ability. We also examined SEPT2 expression in other cancers and we found that SEPT2 is also over-expressed in hepatoma, in addition to brain tumor and renal cell carcinoma which has been reported previously.

Conclusion: SEPT2 was highly expressed in cervical carcinoma and associated tumor recurrence.
Poster Presentation: Cervical Cancer
EVALUATION OF LYMPH NODES REMOVED DURING RADICAL HYSTERECTOMY AND BILATERAL PELVIC LYMPH NODES DISSECTION (BLPND) FOR CARCINOMA CERVIX
S. Khatun
Obsterics and Gynecology, Bangabandhu Sheikh Mujib Medical University, Dhaka, Bangladesh

Introduction: Study of histopathological report of radical hysterectomy and BLPND can contribute a lot to the decision making for adjuvant therapy of operable cases of Carcinoma cervix. Some important informations were gathered by statistical analysis of 100 histopathological reports of radical hysterectomy and BLPND.

Objectives:
To determine the no of lymphnodes removed.
To determine the lymph node involvement.
To evaluvate the parametrial involvement.

Method: Histopathological reports of radical Hysterectomy and BLPND done at Bongabandhu Sheikh Mujib Medical University were statistically analyzed.

Results: Number of cases studied were 100. All the cases were clinically staged by examination under anesthesia, cystoscopy and intravenous pyelography. Rectal involvement were excluded by per rectal examination. Among the cases 12% were 20-30 years, 10% were 71-80 years and 60% were 31-50 years. 85% were invasive squamous cell carcinoma, 9% adenocarcinoma, 2% adenocarcinoma type. Each of the CIS, papillary adenocarcinoma, adenoid basal cell CA and Endometroid adenocarcinoma were 1%.

Grading of the tumours were 45%, 43%, 8% and 3% of grade I, II, III and no grad respectively. Other parameters like number and size of Lymph nodes removed, relationship of number and size of lymph nodes with parametrial invasion, involvement of vaginal cuff and lower uterine segment will be presented at the time of presentation.

Conclusion: Though clinical staging is the norm of management of cervical cancer, the role of histopathological staging is the basis for the adjuvant radiotherapy. In this regard tremendous contribution from the histopathologists cannot be disregarded.
Poster Presentation: Cervical Cancer

INCIDENCE UNSATISFACTORY RATE CERVICAL CYTOLOGY CLASSIFICATION IN LIQUID-BASED VERSUS CONVENTIONAL CERVICAL CYTOLOGY

F. Vahidroodsari¹, F. Poursadrollah², S. Ayati¹, Z. Yousefi¹, F. Poursadrollah³

¹Ghaem Hospital / Mashhad University of Medical Sciences, ²Imam Reza Hospital / Mashhad University of Medical Sciences, ³Iran University of Medical Sciences, Mashhad, Iran

Background and aim: The papanicolaou (pap) smear has been used to screen women for cervical cancer since 1940. Unsatisfactory results induce anxiety in patients and doctors. Recently, a number of new technologies have been developed to improve the detection of cervical cancer. Increase the early detection of meaningful pap smear abnormalities, reduce the number of unsatisfactory smears and false negative results and provide fewer ambiguous results one of these method is the new test, include liquid-based to improve the quality and quantity of the cervical pap smear. The aim of this study is to evaluate rate of unsatisfactory smear of cervical cytology in two methods, conventional pap smear (CP) and liquid-Based (L.B).

Methods: A comparison cross-sectional study was performed from 2004-2005 on 1500 patients referred to Ghaem hospital and private clinic. From all patients cervical cytology was taken randomly via two methods CP and L.B. Subsequently frequency unsatisfactory cervical cytology in tow methods evaluated. Statistical analysis using the SPSS soft ware was done and t-test and c² used for comparative evaluation.

Results: Considering the incidence of unsatisfactory cervical cytology in CP method %0.3 was and in LB method %1 was. Sensitivity of the C.P method was 68.8% and that of the L.B method was 83.1%.

Conclusion: In this study incidence unsatisfactory rate in L.B method was higher than C.P method.
Poster Presentation: Cervical Cancer
THE CORRELATION OF SERUM SQUAMOUS CELL CARCINOMA ANTIGEN IN CERVICAL CANCER AND THEIR RESPONSE TO RADIATION THERAPY

F.H. Shandiz¹, M. Afsharzadeh², Z.T. Ayarani-Najaran², Z. Yosefee², N.S. Systany², A. Babaei², M. Babaei²

¹Cancer Research Center, ²Mashhad University of Medical Sciences, Mashhad, Iran

Introduction: Cervical cancer is the most common gynecologic cancer in our geographic region. Squamous cell carcinoma antigen is recognized as a prognostic indicator for this cancer and in previous studies its correlation has been demonstrated with tumor response to radiation.

Objectives: To investigate the frequency of SCC-Ag in blood samples taken from cervical cancer patients in order to predict the impending appearance of tumors and to evaluate the correlation of SCC-Ag levels with clinical and pathologic tumor response to.

Material and method: Patients with pathologically confirmed cervical cancer participated in this study. A thorough history was taken, a questionnaire was filled out and pretreatment serum SCC-Ag levels at mid and end of radiation and the 1st and 3rd months after completing treatment were measured by RIA and compared with the clinicopathological response of the tumor.

Results: SCC-Ag levels (average of 9.84 ng/ml) were positive and there was a mean of 7 ng/ml (59.6%) SCC-Ag levels. According to primary evaluations, there was no statistically significant difference with age, grade, stage, and pathology type. There was a significant relation between tumor response to radiotherapy and SCC-Ag serum before, during, and the end of treatment and the 1st and 3rd months after the end of radiation therapy.
Poster Presentation: Cervical Cancer  
CARCINOMA CERVIX, ACUTE TOXICITY AND LOCAL RESPONSE USING THREE FRACTIONS OF HDR BRACHYTHERAPY; EXPERIENCE AT AGA KHAN HOSPITAL KARACHI, PAKISTAN

N. Ali  
Oncology, Aga Khan University Hospital, Karachi, Pakistan

Objectives: To report acute vaginal toxicity and response after External Beam Radiotherapy (EBRT) and three fractions each of 8 Gy High Doase Rate (HDR) brachytherapy.

Methods: After inception of HDR brachytherapy services at AKUH in January 2008, we formulated a protocol for carcinoma cervix to complete the entire treatment within 7 weeks. Patients with locally advanced carcinoma cervix were treated with concurrent Cisplatin +/- Gemcitabine pelvic chemo-radiation up-to 4500 cGy/25 fractions, followed by three intra-cavitary HDR brachytherapies, 8 Gy each at point A, started during the last week of EBRT. At the completion of treatment vaginal toxicity and response were assessed clinically.

Results: Between January/2008 and December/2012 we treated 30 patients. All were staged according to FIGO system. The number of patients having stage 1B2 were 02, IIA 01, IIB 22, IIIB 03, and IVB 02. The intended treatment schedule of 07 weeks was achieved in 27 patients while 03 patients completed treatment in an additional week. Grade III and Grade IV acute vaginal mucosal toxicities were observed in 24 and 06 patients, respectively. Local tumor response was assessed clinically at a follow-up visit of 04 weeks post treatment. All the 30 patients were found to be in complete clinical remission. Our results are comparable with internationally published literature.

Conclusion: The regimen of 3 fractions of 8 Gy HDR Brachytherapy treatments is feasible, efficacious, and well-tolerated treatment strategy for carcinoma cervix in local setup. Long term toxicity and disease control remain to be evaluated with longer follow up.
Poster Presentation: Cervical Cancer  
LYMPH NODE METASTASIS IN CERVICAL CANCER; NOVEL DIAGNOSTIC CRITERIA IN MULTI-DETECTOR COMPUTED TOMOGRAPHY AND ESTIMATED EFFICACY OF NEOADJUVANT CHEMOTHERAPY

K. Yamanoi¹, N. Matsumura¹, A. Kido², Y. Yoshioka¹, J. Hamanishi¹, K. Yamaguchi¹, H.A. Taleb¹, T. Baba¹, K. Togashi², I. Konishi¹

¹Gynecology and Obstetrics, ²Diagnostic Imaging and Nuclear Medicine, Graduate school of Medicine, Kyoto University, Kyoto, Japan

Introduction: Lymph node (LN) metastasis is the important prognostic factor in uterine cervical cancer, and its preoperative diagnosis is essential. Multi-detector CT (MDCT) is a novel method of imaging, allowing much improvement of resolution. This is the first study that analyzed the utility of MDCT in cervical cancer.

Methods: From July 2007, we started MDCT examination for cervical cancer patients. We compared MDCT images taken every 1mm slice preoperatively and pathological diagnosis in 78 cervical cancer cases that underwent primary operation to develop novel criteria for preoperative LN metastasis diagnosis. We used short axis diameter of LNs. Furthermore, we analyzed 28 NAC cases to estimate the efficacy of NAC on LN metastases of cervical cancer.

Results: 7 mm was the optimal cut-off in a patient-by-patient analysis. This cut-off yielded sensitivity; 67%, specificity; 85% to detect patients with metastasized LNs. Then, 5 mm was the optimal cut-off in a region-by-region analysis. This cut-off yielded sensitivity; 71%, specificity; 79% to detect an involved LN region. NAC significantly decreased LN size (p< 0.0001), and among 132 LNs over 5 mm in size, 77 became under 5 mm after NAC. LN swollen patients (>7mm) decreased from 71 % (20/28) to 32 % (9/28). LN swollen regions (>5mm) decreased from 80 to 41.

Conclusion: MDCT is useful for the detailed detection of LNs. The efficacy of NAC on LN metastasis of cervical cancer was estimated for the first time. The novel cut-off based on the MDCT image helps individualized treatment of cervical cancer patients.
Poster Presentation: Cervical Cancer
RADIOCHEMOTHERAPY AND ROBOTIC SURGERY IN CERVICAL CANCER

R. Anghel¹, I. Isacu², A. Tarlea², X. Bacinschi², L. Gales², C. Vasilescu³, L. Serbanescu²

¹Radiochemotherapy Department, ²Institute of Oncology, ³Clinical Institute Fundeni, Bucharest, Romania

Purpose: To assess multimodal treatment, comprising radiation therapy, chemotherapy and robot-assisted surgery, in cervical cancer, a frequent and serious condition requiring more intense efforts for better results.

Methods: Between February 2008 and October 2012, 62 patients (age 23 - 71 years) with cervical carcinoma have been referred to the Radiochemotherapy Department of the Oncological Institute, Bucharest, for neoadjuvant or adjuvant treatment. The neoadjuvant treatment consisted in concomitant radiotherapy and weekly Cisplatin (26 patients = 42%) or radiation therapy alone (36 patients = 58%). Robotic radical hysterectomy with bilateral anexectomy and lymph nodes dissection has been performed after 4 - 6 weeks. Adjuvant chemotherapy with Cisplatin and 5-FU or Cisplatin and Topotecan has been administered for 24 patients.

Results: Pathological response after neoadjuvant treatment was: complete remission - 30/62 patients (48.4%), partial remission - 32/62 patients (51.6%). Only grade I and II toxicity has been reported: digestive - diarrhea 36/62 (58%), hematological - anemia 13/62 (21%) and leucopenia 19/62 (30.6%). After median follow-up 32 months, the disease-free survival rate was 81.2%. At the moment of the results evaluation, 59 patients are alive, 6 with local recurrence, 1 with metastases.

Conclusion: Robot-assisted surgery combined with radiotherapy and chemotherapy proves to be a valuable multimodal treatment for cervical cancer, leading to a high response rate with acceptable toxicity. Although currently expensive, robotic surgery offers significant benefits (faster recovery with shorter hospital stay, decreased blood loss and transfusion rates, decreased postoperative pain), while maintaining the excellent oncological outcomes of an open approach.
Poster Presentation: Cervical Cancer
AGGRESSIVE CLINIC-PATHOLOGICAL CHARACTERISTICS OF CERVICAL CANCER IN SOUTHWESTERN CHINA AND CLINICAL SIGNIFICANCE OF LYMPH NODE METASTASES AMONG YOUNG PATIENTS

L.Y. Yang, H.J. Wang
Gynecology and Obstetrics, West China Second Hospital, Sichuan University, Chengdu, China

Introduction: The morbidity of cervical cancer in the hinterland of southwestern China is still considerable. For young women there were no studies which analyzed the clinical significance of postoperative pathological risk factors.

Objective: The aim of this study was to retrospectively review records of women with invasive cervical cancers. We also selected young patients under 35 years old so as to seek the relevance between clinical significance of postoperative pathological risk factors and survivals.

Result: The proportion of patients with cervical cancer aged 35 year or younger is rising. Preoperatively diagnosed advanced FIGO stage might predict a higher potential of postoperative pathologic high risk factors existence. The main histological type of cervical cancer in young women was low differentiated squamous cell carcinoma. Young patients with high risk factors had worse prognosis. As the result of multivariate analysis, histological type and lymph node metastases played a critical role as prognostic factors of cervical cancer.

Conclusion: We should continually enhance the effective early diagnosis for patients with cervical cancer, especially aged 35 year or younger. Preoperative FIGO clinic stage and postoperative pathologic characteristics of cervical cancer are of great significance for choosing proper treatment, reducing mortality, improving quality of life (QOL) and prognosis. Non-squamous cell carcinoma increased the risk of lymph node metastases. Patients with high risk factors, especially with lymph node metastases, should be paid more attention and offered further proper therapies to improve the prognosis, quality of life and survival rate.
Poster Presentation: Cervical Cancer
EVALUATION THE VALUE OF UPAR OF SERUM AND TISSUE ON PATIENTS WITH CERVICAL CANCER
J. Jing
Shanxi Cancer Hospital, Taiyuan, China

Aim: We investigated the relationship between the uPAR in sera and tissues of patients with cervical cancer.

Methods: Immunohistochemistry was used to detect uPAR expression in tissues; ELISA was employed to assay the uPAR levels.

Results: The results showed a positive rate of uPAR expression was 66%, no uPAR expression in normal tissues. The uPAR levels in cancer tissue were significantly higher than those of adjacent tissues (p < 0.001). The tissue uPAR levels are correlated with the TNM stages, lymph node metastasis and the degree of differentiation instead of tumor-infiltrating and vessel thrombosis. Serum uPAR levels of patients were significantly increased compared with health control group (P< 0.001). Single-factor analysis shows that the serum uPAR levels of pre-operative patients are related with clinical grade, lymph node metastasis, vein embolism and the depth of infiltration instead of tumor differentiation. Multiple regression analysis found that the factors affecting preoperative serum suPAR include clinical stage (p = 0.000), pelvic lymph node metastasis (p = 0.000) and the depth of myometrial invasion (p = 0.001). The serum suPAR levels of patients with cervical cancer after surgery are significantly decreased compared with pre-operation (p < 0.001). The uPAR levels of serum and tissue present a positive correlation (r = 0.705, p < 0.001).

Conclusions: The suPAR may be a more convenient indicator to reflect the uPAR system activity in vivo. It could be a tumor marker for clinical diagnosis, treatment and prognosis monitor of cervical cancer.
Poster Presentation: Cervical Cancer

**KNOWLEDGE, ATTITUDE AND PRACTICE OF CERVICAL CANCER SCREENING AMONG THE WOMEN ATTENDING OUT PATIENT DEPARTMENT**

J. Ferdous

Obstetrics and Gynecology, Bangabandhu Sheikh Mujib Medical University, Dhaka, Bangladesh

**Background and aims:** Cervical cancer is the second most common cancer in women worldwide, but 80% of cancer occur in developing countries. Bangladesh faces a burden of diseases, in spite of having established screening program. This study was done to determine the knowledge, attitude and practice of cervical cancer screening among the women attending outpatient department.

**Method:** This cross-sectional study was done in the Department of Obstetrics and Gynecology of Bangabandhu Sheikh Mujib Medical University. Two hundred women were enrolled in this study by purposive sampling. All the information was collected in a questionnaire. Data were analyzed using statistical program SPSS version:17.0. Frequency distributions, Chi-square test and Fisher's exact test were calculated and the significant level was set at P< 0.05.

**Result:** About 12% of women had good knowledge regarding cervical cancer screening. Seventy eight percent of women did not ever have a screening test and 78.5% of women had no access to the facility of having a screening test. Seventy five percent of women had never been suggested by a doctor to have a screening test. The more the participants’ age, low level of education and poor knowledge, the less the practice of cervical cancer screening. The most common reason cited for not having screening test was the lack of information.

**Conclusion:** The women studied here demonstrated a very low coverage of the screening test and a poor knowledge regarding its utility. Improving the awareness is imperative for better implementation of cervical cancer screening program in Bangladesh.
Poster Presentation: Cervical Cancer
CONCURRENT CHEMOTHERAPY AND HYPERTHERMIA IN PATIENTS WITH RECURRENT CERVICAL CANCER AFTER CHEMORADIATION: OUTCOME AND SURVIVAL

S.T. Heijkoop¹, H.C. van Doorn¹, I.A. Broere², M. Franckena³, J. van der Velden⁴, L.J.A. Stalpers⁵, A.M. Westermann⁶

¹Obstetrics and Gynaecology, ²Medical Oncology, ³Radiation Oncology, Hyperthermia Unit, Erasmus Medical Center, Rotterdam, ⁴Obstetrics and Gynaecology, ⁵Radiation Oncology, ⁶Medical Oncology, Amsterdam Medical Centre, Amsterdam, The Netherlands

Objective: To evaluate the outcome of cisplatin based chemotherapy with concurrent hyperthermia in patients with recurrent cervical cancer in first line treatment.

Methods: Patients with recurrent disease were treated with concurrent platinum based chemotherapy and hyperthermia. From the hyperthermia database in the Amsterdam Medical Centre and the Erasmus Medical Centre Rotterdam 38 patients were selected, treated between 1988 and 2011. Patients had had platin based chemoradiotherapy, or neoadjuvant chemotherapy followed by surgery or radiotherapy in the first line. As by protocol all patients with recurrent cervical cancer received 6 or 8 platinum-based chemotherapy cycles in combination with 6 or 8 hyperthermia sessions. The time-to-event variables were estimated using the Kaplan-Meier analysis. P-values less than 0.05 were considered significant.

Results: Mean age of patients at relapse was 45.7 years (range 27-74). Twenty patients had locoregional recurrence and 4 patients had distant metastases. Median time to recurrence after first line treatment was 15 months. 17/38 patients received all six or eight courses of cisplatin chemotherapy depending on hospital policy. The median follow-up time after treatment was 6.5 months. The incidence of grade 3-4 hematologic complications did not exceed 10%. Overall survival at 12 months was 23%. Despite treatment 35 patients died with disease.

Conclusion: In this retrospective study concurrent treatment with cisplatin and hyperthermia after first line chemoradiation seemed to have a poor response on survival of patients.
A POTENT CLINICAL IMPACT OF POLYMORPHISM OF UGT1A1 IN PATIENTS OF CERVICAL CANCER

N. Horikawa, T. Baba, R. Murakami, K. Yamanoi, J. Hamanishi, Y. Yoshioka, N. Matsumura, K. Yamaguchi, I. Konishi

Gynecology and Obstetrics, Kyoto University, Kyoto, Japan

Aims: Recent randomized trials have indicated the benefit of neoadjuvant chemotherapy (NAC) followed by surgery for locally advanced cervical cancer compared with surgery alone. There is, however, still no way to predict the efficacy of NAC in each case. UDP-glucuronosyl transferase 1A1 (UGT1A1) genotypes are well-known to be associated with side-effects of Irinotecan, but it is unclear whether polymorphism of UGT1A1 has impact on efficacy of chemotherapy. As Irinotecan has been gradually employed with Nedaplatin for NAC, we analyze UGT1A1 genotypes in cervical cancers and its correlation with efficacy of NAC and side-effects to evaluate if it is possible to estimate efficacy of Irinotecan prior to treatment.

Methods: From January 2010 to December 2012, 21 cervical cancer patients who received NAC with irinotecan and nedaplatin were enrolled in this study (Ib2: n=8, Ib: n=13). UGT1A1 genotype was determined before initiating chemotherapy. Efficacy of NAC was determined by tumor reduction rate on MRI.

Results: Following genotypes of UGT1A1 were found. *1/*1 genotype (wild type) in 11 cases, *1/*28 in 5 cases, *1/*6 in 5 cases. 47.6% of patients with cervical cancer had polymorphism, and this rate was higher than other gynecological cancers (30.0% p=0.17). Tumor reduction rate was significantly higher in patients with polymorphism than wild type (79.4% vs 58.4% p=0.011).

Conclusions: UGT1A1 polymorphism may contribute to the efficacy of Irinotecan over the treatment of cervical cancer. Comprehensive genomic analysis might be effective to characterize the pathophysiology of cervical cancer to establish a new tailor-made treatment.
Poster Presentation: Cervical Cancer
ROLE OF P16 IMMUNOHISTOCHEMISTRY INVESTIGATION IN HIGH-RISK HUMAN PAPILLOMAVIRUS RELATED LESIONS OF THE UTERINE CERVIX IN HOSPITAL TUANKU JA’AFAR, MALAYSIA
P. Krishnappa, Y.J. Lin
Pathology, International Medical University, Kuala Lumpur, Malaysia

Objective: To evaluate the diagnostic value of p16 immunohistochemical investigation in high-risk human papillomavirus related lesions of the uterine cervix in Hospital Tuanku Jaafar, Seremban, Malaysia.

Methods: The cases were selected over a period of 5 years from January 2007 to December 2011. This study constituted three groups Cervicitis, carcinoma in situ and invasive carcinoma cervix consisting of 25 cases in each group. The demographic data of the patients & the representative paraffin blocks along with H&E slides of each case was retrieved from the Pathology Department, Hospital Tuanku Ja'afar. The immunohistochemical staining with p16 and HPV16 L1 were done on all cases, the staining intensity and density were observed. The result tabulated was then run onto the statistical test for analysis.

Results: Patients' age ranged between 21 to 85 years with mean of 49.2 years and median of 48 years. Immunohistochemistry of p16INK4A staining shows nil (0/25) expression in the cervicitis patients, 72% (18/25) in CIN patients and 100% (25/25) in cervical carcinoma. Whereas HPV 16 L1 showed, 100% (25/25) in cervicitis patients, 96% (24/25) in CIN patients and only 40% (10/25) in cervical cancers patients. A chi square test was used to analyze the result and a p value of < 0.05 was obtained.

Conclusion: p16 expression was strongly observed in high grade cervical lesions and minimally observed in low grade cervical lesions. Thus indicating p16 immunohistochemistry investigations can aid in diagnosing the different categories of cervical lesions into high grade (cervical cancer) and low grade (cervicitis) cervical lesions.
Poster Presentation: Cervical Cancer
THE DETECTION OF HPV IN ABNORMAL CERVICAL SMEARS-A CHANCE TO IMPROVE CERVICAL CANCER SCREENING

E. Dzikova¹, G. Dimitrov², E. Trajkovska³

¹High Risk Pregnancy, ²Gynecologic Oncology, University Clinic for Gynecology and Obstetrics, ³PHI 'Dr. Emilija Trajkovska', Skopje, FYROM - The Former Yugoslav Republic of Macedonia

Background and aims: The third most common cancer in female population is the cervical cancer with an estimated 530 000 new cases in 2008 from GLOBOCAN (IARC) data. More than 85% of the cases are reported in developing countries, where it accounts for 13% of all female cancers. According to the WHO (World Health Organization) the incidence of cervical cancer in Europe region is 3.8% (age-standardised rate (ASR) is 10.1%), the mortality rate is 3.4% (ASR is 3.9%) and the 5-year prevalence is 4.6%. In our Country the ASR incidence of cervical cancer 22% and ASR mortality rate is 9.9%. Persistent infection with high-risk human papillomavirus (HPV) can lead to development of cervical cancer. ASCUS is as an “equivocal” finding in cytology that usually hides different grades of cervical precancerous lesions up to microinvasive disease. The aim of our study was to estimate the prognostic significance of HPV PCR typization in patients with abnormal PAP smears (ASCUS) in our region.

Material and methods: HPV PCR typization for high risk (HR) types 16, 18, 31, 33 and low risk (LR) 6 and 11 was an inclusive screening test for 378 PAP smears divided into 2 groups: 149 with koilocytosis, 229 with ASCUS.

Results: 19% of LR- HPV types 6 and 11 were mostly associated with koilocytosis and 45% of HR-HPV types were detected in ASCUS PAP smears.

Conclusions: In our study we concluded that HPV PCR typization on abnormal cervical smears can improve cervical cancer screening.
Poster Presentation: Cervical Cancer  
DISTRIBUTION OF HUMAN PAPILLOMAVIRUS TYPES IN GIRLS AND ADOLESCENT WOMEN WITH NORMAL CYTOLOGICAL FINDINGS  
G. Dimitrov¹, E. Dzikova², E. Trajkovska³  
¹Gynecologic Oncology, ²High Risk Pregnancy, University Clinic for Gynecology and Obstetrics, ³PHI ‘Dr. Emilija Trajkovska’, Skopje, FYROM - The Former Yugoslav Republic of Macedonia

Background and aims: Cervico-vaginal infection with human papillomavirus (HPV) has a leading etiologic role in development and progression of cervical cancer, one of the most frequent forms of cancer among women in developing countries. We set out to estimate the age and genotype-specific prevalence of cervical HPV DNA in girls and adolescent women with normal cervical cytology.

Methods: 1070 girls and adolescent women underwent routine conventional smears (Pap tests) with normal colposcopic and cytological diagnoses. In each case HPV infection was primarily evaluated by PCR for HPV genotype determination.

Results: From 1070 patients investigated, 110 were HPV positive. The most prevalent genotypes among the infected samples were HPV16 (36-32.5%), HPV31 (19-17%), HPV18 (9-8.5%), and HPV52 (8-7%). The rest 35% (28 patients) falls off other undetermined types of HPV genotypes.

Conclusions: Today in the era of HPV vaccines, it is very important to evaluate the distribution of potentially malignant HPV genotypes by using molecular investigation for HPV genotypes thus predicting the effect of vaccines on the incidence of infection.
Poster Presentation: Cervical Cancer

DISTRIBUTION OF HPV TYPES IN CORRELATION WITH CYTOLOGY AND HISTOLOGY IN PATIENTS FROM THE OUTPATIENT DEPARTMENT

E. Trajkovska¹, G. Dimitrov², E. Dzikova³

¹PHI 'Dr. Emilija Trajkovska', ²Gynecologic Oncology, ³High Risk Pregnancy, University Clinic for Gynecology and Obstetrics, Skopje, FYROM - The Former Yugoslav Republic of Macedonia

Background and aims: The cervical pathology as the most common gynecologic pathology among young women, is one of the priorities in our national health protection programme. Our study was conducted to determine the most common cytological, histological and HPV typization results in our region.

Methods: 1465 patients were analyzed in the outpatient department using cervical PAP smears, biopsies and/or endocervical curettage, and HPV typization.

Results: The PAP-test results of the 1465 examined patients were as follows: CIN1 (n=112, 7.6%), CIN2(n=23, 1.5%), CIN3(n=14, 0.9%), ASCUS(n=17, 1.1%), AGUS(n=5, 0.3%), and koilocytic atypia (viral affected changes). HPV-PCR typization was made on 226 patients. 60 of them were found HPV positive: HPV6(n=13, 4.8%), HPV16(n=15, 6.6%), HPV31(n=12, 5.3%), HPV58(n=10, 4.4%), HPV18(n=5, 2.2%) and other undetermined types. In 171 patients DNA was not detected. In 226 patients (15.4%) with epithelial cell abnormalities, 122 biopsies and/or endocervical curettage were performed, and histologically verified the following: CIN1(n=62, 4.2%) CIN2(n=28, 1.9%), CIN3(n=21, 1.4%, cervicitis virosa(n=36, 2.4%).

Conclusions: The analyses showed that HPV16 is the most common in HSIL (high grade squamous intraepithelial lesion) as well as in patients with normal findings. HPV6 was confirmed only in patients with low risk precursor lesions, as well as benign condylomata (condylomata acuminata, flat condyloma). HPV31 was found in different stages of precursor lesions. HPV66 and HPV53 were common in precursor lesion of low level, but HPV58 was connected to patients with HPV changes as well as precursor lesions of higher grade CIN2 and CIN3.
Poster Presentation: Cervical Cancer

PARA-AORTIC LYMPH NODE (PAN) ASSESSMENT AND ITS SURGICAL INDICATION IN PATIENTS WITH STAGE IB-IIA CERVICAL CANCER

X. Wu, J. Li, Y. Zhou

Cancer Hospital of Fudan University, Shanghai, China

Objective: To investigate the frequency of PAN involvement in stage IB-IIA cervical carcinoma and to determine the feasibility and indication of para-aortic lymphadenectomy.

Methods: Medical records of 563 patients with Stages IB-IIA cervical carcinoma who underwent radical hysterectomy and systematic pelvic and PAN dissection from 2005 to 2011 were investigated retrospectively. Multiple logistic regression analysis was employed to determine the high-risk factors for PAN metastasis.

Results: The frequency of PAN involvement was 9.8% (55 patients) for all of the 563 patients and was 5.4%, 8.2%, 13.0%, and 14.9% in FIGO stage IB1, IB2, IIA1, and IIA2, respectively. 168 (29.9%) patients had pelvic lymph node (PLN) metastases and 64 (11.4%) had common iliac lymph node (CILN) metastases. In a multivariate analysis, FIGO Stage, tumor size, and pelvic nodal involvement were independent risk factors for PAN metastasis. By using a receiver operating characteristic (ROC) curve, we found the optimal cut off point of tumor size to predict PAN metastasis was 3cm (sensitivity, 94.1%; specificity, 35.6%). The mean operating time for para-aortic lymphadenectomy was 30 min (range 20-45 min) and the median blood loss during the overall surgical procedure was 400 ml (range 100-1450 ml). The rate of surgical complications was 8%, but no surgery-related death occurred.

Conclusion: PAN dissection is safe and feasible for cervical cancer patients. It is recommended that paraaortic lymphadenectomy should be routinely done for stage IB-IIA cervical cancer patients whose tumor size is no less than 3cm.
Poster Presentation: Cervical Cancer
TREATMENT OUTCOME AFTER COLD KNIFE CONIZATION FOR PRE-MALIGNANT CERVICAL LESIONS: A FIVE YEAR REVIEW IN A TERTIARY GOVERNMENT HOSPITAL

R.A. Garcia¹,², M.L.L. Sia Su¹

¹Obstetrics and Gynecology (Gynecologic Oncology), University of the Philippines - Philippine General Hospital, Metro Manila, ²Obstetrics and Gynecology, Eastern Visayas Regional Medical Center, Tacloban, Philippines

Introduction: Cervical cancer is the leading female genital tract malignancy in the Philippines. In 2008, the estimated age-standardized national incidence rate was 11.7 per 100,000. In countries with organized Paps smear screening programs, there is consistent and dramatic decline of up to 70% in both cervical cancer incidence and mortality. The detection and appropriate treatment of cervical intraepithelial neoplasia (CIN), also contributes to the decline in cervical cancer incidence. In our institution, cold knife conization is a treatment modality for CIN.

Objectives: This study was conducted to determine the incidence of persistence, recurrence and progression of the CIN, the incidence of underlying invasive carcinoma, the incidence of stenosis and obstetrical complications after cold knife conization.

Methodology: The study was a retrospective descriptive study which included 35 patients who underwent cold knife conization for pre-malignant cervical lesion from January 2007 to December 2011. The data obtained from the study was analysed using descriptive statistics.

Results: In this review series, the CIN recurrence rate was 3.25 %, the incidence of underlying carcinoma was 11.43 % and the incidence of cervical stenosis was 6.45 %. No case of persistence was noted, no case of true progression was documented and, as none of the patients had pregnancy after the conization, the incidence of post-conization obstetrical complications could not be determined.

Conclusion: Based on this review series, cold knife conization appears to have a cure rate of 97%.
Poster Presentation: Cervical Cancer
SUPERFICIAL ENDOMETRIAL SPREAD OF IN-SITU SQUAMOUS CELL CARCINOMA OF THE UTERINE CERVIX

C. Saldanha, S.S. Parampalli, K. Pai, S.T. Bhat
Pathology, Manipal University, Manipal, India

Introduction: Among the cancers seen in India, squamous cell carcinoma of the uterine cervix is one of the most common malignancies. An invasive squamous cell carcinoma of the cervix can spread anywhere in the female genital tract. However, superficial spread of in-situ squamous cell carcinoma of the cervix into the endometrium is unusual and only in a few cases have been reported.

Case report: A 55 year old woman came with complaints of difficulty in passing urine and mass per vaginum since 3 months and white discharge since 1 month. Per vaginal examination revealed cervical erosion which would bleed on touch. She was diagnosed to have third degree uterine prolapse with cervical erosion. A vaginal hysterectomy was performed.

On gross examination of the vaginal hysterectomy specimen, cervix showed only erosion with no obvious growth. Microscopic examination revealed an in-situ squamous cell carcinoma of the cervix which spread superficially into the endometrium with foci of intra-glandular extension. No evidence of parametrial extension was observed. Patient was then referred to the oncologist and advised regular follow up.

Conclusion: An in-situ squamous cell carcinoma of the cervix showing superficial spread into the endometrium is exceptionally rare. This case report has been written to emphasize the need for adequate sampling of the specimen to identify such phenomenon which will help in planning appropriate management.
Poster Presentation: Cervical Cancer
ENDOCERVICAL ADENOCARCINOMA WITH SILVA PATTERN B ARE AT LOW RISK OF LYMPH NODE METASTASES OR RECURRENCE


1Pathology, Univ California, Irvine, 2Long Beach Memorial Todd Cancer Inst, Long Beach, CA, 3Cleveland Clinic, Cleveland, OH, 4Baylor College of Medicine, Houston, TX, USA, 5Mexican Oncology Hospital, Mexico, Mexico, 6Memorial Sloan Kettering, New York, NY, 7Wayne State University, Detroit, MI, USA, 8Instituto Nacional de Cancerologia, Mexico, Mexico, 9University of Toronto, Toronto, ON, Canada, 10Cedars-Sinai Medical Center, Los Angeles, CA, USA, 11Kwandong University, Kwandong, Republic of Korea, 12Kyoto University Hospital, Kyoto, Japan, 13University of Mississippi, Jackson, MS, USA, 14Shikoku Cancer Center, Matsuyama, Japan, 15McMaster University, Hamilton, ON, Canada, 16The University of Texas MD Anderson Cancer Center, Houston, TX, USA

Background: Endocervical adenocarcinoma (ECAd) is staged by depth of invasion (DOI) and tumor size. Nodal dissection is standard treatment for FIGO stage > IA1. However, predicting risk of nodal metastases is poor using standard criteria, so the authors devised a novel 'Silva Pattern of Invasion' which better predicts risk. This study examines in detail Pattern B tumors, defined by only minor foci of destructive stromal invasion.

Materials and methods: 90 cases of ECAd, all of the usual type, were treated with surgical removal, and nodal dissection of 4-60 nodes (ave 22). Follow-up of 2 to 394 (ave 54) months was available in 80 cases. Nodal metastases or recurrence was correlated with the following factors: DOI, tumor size, lymphovascular invasion (LVI), and Silva Pattern.

Results: 4 patients had nodal metastases (1 to 2, ave 1 positive node), and one vaginal recurrence (Positive cases). DOI for these 5 cases was 1.5 to 4 (ave 3.1) mm, less than the average 4.8 mm for the 85 patients with negative nodes/ benign follow-up (Negative cases). Tumor size averaged 14 mm for Positive, and 16.4 mm for Negative cases. LVI was seen in 25% of Negative cases, all cases with nodal disease, but not in the vaginal recurrence case.

Conclusion: DOI and tumor size do not add additional prognostic information for Pattern B ECAd. No nodal metastases were seen in Pattern B tumors lacking LVI. Given the low number of involved nodes in Pattern B tumors sentinel node sampling should be studied.
Poster Presentation: Cervical Cancer
QUANTIFICATION AND GENOTYPING OF HUMAN PAPILLOMAVIRUS BY REAL-TIME PCR AND HPV DNA CHIP IN CERVICAL SAMPLES

Cheil General Hospital and Women's Healthcare Center, Kwandong University, College of Medicine, Seoul, Republic of Korea

Objectives: Although Pap smear and Hybrid capture II (HC-II) are commonly used for detection of HPV, these methods have limitation because the correlation between cytology lesion, HPV types and viral loads per cell are not completely reflected. We introduce improved useful method based on Real-time PCR (RT-PCR) and Microarray HPV genotyping.

Method: We tested novel primer sets (GPM7 Forward/Reverse) that target in the conserved L1 region of HPV genome to detect the broad range HPV types, at least 36 types, and evaluation of viral loads per cell. Generated RT-PCR products that are Cy-5 labeled in reverse primers are directly used to screen genotype on microarray.

Results: This assay applied on 150 genital samples that were presented cytological abnormality, and were HC II positive in 64% (n=96) and negative in 36% (n=54). In our results, when RT-PCR negative range was adjusted at below 100 copy, RT-PCR Positive was 80% and negative was 20%. Genotyping was sequently performed with RT-PCR Positive samples by microarray. 85.5% of 55 ASC-US classified samples were identified genotype, mainly type 16 (16.4%), and 14.5% of them were negative. Each HPV positive ratio was 85.5%, 86.7%, 96.9% and 100% in ASC-US, LSIL, HSIL and Cancer.

Conclusions: Although the relation of statistical significance between viral load and cytology was not cleared, we verified its increased pattern in high grad lesion. Quantification and identification of HPV by connected methods with RT-PCR and DNA chip will be helpful to predict the progression of cervical cancer.
Poster Presentation: Cervical Cancer

EXPRESSION OF BIOMARKERS IN THE DIAGNOSIS OF CERVICAL INTRAEPITHELIAL NEOPLASIA

V. Bozhenko¹, Y. Kreynina¹, L. Ashrafyan¹, N. Mellnikova¹, I. Antonova¹, E. Kudinova¹, O. Aleshikova¹, O. Burmenskaya², N. Dvinskih¹, D. Trofimof², V. Solodkiy¹

¹Russian Scientific Center of Roentgenoradiology, ²Company DNA-Technology, Moscow, Russia

Background: The development of objective molecular genetic criteria for predicting the course of cervical intraepithelial neoplasia (CIN) is still actual. We analyzed KI67, Aurora A, Birc5, cyclin B1, BCL2, BAG1, BAX, ESR, PRG, p16INKa, p16arf and hTERT expression in normal cervical epithelium, CIN I-III and cervical cancer by quantitative PCR.

Aim: The aim of this study was to evaluate the specificity of gene expression analysis by quantitative PCR for differential diagnosis of CIN2+/CIN1 or less biopsy specimens.

Methods: 8 patients with squamous cell carcinoma of the cervix and 10 patients with CIN1-CIN3 were tested for expression of 12 mRNA biomarkers by quantitative PCR in scrapes. The control group consisted of 12 women with histologically unchanged cervical epithelium.

Results: The discriminant analysis revealed the opportunity for distinguishing of biopsy specimens with and without CIN 2+. Percent of correct classification for group with histological confirmed CIN2 or worse was 76,9%, and for group with CIN1or less was 94,1%. The total percent of predicted classifications is 86,7%.

Conclusion: The addition of expression analysis of gene panel by quantitative PCR to morphological examination of CIN could be helpful in differential diagnosis of cervical neoplasia
Poster Presentation: Cervical Cancer
PREOPERATIVE PREDICTION OF LYMPH NODE METASTASES WITH SERUM SQUAMOUS CELL CARCINOMA ANTIGEN IN EARLY-Stage CERVICAL CANCER

C.G. Gerestein\textsuperscript{1,2}, S.H. Benneheij\textsuperscript{1}, C.W. Burger\textsuperscript{1}, H.C. van Doorn\textsuperscript{1}

\textsuperscript{1}Department of Gynaecology and Gynaecological Oncology, Erasmus MC, Rotterdam, \textsuperscript{2}Department of Gynaecology, Meander medisch Centrum, Amersfoort, The Netherlands

Objectives: Preoperative detection of lymph node metastases in patients with early-stage cervical cancer has the potential benefit of changing treatment options and prevention of multimodality treatment.

Aim of this study was to determine the predictive value of preoperative serum squamous cell carcinoma antigen (SCC-Ag) levels for lymph node metastases.

Patients and methods: All patients who underwent a radical hysterectomy with pelvic lymphadenectomy for early-stage (FIGO IB1/IIA) cervical cancer between January 2001 and December 2011 were identified from the Rotterdam Cancer Registry database. SCC-Ag levels were correlated with histopathologic findings. Receiver-operator curves were constructed for SCC-Ag level as a predictor for lymph node metastases.

Results: One hundred fifty-one patients entered the study protocol. Twenty patients (13\%) were diagnosed with lymph node metastases. The optimal cut-off for serum SCC-Ag as a predictor of lymph node metastases was 1.0 ng/ml. (sensitivity 65.0\%, specificity 83.2\%, NPV 94.0\%).

Conclusions: Preoperative SCC-Ag levels could predict lymph node metastases in patients with early-stage squamous cell cervical cancer and could be valuable to achieve more tailored diagnostic and treatment strategies.
Poster Presentation: Cervical Cancer
EXPERIENCE IN TREATING PATIENTS WITH CERVICAL CANCER STAGE IB

E. Manzhura¹, G. Vakylenko², V. Mitskevich¹, K. Kharchenko¹, V. Korniienko¹

¹Kyiv City Clinical Oncology Center, ²O. O. Bogomolets National Medical University, Kyiv, Ukraine

Introduction: Nowadays cervical cancer (CC) occupies one of the leading places in the world in the structure of the female oncological morbidity and mortality. Over the year 2010 cervical cancer in Ukraine constantly takes the 5th place in the structure of morbidity from malignant neoplasias (6.0 %); CC also takes the 7th place in the structure of female mortality from malignant neoplasias and contributes to the 5.7 % among 10 main nosologies.

Aim: studying of the treatment results of the patients suffering from cervical cancer IB1 and IB2 stages

Method: The combined treatment included Wertheim operation - III type radical panhysterectomy with preservation of ureteral blood supply and subsequent course of adjuvant radiotherapy.

Result: The frequency of postoperative complications was 9.1 %, following radiotherapy - 15.2 %, and hydronephrosis were observed at 5.1 % of the patients. Total 5-year survival rate of cervical cancer patients with Ib1 stage was 98.3 %, with Ib2 stage - 91.1 % (p< 0.05). Total 5 year recurrence-free survival rate of cervical cancer with Ib1 stage was 98.3%, with Ib2 stage - 89.9% (p< 0.05).

Conclusion: Upon analysis of the number of complications in the group of cervical cancer patients, we can conclude that the surgical techniques with preservation of ureter blood supply and subsequent course of radiotherapy in combined and complex treatment doesn’t lead to increase in the number of complications. The 5-year and recurrence-free survival rate of cervical cancer patients proves that the radiotherapy is the integral component in cervical cancer patients treatment.
Poster Presentation: Cervical Cancer
EVALUATION CYTO-COLPO-HISTOPATHOLOGICAL: A ROUTINE STUDY IN LIMA- PERU

J.C. Dueñas Chacon
Fertility Center PROCREAR, Lima, Peru

Objective: Confirm the utility and efficacy of a combined routine study cyto-colpo-histological in the Peruvian population for the evaluation of cervical lesion, determining the sensitivity of the cytology and colposcopy, and establishing a concordance with histopathology diagnosis, the gold standard in the diagnosis of cervical disease.

Methods: A retrospective evaluation was made in ONCOGYN Clinic (Lima - Peru), between 2010 - 2011. Only those patients with abnormal cytology and/or colposcopy were asked to get cervical biopsy.

Results: From 18,610 evaluated patients, it was found that only 585 patients had study cytology, colposcopy and histopathological. The sensitivity rates of cytology, colposcopy and cytocolposcopy was 20.7%, 92.0% and 94.7% respectively. The positive predictive value was 86.7%, 85.9% and 97.6% respectively. The concordance between cytology and histopathology was 29.2%, between colposcopy and histopathology was 80.2% and between cytology, colposcopy and histopathology was 94.7% showed a high correspondence (k = 0.79, p-value 0.000).

Conclusions: The simultaneously study, massive and routine with cytological and colposcopy of the cervix confirms that it is a powerful tool the cytocolposcopy primary and recommended for routine studies in the evaluation of cervical lesions.
Poster Presentation: Cervical Cancer
A CLINICOPATHOLOGICAL STUDY OF PAPILLARY SQUAMOUS CELL CARCINOMA OF UTERINE CERVIX

M. Nagura, N. Matsumura, I. Konishi

Gynecology and Obstetrics, Kyoto University, Kyoto, Japan

Papillary squamous cell carcinoma (PSCC) of uterine cervix is characterized by a papillary exophytic growth pattern of atypical epithelium. PSCC is difficult to be pathologically evaluated exactly by pre-operative biopsy alone. Therefore we have to be careful in dealing with its pre-operative findings. We retrospectively investigated 31 cervical cancer cases whose pre-operative biopsy presented PSCC findings, for the purpose of searching appropriate way to evaluate pre-operative PSCC findings. The 31 pre-operative PSCC cases were divided into 15 of “true PSCC” cases, whose post-operative specimens presented PSCC, and 16 of “false PSCC” cases, whose post-operative specimens was not diagnosed as PSCC. True PSCC cases contained significantly more cases which had neither stromal invasion (over 3 mm in depth) nor lymphovascular space invasion, cases which had no lymph node metastasis, and cases whose lesion was not detected with MRI pre-operatively (Chi-square, p=0.012, p=0.006, and p=0.002, respectively). There was no significant difference between “true PSCC” and “false PSCC” in frequency of cases whose lesion was visible, cases whose stage was IB1 or more, and cases whose treatment was assigned with radical hysterectomy. Therefore we conclude that less invasive surgery could be applicable to “true PSCC” cases, and that MRI may be useful to identify “true PSCC” among cases diagnosed as PSCC by pre-operative biopsies.
Poster Presentation: Cervical Cancer
MANAGEMENT OF STAGE IIB-BULKY CERVICAL CANCER IN THE SECOND TRIMESTER OF PREGNANCY

- Catherine¹,² - Hasanuddin²

¹Department of Obstetric and Gynecology, University of Indonesia, Jakarta, ²Department of Obstetric and Gynecology, Syiah Kuala University, Banda Aceh, Indonesia

Objective: Reporting management of cervical cancer in second trimester of pregnancy.

Method: Case report.

Results: We present a case of a 32-year-old woman with stage IIB-bulky cervical cancer in second trimester pregnancy who underwent conservative therapy. She received 2 cycles of neoadjuvant chemotherapy consisting of carboplatin and paclitaxel regimen. The baby was delivered by caesarean section afterwards. Neonatal examination of the baby on the birth day could not reveal any abnormalities. After caesarean section, the patient had her third cycle of chemotherapy, and was planned to have radical hysterectomy, bilateral pelvic lymphadenectomy and 3 cycles of chemotherapy.

Conclusion: Cervical cancer in pregnancy should be treated on a case-by-case basis according to the gestational age, the tumour size, radiological findings, and the wish of the patient to preserve the pregnancy. The management of cervical cancer in second trimester of pregnancy is still debatable. The use of neoadjuvant chemotherapy enabled us to continue this pregnancy until the fetus was viable. Carboplatin and paclitaxel did not influence the short-term outcome, but only a long-term follow-up will inform us on its safety during pregnancy.
Poster Presentation: Cervical Cancer

DISTRIBUTION OF HUMAN PAPILLOMAVIRUS TYPES IN CERVICAL INTRAEPITHELIAL NEOPLASIA OVER THE YEARS 1994-1998 AND 2006-2010 IN KOREA

C.H. Lee¹, J.W. Roh¹, Y.S. Song²

¹Obstetrics and Gynecology, Dongguk University, Goyang, ²Obstetrics and Gynecology, Seoul National University, Seoul, Republic of Korea

Objective: There is little information on the natural change in the distribution of HPV types over time which could affect the efficacy of the current HPV vaccines. The aims of this study were to assess the temporal change in the distribution of HPV types in unvaccinated women with cervical intraepithelial neoplasia (CIN) between 1994-1998 and 2006-2010 and to establish baseline data on HPV type distribution in CIN to monitor potential type replacement in Korea.

Materials and methods: HPV genotyping was performed on formalin-fixed paraffin-embedded cervical tissues diagnosed with CIN from the years 1994-1998 (204 cases; 64 CIN1, 23 CIN2, and 117 CIN3) and 2006-2010 (257 cases; 79 CIN1, 44 CIN2, and 134 CIN3). Distribution of HPV types were compared between the two periods according to the severity of CIN.

Results: There was no significant change in the prevalence of most of the high risk (HR) HPV types, including HPV16/18 targeted by the current prophylactic vaccines. The prevalence of specific HPV types was similar in CIN1 between the two periods, whereas the prevalence of HPV59, 53, 11, 40, and 70 in CIN2/3 was higher in 2006-2010 than in 1994-1998 (p < 0.05).

Conclusions: Our data suggest that the prevalence of most of the HR HPV types except HPV59 and 53 in CIN has been stable over time. However, further researches on the time trends of HPV type distribution in general population over longer time interval are needed.
Poster Presentation: Cervical Cancer
WARTY CARCINOMA OF UTERINE CERVIX - CASE REPORT
G.O. Olaru
Obsterics and Gynecology, University of Medicine and Pharmacy "Carol Davila", Bucharest, Romania

Introduction: In the most commonly used system for histological reporting of cervical cancers: "The Histologic Classification of Epithelial Tumors of the Uterine Cervix" by the World Health Organization (WHO), the warty carcinoma is included as a variant of squamous cell carcinoma. Case reports or small series studies show that this particular cancer can be associated with human papillomavirus (HPV) infection, more often with the high-risk genotypes 16 and 18, or even multiple HPV types (6, 11, 16, 33) in the same time.

Case presentation: I present the case of a 58-year-old woman with a vegetant cervical tumor. After the biopsy of the tumour, a histopathologic exam and immunohistochemistry tests revealed she was suffering from a warty carcinoma of the uterine cervix. The treatment plan that followed included radiotherapy and radical hysterectomy with anexectomy and pelvic lymphadenectomy. A human papillomavirus infection was suggested on the basis of cytological and histological examinations and were followed by tests that revealed the presence of human papillomavirus type-45.

Conclusion: The warty (condylomatous) carcinoma resembles to a condyloma acuminatum or with an verrucous carcinoma and this may lead to regrettable confusions.

In this case I found an association with the human papillomavirus-45 who can be regarded as causative factor. The complex relationship between HPV infection, coexisting risk factors and morphological appearance are yet to be discovered.
Poster Presentation: Cervical Cancer
THE ROLE OF HPV TEST IN THE FOLLOW-UP OF HIGH-GRADE CERVICAL INTRAEPITHELIAL NEOPLASIA TREATED WITH EXCISIONAL PROCEDURES

M. Grigore¹, I. Dumitrascu²

¹Obstetrics and Gynecology, ²University of Medicine and Pharmacy ‘Gr. T. Popa’, Iasi, Romania

Aims: To evaluate the frequency of HPV infection in patients during the follow-up period, after treatment for cervical intraepithelial neoplasia and to examine the role of high-risk HPV as prediction of recurrent or residual CIN.

Methods: We analyzed 34 women treated with conization or LLETZ (large loop excision of the transformation zone) for high-grade intraepithelial lesion. The cases were followed-up by HR-HPV DNA test 4 months after the excision procedure and further followed by colposcopy and cytology every 6-month intervals for 24 months.

Results: During the follow-up period we had 3 cases (8.8%) with residual or recurrent CIN. All three had HR-HPV test positive, two had a positive follow-up smear and one had positive margins at excision. From 34 treated women, 7 were HR-HPV positive, 3 had an abnormal smear and 6 had positive section margins. Women with HR-HPV DNA at 4 months showed recurrent or residual CIN in 14% (1/7) if they had normal follow-up Pap smears and in 50% (2/4) if they had abnormal Pap smears. Margin status was not statistically significant associated with Human Papillomavirus status. The absence of HR-HPV DNA has a 100% negative predictive value.

Conclusions: On the basis of the study results it seems recommendable that the HPV test should be used as a method of detection of residual HPV infection after conization. Data suggest that HPV testing should be integrated in a follow-up algorithm after conization for CIN.
Poster Presentation: Cervical Cancer
FERTILITY-SPARING SURGERY FOR PEDIATRIC PATIENTS WITH BOTRYOID RHABDOMYOSARCOMA INVOLVING THE UTERINE CERVIX

J. Li, X. Wu
Cancer Hospital of Fudan University, Shanghai, China

Introduction: Botryoid rhabdomyosarcoma of the uterine cervix, which is most often seen arising in the adolescents, is extremely rare. In the past, this tumor was best treated with pelvic exenteration and chemoradiation.

Objective: To report our experience on fertility-sparing treatment of pediatric botryoid rhabdomyosarcoma of the uterine cervix. To discuss proper selective criteria and type of surgery for fertility-sparing treatment with this disease.

Method: We conducted a retrospective review of a prospectively maintained database of patients undergoing fertility-sparing surgery for cervical botryoid rhabdomyosarcoma at our institution from 08/2006 to 09/2012.

Result: We presented here ten pediatric (adolescent) patients with botryoid rhabdomyosarcoma involving the uterine cervix. Median age was 15.9 years (range, 11-25). The first patient was offered cervical conization while other nine patients underwent radical abdominal trachelectomy and pelvic lymph node biopsy. They all accepted adjuvant chemotherapy and presented with favorable outcomes at a median follow-up of 28.3 months (range, 3-77 months).

Conclusion: In properly selected cases of cervical botryoid rhabdomyosarcoma, conservative surgeries should attempt to preserve reproductive function without compromising in survival. Radical abdominal trachelectomy and pelvic lymph node biopsy have appeared to secure local disease control. Radical abdominal trachelectomy with skills preserving uterine arteries may allow sufficient blood supply to maintain uterine viability and achieve future fertility, and thus benefit the adolescent patients.
Poster Presentation: Cervical Cancer
EFFECTIVE ROLE OF P16/KI-67 DUAL IMMUNOSTAIN FOR CERVICAL CYTOLOGY WITH ATYPICAL SQUAMOUS CELLS, CANNOT EXCLUDE HIGH-GRADE SQUAMOUS INTRAEPITHELIAL LESION


Cheil General Hospital and Women's Healthcare Center, Kwandong University College of Medicine, Seoul, Republic of Korea

Objectives: To evaluate the accuracy of p16/Ki-67 dual immunostaining assay for cervical intraepithelial neoplasia (CIN) compared with high risk-Human Papillomavirus (HR-HPV) testing in women with atypical squamous cells, cannot exclude high-grade squamous intraepithelial lesion (ASC-H) cytology.

Methods: Data from seventy-three patients who received HPV genotyping and histologic examination for ASC-H Pap smear were collected. CINtec®PLUS kit was used on liquid-based residual material and the positivity was graded from 1 to 4 according to the number of dual-stained cells. Accuracy was evaluated based on the histologic results from colposcopy-guided biopsy or cervical conization on follow-up.

Results: In a total of 70 patients with available data, the positive rate of p16/Ki-67 increased with histologic severity as follows; 14.8% in normal histology, 66.7% in CIN1, 90% in CIN2, and 100% in CIN3. Average grade of positive p16/Ki-67 also increased from 0.2 in normal histology, 1.2 in CIN1, 2.4 in CIN2, and 2.9 in CIN3 (p < 0.01). p16/Ki-67 positivity was 100% in HR-HPV-negative CIN3 and 0% in HR-HPV-negative normal histology. For patients with CIN2+, p16/Ki-67 showed 94.6%, 75.8%, 81.4%, and 92.6% and HR-HPV testing showed 67.6%, 66.7%, 69.4%, and 64.7% of sensitivity, specificity, and positive and negative predictive values, respectively.

Conclusion: p16/Ki-67 immunostaining has a higher sensitivity than that of HPV DNA testing in ASC-H cytology maintaining a high specificity for detecting CIN2+. Given the improved concordance with histologic diagnosis, p16/Ki-67 dual expression can be a useful adjunct for predicting high grade lesions in clinical practice.
**Poster Presentation: Cervical Cancer**

**LYMPH-VASCULAR SPACE INVASION AND TUMOR SIZE CORRELATION TO LYMPH NODE METASTASIS IN EARLY-STAGE CERVICAL CANCER IN DR.CIPTO MANGUNKUSUMO HOSPITAL**

- Catherine¹,², G. Tanamas¹,², S. Purbadi¹,², F. Kusuma¹,², T.W. Utami¹,² - Andrijono¹,², H. Winarto¹,²

¹Faculty of Medicine, University of Indonesia, ²Obstetrics and Gynecology, Dr. Cipto Mangunkusumo Hospital, Jakarta, Indonesia

**Aim:** In early-stage cervical cancer, positive lymph node metastasis is a risk factor for recurrence. Several studies reported that lymph node metastasis were correlated with Lymph-Vascular Space Invasion (LVSI) and tumor size. Yet, this correlation remains controversial. In order to know this correlation in our center, evaluation was made from our cancer registry.

**Method:** Data was obtained from DR. Cipto Mangunkusumo Hospital Cancer Registry from January 1st 2000 to December 31st 2012. Cervical cancer patients with LVSI, tumor size, and lymph node metastasis information were included. Patients with incomplete data were excluded. Bivariate analysis were conducted with chi-squared test.

**Result:** From 1684 cases managed in our hospital, only 347 cases fulfilled the inclusion criteria. The median age of patients was 52 years old (range 24-88 years). The most pathological findings of the patients were stage IB1 (46.69%), Squamous Cell Carcinoma (68.3%), moderately differentiated (51.3%), negative LVSI (51.59%), ≤ 4 cm tumor size (77.23%), and negative lymph node metastasis (69.74%). LVSI was an independent factor for lymph node metastasis (P< 0.01, Odds Ratio 2.461), whereas tumor size was not an independent factor for lymph node metastasis (P=0.388, Odds Ratio 1.265) for early-stage cervical cancer patients.

**Conclusion:** Lymph-Vascular Space Invasion was an independent factor for lymph node metastasis, whereas tumor size was not an independent factor for early-stage cervical cancer patients.
Poster Presentation: Cervical Cancer
THE HIGH PREVALENCE OF HIGH RISK HPV TYPES AMONG NEGATIVE VISUAL INSPECTION OF ACETIC ACID (VIA) OF INDONESIAN WOMEN
T.W. Utami\textsuperscript{1,2}, S.M. Syafitri\textsuperscript{1,2}, L. Nuranna\textsuperscript{1,2}, H. Winarto\textsuperscript{1,2}, K.H. Nuryanto\textsuperscript{1,2}, A.A.W. Peters\textsuperscript{3}, G.J. Fleuren\textsuperscript{4}, V. Spaans\textsuperscript{4}, S. Purbadi\textsuperscript{1,2}

\textsuperscript{1}Faculty of Medicine, University of Indonesia, \textsuperscript{2}Obstetrics and Gynecology, Dr. Cipto Mangunkusumo Hospital, Jakarta, Indonesia, \textsuperscript{3}Gynecology, \textsuperscript{4}Pathology, Leiden University Medical Center, Leiden, The Netherlands

Objective: High risk HPV is known to be the major cause of cervical cancer. It is important to differentiate the genotype of HPV infection, whether it is high risk, intermediate or low risk. This study aims to assess the prevalence of high risk HPV types among negative VIA of Indonesian women.

Method: We processed the cervical swab from 1214 patients with negative VIA. By using PCR, electrophoresis and hybridization test, we detected the HPV DNA and its genotype.

Result: From 1214 women with negative VIA, 48 (3.95\%) samples were confirmed positive HPV DNA by using PCR and electrophoresis. However, HPV genotypes were not detected in 9 out of 48 samples by using hybridization test. These 9 samples were tested again with PCR and electrophoresis and resulted in negative HPV DNA. Among the remaining 39 samples (3.21\%), we detected 19 types of HPV, consist of 68.42\% (13 types) high risk HPV, 26.32\% (5 types) low risk HPV and 5.26\% unknown HPV (type X).

Conclusion: Among the negative VIA, there were 3.21\% positive HPV DNA. From this percentage, the prevalence of high risk HPV is higher than the low risk and unknown HPV. Based on that result, we can not ignore all negative VIA, because there is a slight possibility that it actually contains HPV, especially the high risk ones which are prone to be persistent, as the etiology of cervical cancer. We support other studies that stated HPV DNA test as cervical cancer screening method.
Poster Presentation: Cervical Cancer

HPV GENOTYPES AND ITS PREVALENCE IN NORMAL POPULATION: A CROSS SECTIONAL STUDY IN JAKARTA, INDONESIA

T.W. Utami¹, S.M. Syafitri¹, L. Nuranna¹, - Andrijono¹, T.D. Anggraeni¹, A.D. Putra¹, A.A.W. Peters³, G.J. Fleuren⁴, G. Purwoto¹

¹Faculty of Medicine, University of Indonesia, ²Obstetrics and Gynecology, Dr. Cipto Mangunkusumo Hospital, Jakarta, Indonesia, ³Gynecology, ⁴Pathology, Leiden University Medical Center, Leiden, The Netherlands

Objective: Over 200 types of HPV have been recognized on the basis of DNA sequence data showing genomic differences. Among them, 85 HPV genotypes are well characterized, which 40 of those types are known to infect anogenital tract. The aim of this study is to assess the variation of HPV types and their prevalence among negative VIA as normal population in Indonesian women.

Method: We processed the cervical swab from patient with negative VIA. HPV DNA and its genotypes were detected by using PCR, electrophoresis and hybridization test. We also classified whether each infection is single or mixed.

Result: From 1214 women with negative VIA, 39 (3.21%) samples were positive HPV by using PCR method. Among these 39 samples, we detected 19 types of HPV, which consist of 68.42% (13 types) high risk HPV, 26.32% (5 types) low risk HPV and 5.26% unknown HPV (type X). Of total samples, 43.59% were mixed infections and 56.41% were single infections. The single infections prevalence include mostly high risk HPV as the leading prevalence, which are HPV 16 (22.73%) and HPV 52 (22.73%). The remaining are type 6, 44, 18, 51 and 66, with each prevalence in single infections is 4.54%, while mixed infection consist of variable types.

Conclusion: Mixed infection rate among the negative VIA in Indonesian women is higher than general prevalence, whereas single HPV infections among the negative VIA are mostly dominated by high risk HPV.
Poster Presentation: Cervical Cancer

EXPRESSION OF EPIDERMAL GROWTH FACTOR RECEPTOR IN CERVICAL CANCER STAGE III IN DR CIPTO MANGUNKUSUMO GENERAL HOSPITAL JAKARTA INDONESIA

F. Kusuma1,2, L. Nuranna1,2, C. Sitorus1,2, K.H. Nuryanto1,2, S. Gondhowiardjo1,3, A. Munandar1,3, B. Siregar1,4

1Faculty of Medicine, University of Indonesia, 2Obstetrics and Gynecology, 3Radiotherapy, 4Pathology Anatomy, Dr Cipto Mangunkusumo Hospital, Jakarta, Indonesia

Background: Human papillomavirus infection (HPV) plays a role in the malignant transformation of cervical epithelium, cancer development and progression depends largely upon the activity of epidermal growth factor receptors (EGFR). EGFR contributes to cell proliferation, regulation of apoptosis, angiogenesis, adhesion, and metastatic spread. Overexpression EGFR is associated with poor prognosis. This study was aimed to evaluate EGFR expression and its correlation with primary tumor size, pelvic and para-aortal lymph nodes metastasis, and hydronephrosis in stage III cervical cancer.

Methods: EGFR expression in primary tumor tissue of cervical cancer stage III (FIGO staging) was determined by immunohistochemical technique according to EGFR kit (DAKO, Denmark). Semi quantitative scoring system was used to define EGFR expression: 0 no staining; 1+ weak; 2+ moderate; and 3+ strong of invasive tumor cells. Tumor size, pelvic and para-aortal lymph nodes metastasis as well as hydronephrosis were determined by CT scan.

Result: Fifty patients were assessed. Twelve (24%) showed EGF negative staining, 3 patients (6%) +1 weak, 18 (36%) +2 moderate, and 17 (34%) +3 strong. The EGFR overexpression (+2 and +3) was found in 35 (70%) of stage III cervical cancer patients. Overexpression of EGFR was not correlated with primary tumor size (p=0.681), pelvic and paraaortal lymph nodes metastasis (p=0.601 and p=1, respectively). There was positive correlation with the occurrence of hydronephrosis (p=0.07).

Conclusion: Overexpression of EGFR was found in primary tumor tissue of the most patients with stage III cervical cancer but it was not correlated with tumor size and lymph nodes metastasis.
**Poster Presentation: Cervical Cancer**

**THE PROSPECT OF VISUAL INSPECTION OF ACETIC ACID (VIA) AS THE STANDARD CERVICAL CANCER SCREENING METHOD IN INDONESIA**

T.W. Utami¹,2, S.M. Syafitri¹,2, M.F. Aziz¹,2, F. Kusuma¹,2, A.A.W. Peters³, G.J. Fleuren⁴, M. Osse⁴, L. Nuranna¹,2

¹Faculty of Medicine, University of Indonesia, ²Obstetrics and Gynecology, Dr. Cipto Mangunkusumo Hospital, Jakarta, Indonesia, ³Gynecology, ⁴Pathology, Leiden University Medical Center, Leiden, The Netherlands

**Objective:** Cervical cancer still become huge burden in Indonesia. The lack of effective programs for screening pre-cancerous lesion, thus we can treat adequately before becoming invasive, is one of contributing factor. Visual inspection of the cervix after acetic acid application (VIA) is an effective method in cervical cancer screening, particularly in low resource settings. The test is very simple, cheap and can be performed by general practitioners, midwives even nurse widely. We would like to determine the false negative of VIA in our study population according to PCR as the gold standard.

**Method:** We processed the cervical swab from patient with negative VIA. By using PCR and electrophoresis test, we detected the HPV DNA.

**Result:** From 1279 women with negative VIA, 65 samples were excluded because of lack of database and double in whale. And of the 1214 women with negative VIA, 39 samples were confirmed positive HPV by both PCR and hybridization, which means false negative of VIA is 3.21%.

**Conclusion:** According to our study, we support VIA as a very effective method in detecting pre-cancerous lesion, even when it is compared to cytology. With minimal cost, VIA gives an excellent finding, so that it is very suitable to be used in developing countries like Indonesia to eventually decrease incidence of cervical cancer.
CHARACTERISTICS OF YOUNG WOMEN WITH CERVICAL CANCER IN DR. CIPTO MANGUNKUSUMO HOSPITAL

G. Tanamas¹,², H. Winarto¹,², L. Nuranna¹,², T.D. Anggraeni¹,²
¹Faculty of Medicine, University of Indonesia, ²Obstetrics and Gynecology, Dr. Cipto Mangunkusumo Hospital, Jakarta, Indonesia

Aim: In Indonesia, cervical cancer is the second most common cancer among women. It is estimated about 15,050 women have been diagnosed with cervical cancer and 7,566 women die every year. Several studies have reported that young women have poorer prognosis. The aim of this study is to evaluate the clinicopathological characteristics of young women with cervical cancer from our hospital.

Method: In this cross-sectional study, data were collected from hospital Cancer Registry from January 2000 to December 2012. Cervical cancer patients with age under 30 years old were included. Missing data were completed by reviewing medical records and interviewing the patients by phone. Patients with incomplete data were excluded.

Result: From 45 data, only 30 data were included to this study. The median age of the patients was 28 years old (SD 2.705, range 16-30 years old). The median coitarche age of patients was 18 years old (SD 3.241, range 12-25 years old). Mostly, the patients were housewives (86.7%), java ethnics (40%), elementary graduates (46.7%), single sexual partner (66.7%), non-smokers (90%), and non-contraceptive users (66.7%). Most of the patients were diagnosed with Stage IIIB (46.7%), Squamous Cell Carcinoma (70%), moderately differentiated (46.7%), >4cm tumor size (70%), absent Lymph-Vascular Space Invasion, anemic condition (83.3%), normal serum ureum and serum creatinine (73.3% and 70%). Only 10 patients (33.3%) completed their treatment. Among them were complete response (13.3%), partial response (6.7%), and progressive (13.3%).

Conclusion: Most of young women in our Hospital came with advanced stage cervical cancer and anemic condition.
Poster Presentation: Cervical Cancer
PERCENTAGE OF WOMEN SCREENED BEFORE FOLLOWING SEE AND TREAT PROGRAM IN JAKARTA

S. Purbadi¹,², G. Purwoto¹,², H. Winarto¹,², A.D. Putra¹,², P. Utami¹,², B. Pratiwi³, Y. Syahfitri³, A.A.W. Peters⁴

¹Faculty of Medicine, University of Indonesia, ²Obstetrics and Gynecology, Dr Cipto Mangunkusumo Hospital, ³Female Cancer Program FKUI-RSCM, Jakarta, Indonesia, ⁴Obstetrics and Gynecology, Leiden University Medical Center, Leiden, The Netherlands

Backgrounds: Indonesia does not have cervical cancer screening system yet. Pap smear test which has been used as a screening method is not possible for Indonesian women. To solve this problem, “See & Treat” program was established in collaboration with health division of local government. This program uses VIA test to screen and cryotherapy to treat VIA positive. VIA test is non-invasive, simple, low cost, and can be done even in limited facilities and resources.

Aims: To obtain cervical cancer screening percentage by Pap Smears test and VIA (Visual Inspection of Acetic Acid) test in Jakarta before following “See and Treat” program.

Methods: Information that the women had been screened by VIA test or Pap smear test was collected from anamnesis during the See and Treat program runs in Jakarta from October 2007 until December 2012. Percentage was defined as the proportion of women who have ever screened either with VIA test or Pap smear test compared to all the women who were screened on “See and Treat” program at that period.

Results: Of women who follow the program, there are 16.5% had had at least one Pap / VIA test in their lifetime.

Conclusions: Percentage rates were 16.5 % in this study. Due to the large number of participants, there is possibility this program could be adopted as national screening program in Indonesia.
Poster Presentation: Cervical Cancer
RESIDUAL LESION AFTER HYSTERECTOMY FOR PATIENTS WITH SURGICAL MARGIN POSITIVE OVER THAN CARCINOMA IN SITU

I.S. Park, D.G. Hong, Y.S. Lee, Y.L. Cho, G.O. Chong, Y.H. Lee
OBGYn, Kyungpook National University Medical Center, Daegu, Republic of Korea

Objective: This study analyzed residual lesion after hysterectomy for patients with surgical margin positive after L.E.E.P over than carcinoma in situ and relations between the factors for residual lesion.

Method: We evaluated 1329 patients from January 2000 to June 2010. 314 patients who underwent hysterectomy due to surgical margin positive which is over than carcinoma in situ were analyzed for the residual tumor and relations between factors.

Result: In carcinoma in situ group, the residual cervix after hysterectomy had no residual lesion (56.8%), moderate dysplasia (1%), carcinoma in situ (35.8%), microinvasive cancer (6%) and invasive cancer (0.4%). In adenocarcinoma in situ group, the residual cervix had no residual lesion (46.7%), adenocarcinoma in situ (33.3%) and microinvasive cancer (20%). In microinvasive cancer group, the residual cervix had no residual lesion (54.5%), severe dysplasia (1%), carcinoma in situ (21.6%), microinvasive cancer (21.6%) and invasive cancer (1%). The severity of residual tumor was directly proportional to age (P < 0.01) and positive endocervical curettage on L.E.E.P (P < 0.01), but inverse proportional to exocervical (P < 0.01) or endocervical (P = 0.04) margin positive. The type of instrument for L.E.E.P had no effect on the residual lesion after hysterectomy (P = 0.10).

Conclusion: we recommend reconization or preservative treatment for margin positive less than carcinoma in situ, but hysterectomy for old age, endocervical curettage positive, microinvasive cancer margin positive and adenocarcinoma in situ margin positive lesion.
PREVALENCE OF CERVICAL CANCER IN SEE AND TREAT PROGRAM IN INDONESIA

S. Budiningsih1, L. Nuranna2,3, G. Purwoto2,3, E. Rahajeng4, B. Fatum4, A. Agustina5, M. Melvina5, R.L. Avriyani5, A.A.W. Peters6

1Community Medicine, Faculty of Medicine, 2Faculty of Medicine, University of Indonesia, 3Obstetrics and Gynecology, Dr Cipto Mangunkusumo Hospital, 4Ministry of Health, 5Female Cancer Program (FCP) FKUI-RSCM, Jakarta, Indonesia, 6Obstetrics and Gynecology, Leiden University Medical Center, Leiden, The Netherlands

Background: Indonesia, as one of developing countries, has major health problem among women because of its high incidence and mortality in cervical cancer. Until now Indonesia doesn’t have its prevalence in community.

The See and Treat (S&T) method is a screening and treatment program on cervical cancer which is very suitable in low resource settings. Women are screened with Visual Inspection with Acetic Acid (VIA). This method could find precancerous cervical lesion as well as invasive cancer lesion.

Aim: To obtain prevalence of cervical cancer in S&T in Indonesia which has been running for 9 years.

Material and method: A descriptive study, using secondary data from S&T program at primary health care covering women at risk in 15 cities conducted by FCP and Ministry of Health during 2003 until 2012. Cervical cancer is suspected by finding the symptoms and inspeculo examination.

Result: We found 335 new cervical cancer cases among 175,163 screened women. The prevalence of cervical cancer in S&T program in Indonesia is 191 per 100,000 women. Range of prevalence among the 15 cities is 0 to 1,181 per 100,000. The three highest prevalence were found in Gowa, Gresik, Malang (1,811, 602, 595) which are suburban low resource setting area in Indonesia.

Conclusions: The prevalence of cervical cancer in 15 cities in Indonesia by VIA approach is 191 per 100,000 women. The range among 15 cities is 0-1,181 per 100,000.
Poster Presentation: Cervical Cancer
POST-OPERATIVE TAXANE-PLANTINUM THERAPY AND THE OVERALL SURVIVAL IN NEUROENDOCRINE CERVICAL CARCINOMA

X. Liu¹, J. Zhang², S.-W. Guo³

¹Gynecology, Shanghai OB/GYN Hospital, Fudan University, Shanghai, ²Obstetrics and Gynecology, The Third People's Hospital of Kunshan, Kunshan, ³Institute of Obstetric and Gynecological Research, Shanghai OB/GYN Hospital, Fudan University, Shanghai, China

Background and objective: Neuroendocrine cervical carcinoma (NECC) is a rare malignancy. NECC is highly aggressive, with an early lymphatic dissemination and a high rate of distant recurrences, and has a high mortality despite of aggressive surgical treatment. The aim of this study was to see as whether taxane-plantinum (TP) therapy after surgery can improve overall survival in NECC.

Methods: Twenty-seven women with FIGO stage Ia2 (n=2), Ib1 (n=20), Ib2 (n=4), and IIa1 (n=1) were treated with surgery, followed by post-operative TP or non-TP, with or without radiotherapy, in our hospital between 2004 and 2012. Medical charts were retrospectively reviewed and clinical data retrieved. The Kaplan-Meier method, and the Cox regression model were used for survival analysis.

Results: The 27 patients had a median age of 39 years (range=25—63). The overall 5-year survival rate was 54.3% (95% confidence interval (CI): 36.6%--80.5%). Lymphovascular space invasion was seen in 20 patients (74.1%). Eleven (40.7%) had lymph node metastases, and 4 (14.8%) had parametrial infiltration. Nineteen patients received post-operative TP therapy, 7 received non-TP chemotherapy, and 1 received no chemotherapy at all. All but one patient received radiation therapy. Univariate analysis indicated that stage, tumor size and the mode of post-operative chemotherapy are predictive for patients' overall survival. However, multivariate Cox regression indicated that tumor size is the only predictor for survival.

Conclusion: NECC is a deadly variant of cervical cancer. Postoperative taxane-plantinum therapy may improve the overall survival in women with NECC but tumor size appears to be more predictive.
Poster Presentation: Cervical Cancer

**IN VITRO CYTOTOXIC EFFECTS OF DILLENA SUFFRUTICOSA EXTRACTS AGAINST CERVICAL ADENOCARCINOMA CELLS (HELA)**

S. Zulfahmi¹,², L. Saiful Yazan¹,³, H. Ithnin⁴, N. Armania¹,³

¹Laboratory of Molecular Biomedicine, Institute of Bioscience, Universiti Putra Malaysia (UPM), Serdang, ²Faculty of Dentistry, Universiti Sains Islam Malaysia (USIM), Kuala Lumpur, ³Department of Biomedical Science, Faculty of Medicine and Health Sciences, ⁴Department of Pathology, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia (UPM), Serdang, Malaysia

*Dillenia suffruticosa* is a local plant found in Malaysia which has been utilized to treat cancerous cell growth. However, the effect of *D. suffruticosa* extracts in cervical cancer is unknown. Thus, the objective of this study was to determine the cytotoxic effects of *D. suffruticosa* extracts in cervical adenocarcinoma cells (HeLa). Treatments with methanolic and water extracts have demonstrated cytotoxic effect towards HeLa cells in a concentration-dependent manner. Methanolic extract was more cytotoxic than the water extract. However, both extracts were found to be less cytotoxic towards the non-cancerous mouse fibroblasts cell (NIH/3T3). Morphological studies demonstrated that the cells treated with both extracts of *D. suffruticosa* exhibited features of apoptosis including membrane blebbing, nuclear condensation as well as formation of apoptotic bodies. Based on the Flow cytometric analysis, it has demonstrated the accumulation of the treated cells at the sub-G₁ phase (indicative of apoptosis) without arrest at any phases of the cell cycle, suggesting that the extracts were cytocidal. Annexin V-FITC/PI assay based on the flow cytometry analysis has confirmed the mode of cell death induced by both extracts of *D. suffruticosa* in HeLa cells by the apoptotic being more pronounced than necrotic features. As a conclusion, the findings has shown that the extracts of *D. suffruticosa* demonstrated cytotoxic effects against HeLa cells by inhibiting the growth of the cells in a concentration-dependent manner and apoptosis was major mode of cell death.
Poster Presentation: Cervical Cancer
CEVIX SPARING PROCEDURE IN THE TREATMENT OF CIN III IN YOUNG AGE GROUP

K.S. Ryu¹, Y.J. Moon²

¹Obstetrics & Gynecology, Yeouido St. Mary’s Hospital, Catholic University of Korea, ²Obstetrics & Gynecology, Yeouido St. Mary’s Hospital, Catholic University of Korea, Seoul, Republic of Korea

Objective: Conization is the treatment of choice of CIN III, but obstetric complication especially preterm labor. Marked increasing incidence of CIN in young age group is growing interest of cervix sparing procedure of the treatment of CIN.

Methods: We analysed cervix sparing procedure in young age group (group 1) CIN III from 2005 Jan. to 2010 Dec. 58 cases (below 35 year) were performed cervix sparing procedure and 102 (35 year more) treated using standard conization. Cervix sparing procedures are mini-size conization or wide excision biopsy with electrocautery. Pap test, HPV typing and colposcopy was performed before and 6-8month after treatment.

Results: The cut margin involvement in young age group was 22 out of 58 (38.9%), exo/end/both margin (+) : 14/3/5, repectively. Those of group 2 was 16 of 102 (15.7%), exo/end/both margin (+) : 7/3/6. On follow-up Pap and HPV test, 45 cases (77.6%) were all negative, 6 cases (10.3%) positive (Pap or/both HPV test) and 7 cases (12.1%) were loss of follow-up in group 1. In group 2, complete remission in 89 (87.3%), 9 cases (8.8%) positive (Pap or/both HPV test) and 4 cases (3.9%) were loss of follow-up. In group 1, only exo-margin involved cases (14, 24.1%) converted to negative in 85.7% (12 out of 14) on follow-up.

Conclusions: Cervix sparing treatment of CIN III in young age is good candidate of alternative treatment to reduce subsequent obstetric risks. Under the colposcopic examination, even though, wide area of CIN III lesions showed excellent result.
Poster Presentation: Cervical Cancer
CERVICAL CANCER SURVIVAL AND PROGNOSTIC FACTORS AT DR CIPTOMANGUNKUSUMO HOSPITAL JAKARTA

R. Prastasari\textsuperscript{1,2}, L. Nuranna\textsuperscript{1,2}, J. Indarti\textsuperscript{1,2}, T.D. Anggraeni\textsuperscript{1,2}, - Andrijono\textsuperscript{1,2}

\textsuperscript{1}Faculty of Medicine, University of Indonesia, \textsuperscript{2}Obstetrics and Gynecology, Dr Cipto Mangunkusumo Hospital, Jakarta, Indonesia

Background and aims: Cervical cancer is the second most common cancer among Indonesian women. Knowing survival probability is very important for the patient and institution. Our last data about cervical cancer survival was studied more than 10 years ago. This study aim was to know the latest cervical cancer survival and its prognostic factors.

Methods: This is a retrospective cohort study that enrolled cervical cancer patients treated at Cipto Mangunkusumo Hospital in 2005/2006. The subjects were followed-up for minimal 5 years. Clinical data were collected. Kaplan-Meier method and Cox-regression analysis was used to determine the survival probability and to assess the prognostic factors.

Results: A total of 447 patients who met the study criteria were selected. Stage III was the largest proportion on this study (41.6%). Most of the histopathology type was squamous cell carcinoma (71.6%). This study revealed the median survival was 63 months and the overall 5-years survival probability was 52%. Tumor size and lymph-vascular invasion showed no differences on survival. The 5-years survival probability for stage I, II, III and IV were 73$, 52$, 36$, and undetected. Stage, tumor differentiation and therapy completeness influenced the cervical cancer survival. Histopathology of others (neuroendocrine) had lower survival probability), but wasn’t significant on multivariate analysis.

Conclusion: Cervical cancer median survival was 63 months. This survival was improved compared with the previous data. Independent influencing factors in this study were stage, tumor differentiation, and therapy completeness.
Poster Presentation: Cervical Cancer

PROGNOSTIC FACTORS OF CERVICAL CANCER AFTER RADICAL Hysterectomy AND PELvic LYMPHADENECTOMY AT DR CIPTO MANGUNKUSUMO HOSPITAL JAKARTA

L. Nuranna1,2, R. Prastasari1,2, T.D. Anggraeni1,2, - Andrijono1,2
1Faculty of Medicine, University of Indonesia, 2Obstetrics and Gynecology, Dr Cipto Mangunkusumo Hospital, Jakarta, Indonesia

Background and aims: Radical hysterecotomy is the standard treatment for early stage cervical cancer. This study was aimed to evaluate the prognostic factors for cervical cancer after radical hysterectomy and pelvic lymphadenectomy.

Methods: This is a retrospective cohort study that enrolled cervical cancer patients underwent radical hysterectomy and bilateral lymphadenectomy at Cipto Mangunkusumo Hospital in 2005/2006. Kaplan-Meier method and Cox-regression analysis was used to determine the survival probability and to assess the prognostic factors.

Results: A total of 86 patients who met the study criteria were selected. Most of the subjects were stage IB (67.4%) and had tumor size ≤ 4 cm (80.2%). A half of the histopathology type was squamous cell carcinoma. Most of the patients received additional radiotherapy/chemo-radiation (76.7%). Most of the patients carried on complete therapy (72.1%). This study revealed 5-years survival probability was 72.8%. Tumor size, stage, lymph-vascular invasion, and positive tumor margin showed no differences on survival. Histopathology type, tumor differentiation, positive tumor lymph node and completeness of the therapy showed significant difference on survival. However, the result of multivariate analysis showed only poor differentiation and positive tumor lymph node giving significant lower survival with HR 9.86 (p=0.012) and HR 11.92 (p=0.000). The adjuvant radiation or chemo-radiation therapy didn’t show any significant differences on survival.

Conclusion: The 5-years survival for patient underwent radical hysterecotomy bilateral lymphadenectomy was 72.87. Independent influencing factors in this study were tumor differentiation and tumor of pelvic lymph nodes.
Poster Presentation: Cervical Cancer

COMBINED DNA METHYLATION ANALYSIS IN LIQUID-BASED PAP TESTS

I.H. Lee¹, Y.J. Koo¹, H.S. Hahn¹, K.T. Lim¹, K.H. Lee¹, J.U. Shim¹, J.W. Kim¹, S.R. Hong², T.J. Kim¹

¹Obsterics and Gynecology, ²Pathology, Cheil General Hospital & Women's Healthcare Center, Seoul, Republic of Korea

Objective: DNA methylation of tumor suppressor genes can serve as a mechanism of carcinogenesis. We assessed the methylation patterns of 4 genes in a full spectrum of cervical lesion.

Methods: A retrospective study was conducted on 206 patients including NIL (n=27), ASCUS (n=39), LSIL (n=44), HSIL (n=48), and cervical cancer (n=48) in liquid-based Pap tests and all patients were HPV-positive. DNA was extracted from cervical scrapings. Methylation levels of genes, such as adenylate cyclase activating polypeptide 1 (ADCYAP1), paired boxed gene 1 (PAX1), cell adhesion molecule 1 (CADM1) and T-lymphocyte maturation associated protein (MAL) were measured by using pyrosequencing. Cutoff values of the percentage of methylation reference (PMR) for different cervical lesions were determined to test the sensitivity and specificity and to generate receiver operating characteristic (ROC) curves.

Results: HPV 16 and 18 had higher incidence in the category of HSIL and carcinoma than less severe cytology category. ADCYP1 and PAX genes were significantly increased in HSIL and cancer compared to NILM, ASC-US and LSIL and MAX & CADM1 genes were significantly increased in cancer compared to other cytology. ASC-US showed variable level. According to ROC curve analysis, the sensitivity and specificity for detecting cervical cancer were 89.6% and 92.3% for ADCYAP1, 77.1% and 100% for PAX1, 58.3% and 96.2% for CADM1, and 70.8% and 96.2% for MAL.

Conclusions: This study suggests that DNA methylation could be related with cervical cancer development and useful marker for early detection of cervical cancer.
Poster Presentation: Cervical Cancer
PRELIMINARY STUDY OF OVARIAN TRANSPOSITION IN CERVICAL CANCER AT CIPTO MANGUNKUSUMO HOSPITAL, JAKARTA, INDONESIA, FROM 2010-2013
E. Febia, F. Kusuma, T.W. Utami, T.D. Anggraeni, H. Winarto
Obstetrics and Gynecology, Faculty of Medicine University of Indonesia, Jakarta, Indonesia

Introduction: Preservation of ovarian function in irradiated young premenopausal cervical cancer patients can be accomplished by ovarian transposition procedure. This study is purposed to evaluate the efficacy, follow up of patients, and outcome of all ovarian transposition procedures that has been done in our hospital in three years.

Method: Ten cases of ovarian transposition procedures by laparoscopy or laparotomy were followed up. We analyzed the data of ovarian reserve hormones, Follicle Stimulating Hormone and Anti Mullerian Hormone before and after radiation therapy in patients underwent ovarian transposition. Inclusion criteria were restricted to patients less than 40 years old, AMH level > 0.1 ng/ml, cervical cancer stage IB until IIIA who wanted to conserve fertility.

Result: Age of patients ranged from 25 until 37 years old. AMH level before radiation therapy was 0.6 (0.16-3.6) ng/ml. From ten patients, only four patients completed radiation therapy, six patients stopped undergoing treatment. Four completed cases descriptively did not show decreased ovarian function, based on the level of Anti Mullerian Hormone.

Conclusion: From four cases with completed irradiation, ovarian transposition procedure might give benefit to maintain ovarian reserve. However, this three-years-study was still preliminary and lack of subjects to conclude the efficacy of ovarian transposition due to low compliance to medication and strict subject criteria. This study is still going on to recruit more subjects.
Poster Presentation: Cervical Cancer
THE LATE TOXICITY OF RECTUM AND BLADDER OF PATIENTS WITH LOCAL ADVANCED CERVICAL CANCER TREATED WITH CT GUIDED BRACHYTHERAPY

M. Shi
Fourth Military Medical University, Xi’an, China

Objective: to observe the late toxicity of rectum and bladder of the Chinese patient with local advanced cervical cancer treated with CT image guided HDR-brachytherapy.

Method and Material: 137 patients with FIGO stage IIA to IVA cervical cancer were treated in xijing hospital from Jan. 2007 to Dec. 2009. The diameter of primary tumor was 4.47±0.97cm. All patients had got the CT image guided external beam radiotherapy and high dose rate brachytherapy. During the external beam radiotherapy, the 82% of patients got concurrent DDP weekly chemotherapy. All patients had got 4-6 times of intracavity brachytherapies, while 27% of them also had got the 1-3 times of interstitial brachytherapies.

Results:
1. The median follow up was 34 months and the 3 year overall survival and progress free survival were 73.4% and 70.4% respectively.
2. As to The accumulated lower gastrointestinal toxicity, grade 1-2 and grade 3-4 were 33.6% and 1.5% respectively. Meanwhile, the grade 1-2 accumulated bladder toxicity was 12.4% without grade 3-4 toxicity.
3. The mean D2cc-EQD2 of rectum and bladder were 75.47±4.04 Gy and 86.22 ± 11.92 Gy respectively
4. The mean D2cc-EQD2 of rectum in patients with grade 0, 1-2, 3-4 toxicity were 68.47±5.62 Gy, 74.45±5.94 Gy and 83±0.57Gy respectively. The difference between each two group of them was statistically significantly (p< 0.05)

Conclusion: This study shows that for Chinese patients with local advanced cervical cancer, less 75 Gy in D2cc-EQD2 of rectum and less 86 Gy in D2cc-EQD2 of bladder seem safe.
Poster Presentation: Cervical Cancer
PI3K MUTATIONS AS POTENTIAL BIOMARKER FOR NON RESPONSE TO CETUXIMAB IN PRIMARY CERVICAL CANCER TREATMENT: RESULTS FROM THE CETUXICOL TRIAL


1 Dept of Oncology, 2 Translational Research Dept, 3 Oncology, Institut Curie, Paris, 4 Radiology, Institut Curie, Pris, 5 Pathology, 6 Translational Research Dept, 7 Surgery, 8 Biostatistics, Institut Curie, Paris, 9 Oncology, Institut Bergonie, Bordeaux, 10 Oncology, Centre Paul Strauss, Strasbourg, 11 Oncology, Centre Val D’Aurelle, Montpellier, 12 Oncology, Centre François Baclesse, Caen, 13 Oncology, Institut Jean Godinot, Reims, 14 Oncology, Centre Alexis Vautrin, Nancy, 15 Oncology, Centre René Gauducheau, Nantes, 16 Radiotherapy, Institut Paoli Calmettes, Marseille, 17 Oncology, Institut Claudius Regaud, Toulouse, 18 Data Management - Biostatistics, 19 Oncology, Institut Curie, Paris, France

Advanced stage cervical cancer (CC) remains a public health issue. EGFR pathway interference is a promising treatment approach, yet no decisive results were achieved in non-selected patients groups (GOG 76-DD).

In a randomized phase 2 design, involving 78 stage IB2-III CC patients from 11 French Centres, we evaluated tolerance, treatment response, and DFS of a 6 weekly combination of Cetuximab (anti EGFR antibody) with standard radio-chemotherapy. Forty patients received the combination therapy (arm A) and 38 patients had standard treatment only (arm B). There was no difference in pre-treatment tumour size (MRI), parametrial involvement, PS, age, and smoking habits. Kaplan Meier estimates at 29 months median FU, showed similar DFS in both arms. Complete response was strongly correlated with excellent DFS (p=0.003). Mutations in PI3KCA and KRAS, assessed in 59% of patients using NGS and SANGER, were detected in 19.5% and 4.3% of patients respectively. Patients with a complete response and without PI3K mutations had a 2 year DFS of 90%, contrasting with 40% in patients with PI3K mutations and/or incomplete response (p=0.0001). EGFR expression, assessed in 80% of patients using IHC, was not significantly related to outcome. The deleterious effect of a PI3K mutation on poor DFS (p=0.05) seems to be more pronounced in arm A.

EGFR targeted therapy in CC remains inconclusive. While treatment tolerance has been satisfactory in both arms, our results, which require further validation, point to PI3K mutations as an important factor impeding Cetuximab response. Detailed analysis of other molecular alterations is ongoing.
Poster Presentation: Cervical Cancer
PREVALENCE AND RISK FACTOR OF VIA-POSITIVE FROM 2007-2011 IN JAKARTA

L. Nuranna¹, N.B. Donny¹, G. Purwoto¹, B.I. Santoso², J. Indarti¹, L. Peters³

¹Oncology Gynecology, ²Urogynecology, FMUI-RSCM, Jakarta, Indonesia, ³Leiden University Medical Center, Leiden, The Netherlands

Objective: The purpose of the study was to report the prevalence and risk factor of VIA-positive in Jakarta from 2007-2011.

Background: Cervical cancer is still the second most frequent cancer in women and therefore screening is important to prevent it. The widespread use of cervical screening programs has dramatically reduced the incidence of invasive cervical cancer. VIA is introduced as an alternative method for cervical cancer screening in low resource setting countries. It is important to know the prevalence of disease in a country, in order to determine the prediction of budget and create a proposal. It is also valuable to know the risk factor that can increase the likelihood of developing the disease.

Material and method: An observational study in community setting has been conducted at several areas. This study was coordinated by Female Cancer Program (FCP) under FMUI-RSCM collaborated with Leiden University. For Jakarta Region, the activities were conclude at 6 monitoring areas. VIA was used as the screening method.

Results: Starting December 2007 to December 2011, there were 26.410 women screened with VIA. there were 849 cases (3.6%) of VIA test positive. The risk factor that significantly can influence the result of VIA was high parity, smoking, and contraceptive that contain hormone like oral contraceptive and injection.

Conclusion: Prevalence of VIA test-positive is still high in Jakarta population (3.6%) and according to our research, the risk factor that significantly can influence the result of VIA was high parity, smoking and contraceptive that contain hormone.
Poster Presentation: Cervical Cancer
CERVICAL CANCER DIAGNOSIS AMONG ROUMANIAN WOMEN
G.O. Olaru
Obstetrics and Gynecology, University of Medicine and Pharmacy "Carol Davila", Bucharest, Romania
Roumanian women have a high incidence of cervical cancer and also high mortality from this disease.

Methods/Design: This study aims to highlight how the diagnosis was reached in patients with cervical cancer.

We performed a retrospective study in patients with cervical cancer, grouped by stage, in which we analysed the reason of the initial consultation and the subsequent investigations leading to the diagnosis. The study included all patients with cervical cancer admitted to our clinic in the last five years.

Results/Discussion: Of all cases 6.7% were in stage I, 56.6% in stage II, 26.7% in stage III and 10% in stage IV.

Metrorrhagia was the reason of the initial consultation for near 86% of this cases, only 10% was an abnormal screening test and 4% a consultation for other symptoms. Nearly 8% of the symptomatic patients did not follow the recommended diagnostic steps after an abnormal screening test or ignored screening result.

Distribution by age group was 6.7% between 31-40 years, 23.3% between 41-50 years, 33.3% between 51-60 years, 26.7% between 61-70 years and 10% between 71-80 years. Almost 23% were over 65 years.

Conclusion: The reason for this high incidence of cervical cancer in Roumania may be attributable to both low rates of screening and poor adherence to recommended diagnostic follow-up after abnormal Pap test.

The age group over 65 years should be closely monitored, we should have better reasons for stopping the screening program at this age and extending the screening can be discussed.
Poster Presentation: Cervical Cancer
PREDICTIVE FACTORS FOR PELVIC LYMPH NODE METASTASES AND RECURRENCE IN EARLY STAGE CERVICAL CANCER

Gynaecologic Oncology, Kidwai Memorial Institute of Oncology, Bangalore, India

Introduction: Cervical cancer is the commonest malignancy in Indian women. Patients with pelvic lymph node metastases don't do well inspite of multimodality treatment.

Aims and objectives: The aim of present study is to study the predictive factors for risk of pelvic lymph node metastases and recurrence in early stage cervical cancer.

Methods: We have retrospectively analyzed medical records of patients with early stage cervical cancer who had undergone surgery at our institute from 1990 to 2010. Predictive factors to assess risk of pelvic lymph node metastases and recurrence were analyzed.

Results: Four hundred and forty one (441) patients had underwent surgery for early stage cervical cancer at our center. Twenty two patients had microscopic invasive carcinoma (Stage IA) and 90 patients were lost of follow up were excluded from the study. Hence 329 patients with (stage IB and IIA) early stage cervical cancer were analyzed. The mean age of the patients who were operated was 48.11±12.04 years (range 18-79 years). Seventy five (75) patients had pelvic lymph node metastases. High grade, > 4 cms of tumor size, stromal invasion are significantly associated with pelvic lymph node metastases. Vaginal cuff involvement and lymphovascular invasion are not associated with increased risk of lymph node metastases. Twenty six patients developed recurrence of which 16 patients developed pelvic recurrence, 5 patient distant visceral metastases and 5 patients paraaortic lymph node metastases.

Conclusion: Tumor size, depth of stromal invasion and high grade were predictive for risk of pelvic lymph node metastases.
**Poster Presentation: Cervical Cancer**

**EVALUATION THE EXPRESSION OF HER_2NEU AND P16 IN EPITHELIAL OVARIAN TUMORS AND ITS CORRELATION WITH CLINICOPATHOLOGIC VARIABLES IN 2000-2005**

S. Kadkhodayan

*Obstetrics & Gynecology, Mashhad University of Medical Sciences, Mashhad, Iran*

**Introduction:** The purpose of this study was to investigate the effect of HER-2/neu and P16 overexpression in epithelial ovarian tumors and their correlation with clinicopathologic parameters.

**Method:** This descriptive and analytic cross-sectional study was done on 50 paraffin blocks of epithelial ovarian cancer acquired from Pathology Department of Ghaem and Omid Hospitals of Mashhad University from 2000-2005. First blocks were cut and suitable slides were prepared, then Immunohistochemical expression pattern of HER-2 and P16 were assessed by an expert pathologist. Variables included: age, stage, histopathologic subtype, expression or not expression of HER-2 and P16 and survey. Characteristic of patient was acquired from Oncology Department of Ghaem Hospital.

Clinical data and results were compared by SPSS software (11.5) and Chi-square, Mann whitney and T student tests were used. Survival analysis was performed by Kaplan-Meier Method.

**Results:** The mean age of patients and its standard deviation was 50.4 13.5 years. Common histologic subtype of tumor was serous adenocarcinoma (64%). P16 overexpression was detected in 32% of tumors that was significantly associated with FIGO stage and total survival (P=0.04, P=0.001).

HER-2 was observed in 28% of tumors. We found no significant influenced of HER-2 overexpression on stage (P=0.70) and total survival rate (P=0.07) but there was correlation with histologic subtypes. (P=0.03)

**Conclusion:** P16 overexpression is a predictive factor on total survival. But there was no correlation with HER-2 expression and clinicopathologic parameters except with histologic subtypes and probably it doesn’t appear to be a prognostic factor on overall survival.
Poster Presentation: Cervical Cancer
THE EFFECT OF EXTRAFASCIAL HYSTERECTOMY AFTER COMPLETION OF EXTERNAL RADIOTHERAPY FOR TREATMENT OF LOCALLY ADVANCED STAGES (IIB-III) OF CERVICAL CANCER
Z. Sarraf, B. Hamedi, S. Hooshmand, A. Mosalaie, M. Robati, M. Mottahan, P. Farhadi
Shiraz University of Medical Sciences, Shiraz, Iran

Aim: This study was designed with the aim of comparing patients treated with External Beam Radiotherapy (EBRT) and Intracavity Brachytherapy (ICBT) with EBRT and extrafascial hysterectomy in locally advanced stages of cervical cancer (IIB-III).

Methods: The present study was designed as a case-control which was performed on the patients with cervical cancer in locally advanced stages (IIB-III) admitted to Namazi and Faghihi hospitals (university hospitals in Shiraz) between 2008-2011. 51 patients were included in two distinct groups: 25 patients were treated with EBRT and Intracavity Brachytherapy (group A). 26 patients were treated with EBRT and extrafascial hysterectomy group B.

Results: In group A, the number of patients with FIGO stage IIb and III were 16 and 9, respectively, and 17 and 9 in group B. The median duration of follow-up was 24 months. There were no significant differences between two groups in metastasis and recurrence rate (P>0.05). 5-years overall survival rate was 54.8% [95% CI: 39-70.9] in group A and in group B was 50.9% [95% CI: 41.5-60] and The LOG-rank test which controls the effect of treatment modalities on overall survival rate, did not show any significant difference between two groups (P = 0.407).

Conclusion: The results of our study showed that the trend of treatment using EBRT along with intracavity brachytherapy, may have the same outcome as the method of using EBRT and extrafascial hysterectomy. Overall, it seems that external beam radiation followed by extrafascial hysterectomy could be a proper substitute for brachytherapy.
Poster Presentation: Cervical Cancer
SPECIFIC HUMAN PAPILLOMA VIRUS GENOTYPES ON THE SEVERITY AND PROGNOSIS OF CERVICAL INTRAEPITHELIAL NEOPLASIA

S.-H. Lee
Obstetrics and Gynecology, Gachon University Gil Hospital, Incheon, Republic of Korea

Introduction: The purpose of this study is to evaluate the effect of specific HPV genotypes for recurrence in cervical intraepithelial neoplasia (CIN) patients.

Materials and methods: We included 446 women with CIN. Medical records were reviewed retrospectively. Severity of CIN was categorized as CIN1/CIN2 versus CIN3+. CIN3+ included CIN3 and carcinoma in situ (CIS). HPV genotypes were categorized as 1) low risk, 2) intermediate risk, 3) high risk/HPV 16 4) high risk/HPV 18 including HPV 18, 45 and 56 and 5) unclassified. The prevalence of genotype in CIN1/CIN2 versus CIN3+ was presented. All the patients were treated with loop electrosurgical excision procedure (LEEP). At follow-up, cervical cytology was taken. Progression free survival was analyzed and 355 women with 3 months or more follow-up were included. Progression was defined as abnormal cytology, including atypical squamous cells (ASC), low-grade squamous intraepithelial lesion (LSIL) and high-grade squamous intraepithelial lesion (HSIL).

Results: CIN3+ was most predominant (67.7%) than CIN1/CIN2 (32.3%). Intermediate risk (p=0.00), high risk/HPV 16 (p=0.00) and high risk/HPV 18 (p=0.00) were significantly more common in women with CIN3+ than CIN1/CIN2. Patients with high risk/HPV 18 showed higher rate of positive margin than the others (p=0.00). Patients with positive margin showed significantly lower progression free survival rate than patients with negative margin (p=0.00).

Conclusion: Infection of high risk/HPV 18 appears to increase the risk of recurrences of abnormal cytology in CIN patients. CIN patients with high risk/HPV 18 needs to be carefully followed-up after LEEP.
Poster Presentation: Cervical Cancer
DNA METHYLATION OF PAX1 AND SOX1 GENES AS A POTENTIAL BIOMARKER FOR DETECTION OF HSIL AND INVASIVE CERVICAL CANCER

N.A. Sharifah¹, A.R. Sayyidi Hamzi¹, A.Z. Hatta², F. Kassim³, Z. Yang Ahmad⁴

¹Pathology, ²Obstetrics & Gynaecology, Universiti Kebangsaan Malaysia Medical Centre, ³Pathology, Hospital Kuala Lumpur, Kuala Lumpur, ⁴DNA Research Centre (M) Sdn. Bhd., Bangi, Malaysia

DNA methylation is an early event in carcinogenesis. Testing for DNA methylation has potential in cervical cancer screening. The aim of this study is to determine the sensitivity and specificity of PAX1 and SOX1 genes as a potential biomarker for detection of preinvasive and invasive cervical cancer (ICC). DNA was extracted from 207 liquid-based cytology (LBC) samples collected from Universiti Kebangsaan Malaysia Medical Centre (UKMMC) and Hospital Kuala Lumpur (HKL), which include normal cytology samples (n=51), Atypical Squamous Cells of Undetermined Significance (ASC-US; n=34), Low Grade Squamous Intraepithelial Lesion (LSIL; n=50), High Grade Squamous Intraepithelial Lesion (HSIL; n=52), Squamous Cell Carcinoma (SCC; n=7) and adenocarcinoma (ADC; n=13). DNA Methylation was determined using real-time methylation-specific polymerase chain reaction (MS-PCR) amplification. Results show a significant difference in the DNA methylation frequency of SOX1 and PAX1 genes in normal, LSIL, HSIL, SCC and ADC (p< 0.01). There was a trend for increasing methylation of these genes with increasing severity of cervical lesions. SOX1 shows high sensitivity (81.5%) and specificity (83.7%) for HSIL, while PAX1 shows high sensitivity and specificity for SCC (94.1%, 98.2%) and ADC (90.9%, 94.6%), respectively. Combination of SOX1 and PAX1 showed high sensitivity (94.1%), specificity (92.7%) and accuracy (93.1%) for detection of ICC. DNA methylation of SOX1 and PAX1 genes confered the best performance for detection of HSIL and ICC. These genes are potential new generation biomarkers for screening of cervical cancer.
Poster Presentation: Cervical Cancer
IS IT POSSIBLE TO OPTIMIZE CONIZATION TO MINIMIZE THE RISK OF RESIDUAL OR RECURRENCE OF CERVICAL INTRAEPITHELIAL NEOPLASIA?

Obstetrics and Gynecology, Kurume University, Kurume, Japan

Aim: The purpose of this study is to identify the predictive factors of residual/recurrent cervical intraepithelial neoplasia (CIN) and to examine how we can optimize conization to minimize residual/recurrent disease.

Methods: Patients who received conization with CIN and a follow-up period of at least 6 months between January 1999 and December 2010 in our institution were reviewed. We analyzed patients' age, parity, preoperative cytological and pathohistological diagnosis, and colposcopic findings as preoperative predictive factors. We also reviewed endocervical margin status, presence of glandular involvement, and the results of endocervical curettage as postoperative predictive factors. Residual/recurrent disease was defined as patients who had CIN confirmed by biopsy, repeat conization, or hysterectomy specimen.

Results: Among 312 patients studied, 34 patients (10.9%) had residual/recurrent disease. Univariate analysis revealed predictive factors of residual/recurrent disease such as suspicious of invasive cancer by preoperative cytologic diagnosis and pathological diagnosis, positive endocervical margin status, positive endocervical curettage, and cone length less than 14 mm. Logistic regression analysis revealed histologically positive endocervical margins, histologically positive endocervical curettage, and cone length less than 14 mm as significant independent predictive factors of residual/recurrent disease. Furthermore, cone length greater than 19 mm was low risk of residual/recurrent disease.

Conclusion: We revealed that endocervical cone margin involvement, histologically positive endocervical curettage specimen and short cone length of less than 14 mm are predictive factors of residual/recurrent CIN. It would be important to optimize conization as cone length greater than 19 mm to avoid residual/recurrent disease.
Poster Presentation: Cervical Cancer
CERVICAL CANCER METASTASIZED TO THE SKIN OF THE ABDOMINAL WALL : A CASE REPORT

W. Wardhana, S.P. Mongan, B.J. Laihad
Obstetrics and Gynecology, University of Sam Ratulangi, Manado, Indonesia

Cervical cancer with metastasis to the skin area is a rare case. The incidence of cervical cancer with metastasis to the skin area is < 2%. We report a case of post radical hysterectomy on stage IIA cervical cancer that spread through the area of abdominal skin. patient presents with a complaint of a fast growing lump around the umbilicus post operative. A CT-scan was performed and resulted in umbilical hernia then a herniotomy was planned. Durante operation a solid mass was found attached to the abdominal subcutaneous tissue, fascia, muscles, that expanded to the peritoneum and attached to the small intestine. An in toto excision of the mass was performed continued with ileal resection and end-to-end anastomosis. The tumor mass was then sent to the histopathology laboratory. Histopathology result showed a tumor similar to the previous histopathology marks of cervical cancer. Immunohistochemical staining also showed a mrophologic pattern consistent with carcinoma. patient is now undergoing chemotherapy treatment with paclitaxel - carboplatin. The prognosis of this patient is dubia.
Poster Presentation: Cervical Cancer

FACTORS THAT CONTRIBUTE POSTPONEMENT IN DIAGNOSING CERVICAL CANCER

D.E. Djamaluddin

Obstetry and Gynecologic, Universitas Sumatera Utara, Medan, Indonesia

Many patients with cervical in Adam Malik Hospital, Medan, North Sumatera came in advanced stage. This is regrettably a drawback in managing and preventing cervical cancer, while cervical cancer is a preventable disease by many effective screening and even a vaccine for high risk HPV infection. The aim of this study was to evaluate contributing factors that postpone cervical cancer diagnosis.

Methods: This research was conducted in gynecologic oncology outpatient clinic Adam Malik Hospital, Medan, North Sumatera, Indonesia. Data were collected through interview with cervical cancer patients using a questionnaire.

Results: We interviewed 72 patients with cervical cancer from September 2012 to February 2013. From 72 patients, the frequency of cervical cancer stage IB1, IB2, IIA1, IIB, IIIA, and IVB are 7 (9.7%), 10 (13.9%), 1 (1.4%), 10 (13.9%), 42 (58.3%), and 2 (2.8%) respectively. The subjective complaint of cervical cancer patients were vaginal discharge (66.3%), vaginal bleeding (83.3%), and postcoital spotting (44.4%) with varying duration. Duration of complaints are mostly 1-3 months before diagnosis for vaginal discharge (25%), vaginal bleeding (31.9%), while postcoital spotting 7-12 months before diagnosis (13.9%). Before diagnosis, patients needed more than a single visit to medical personnel (2 visits 48.6%, 3 visits 36.1%) and only 34 patients (47.2%) received sufficient examination on first visit.

Conclusion: We conclude that higher tolerance of complaints from patients, and insufficient examination by medical personnel contributed in postponement in diagnosing cervical cancer.
Poster Presentation: Cervical Cancer

LAPAROSCOPIC RADICAL HYSTERECTOMY FOR CERVICAL CANCER - EXPERIENCE OF PRIVAT ONCOLOGIC CLINIC IN UKRAINE

S. Baydo, A. Vinnyska, M. Silvestrov, S. Pryndyuk, D. Golub

Zina Memorial Lissod Cancer Hospital, Kiev, Ukraine

Objectives: The role of minimally invasive surgery in the management of gynecologic cancers continues to expand. This work represents our experience in performing totally laparoscopic radical hysterectomy (TLRH) with pelvic lymphodissection (PLND) in patients with cervical cancer. The analysis of morbidity and short postoperative results was conducted.

Materials: In 2010-2012, 121 patients underwent laparoscopic radical operations for gynecologic malignancies. Among them 41 TLRH (Piver III-IV) with PLND were performed for cervical cancer. FIGO stage distribution was: I - in 30 cases (73.3%), II - 5 (12.2%), III - 6 (14.6%). Standard five ports technique was used. For performing PLND harmonic scalpel was applied. In 21 cases ovary preservation with transposition were performed.

Results: The mean age was 43.5 (30-62) years. The average operative time was 216 (120-415) minutes. The median hospital stay was 4.6 (2-12) days. In three patients we performed simultaneous cholecystectomy for cholelithiasis. Histological types included squamous cell carcinoma in 37 (90.2%) patients and adenocarcinoma in 4 (9.8%). The number of lymph nodes harvested was 17.6 (7-40). Postoperative complications were registered in 9 cases (21.9%): seroma - 1, lymphorrhea - 3, stump rapture 1.5 month after operation - 1, vesicovaginal fistula - 3, necrosis of distal part of ureter - 2. No death occurred.

Discussion: Benefits of TLRH for cervical cancer are lower postoperative pain, short hospital stay, better cosmetic results. High level of urinary tract complications is explained by stage of disease and necessity of radical parametrial dissection.
Poster Presentation: Cervical Cancer

PREVENTION OF CANCER CERVIX - AN ALGORITHM FOR EARLY DETECTION OF PRECANCEROUS LESIONS OF CERVIX IN LOW RESOURCE SETTINGS

D.M. Christe\textsuperscript{1,2}, A. Chandrasekar\textsuperscript{3}, P. Meenalocahani\textsuperscript{4}, C. Ponnuraja\textsuperscript{1}, M.P. Kanchana\textsuperscript{1}

\textsuperscript{1}HRRC ICMR, Institute of Obstetrics and Gynecology, \textsuperscript{2}The Tamilnadu Dr Mgr Medical University, \textsuperscript{3}Obstet & Gynec, SRM University, \textsuperscript{4}Obstet & Gynec, Institute of Obstetrics and Gynecology, Chennai, India

Objectives: To develop an algorithm for prevention of cancer cervix by early detection of precancerous lesions of cervix.

Methodology: The records of women attending colposcopy clinic, Women & Children Hospital, IOG over the past two years were studied.

Results: A total of 210 colposcopic records were analysed. The sensitivity of VIA was 78% and VILI 84%. The specificity of Pap smears was 96%. The NPV in colposcopy was 97% and that of HPV tests 58%. The Diagnostic accuracy of Colposcopy was 84%, HPV tests 68% and PAP smears 78% respectively. The average age at diagnosis for CIN was 36.5 years.

Conclusion: It is best to use low cost VIA, VILI tests and PAP SMEARS for initial screening of women. The costlier HPV tests and COLPOSCOPY can be done at cost effective purpose when indicated for early detection of precancerous lesions of cervix and prevention of cancer.
Poster Presentation: Clinical Trials
COMPARING SERUM FOLLICLE-STIMULATING HORMONE (FSH) LEVEL WITH VAGINAL PH IN WOMEN WITH MENOPAUSAL SYMPTOMS

S. Ayati¹, F. Vahidroodsari¹, Z. Yousefi¹, H. Mohaddes Ardabili¹, Z. Mohaddes Ardabili²
¹Ghaem Hospital / Mashhad University of Medical Sciences, Mashhad, ²Tehran University of Medical Science, Tehran, Iran

Objectives: Despite the important implication for women's health and reproduction, very few studies have focused on vaginal PH for menopausal diagnosis. Recent studies have suggested vaginal PH as a simple, noninvasive and inexpensive method for this purpose. The aim of this study is to compare serum FSH level with vaginal PH in menopause.

Methods: This is a cross-sectional, descriptive study, conducted on 103 women (aged 31-95 yrs) with menopausal symptoms who were referred to the Menopausal Clinic at Ghaem Hospital during 2006. Vaginal pH was measured using pH meter strips and serum FSH levels were measured using immunoassay methods. The data was analyzed using SPSS software (version 11.5) and results were evaluated statistically by the Chi-square and Kappa tests. \( p \leq 0.05 \) was considered statistically significant.

Results: According to this study, in the absence of vaginal infection, the average vaginal pH in these 103 menopausal women was 5.33±0.53. If the menopausal hallmark was considered as vaginal pH>4.5, and serum FSH as ≥20 mIU/ml, then the sensitivity of vaginal pH for menopausal diagnosis was 97%. The mean of FSH levels in this population was 80.79 mIU/ml.

Conclusion: Vaginal pH is a simple, accurate, and cost effective tool that can be suggested as a suitable alternative to serum FSH measurement for the diagnosis of menopause.
THE PREVALENCE OF HUMAN PAPILLOMAVIRUS (HPV) INFECTION AMONG KOREAN PREGNANT WOMEN AND TRANSMISSION RATE OF HPVS TO THEIR INFANTS

Cheil General hospital & Women’s Healthcare Center, College of Medicine, Kwandong University, Seoul, Republic of Korea

Objective: We evaluated the rate of human papillomavirus (HPV) infection in pregnant women and their neonates and the risk factors associated with vertical transmission of HPV infection from mothers to neonates.

Design: We performed cervical HPV testing in pregnant women over 36 weeks of gestation and tested for neonate HPV in mouth secretions and in the oral mucosa immediately after delivery. HPV-positive neonates were rechecked 2 months after delivery to identify the persistence of HPV infection. In HPV-positive mothers, the placenta, cord blood, and maternal peripheral blood were also analyzed to confirm whether transplacental HPV infection occurred.

Results: HPV was detected in 72 of 469 pregnant women (15.4%) and in 15 neonates (3.2%). Maternal HPV positivity was associated with primiparity and abnormal cervical cytology. The rate of vertical transmission was 20.8% and all HPV-positive neonates were born from HPV-positive mothers. Vertical transmission was affected by vaginal delivery and multiple HPV infections. Neonates with HPV showed a tendency for higher maternal total HPV copy number than those without HPV, but was found to be statistically insignificant ($p=0.081$). Neonatal HPV infections detected at birth were all cleared 2 months after delivery, and no HPV was detected in placenta, cord blood, or maternal blood.

Conclusions: Vertical transmission of HPV is influenced by vaginal delivery and multiple HPV infections; however, neonatal HPV detection through vertical transmission is thought to be a transient inoculation due to the disappearance of HPV in infants 2 months after birth.
Poster Presentation: Gestational Trophoblastic Neoplasia
RISK FACTORS FOR COMPLETE MOLAR PREGNANCY, A STUDY IN IRAN

M. Kashanian¹, H.R. Baradaran²
¹Obstetrics & Gynecology, ²Epidemiology, Tehran University of Medical Science, Tehran, Iran

Introduction: Complete molar pregnancy is the most common gestational trophoblastic disease. Where its incidence is different in various societies, the evaluation of its risk factors may make the reason for these differences clear.

Objective: The purpose of the present study is to evaluate some of the risk factors of complete molar pregnancy.

Method: A case-control study was performed on 93 cases of complete molar pregnancy (case group), and 257 cases of normal term pregnancy with a live neonate (control group). Then the maternal age, parity and gravidity, blood group and Rh, history of molar pregnancy, consanguinity, history of spontaneous abortion, contraception method, and race (Afgan or Iranian), were compared in the two groups. Results: History of molar pregnancy OR, CI 95%=5.7 (1.2-25.6), spontaneous abortion OR, CI 95%=2.1 (1.7-2.6), maternal age higher than 35 year old OR, CI 95%=2.3 (1.3-3.9) and lower than 20 year old OR, CI 95%=1.6 (1.4-1.9), consanguinity OR, CI 95%=1.3 (1.1-1.5), and Iranian OR, CI 95%= 1.9(1.5-2.4), were found to be risk factors for molar pregnancy.

Conclusion: History of molar pregnancy and spontaneous abortion, maternal age more than 35 and less than 20, consanguinity and race may be the risk factors for molar pregnancy.
Poster Presentation: Gestational Trophoblastic Neoplasia
EVALUATION OF RISK FACTORS AND OUTCOME IN 150 PATIENTS WITH GESTATIONAL TROPHOBLASTIC DISEASE DURING 2001-2011

M. Karimi-Zarchi¹, S.M.-R. Mortazavi-Zade², M. Soltani³

¹Gynecological Oncology, Shahid Sadoughi University of Medical Science, ²Oncology, ³Azad University of Medical Science, Yazd, Iran

Introduction: The goal of this study is determination of risk factors and outcome in patients with trophoblastic disease since 2001-2011 years.

Methods: A descriptive and retrospective study which was conducted on 150 patients with trophoblastic disease. All of their information register in questionnaire and analysis by spss.

Results: the mean of age was 22±65/27 years (15-35) that the most range of age was 20-40 years. The mean of pregnancy age was 10/85 and the most common blood group was O (43.3%). 43.2% of patients were diagnosed in the first pregnancy, 6% have an history of gestational trophoblastic disease in the last pregnancy and 9.4% have a family history of GTN. The most common symptom of gestational trophoblastic disease was vaginal bleeding (90%). 54.6% of patients had had complete mole, 30% incomplete mole, 8.6% invasive mole, 4.6% choriocarcinoma and 2% PSTT. Teca-lutein cyst was existed in 54% of patient and it was relationship with the risk of persistent disease. And the interval of diagnose to treatment had a significant relation to risk of persistent disease. The mean survival rate was 62/0±38/93 month and just 1 patient died due to complication of chemotherapy.

Conclusions: There was a relationship between interval of diagnose and the risk of getting persistent disease. Thus we must diagnose the disease very fast with ultra-sonography in first trimester and reduce the complication of this disease.
Poster Presentation: Gestational Trophoblastic Neoplasia

**EPH-EPHRIN A SYSTEM IS A NEW CANDIDATE TO REGULATE CHORIOCARCINOMA INVASION**

H. Fujiwara¹, Y. Nishioka¹, H. Matsumoto¹, K. Suginami¹, A. Horie¹, H. Tani¹, N. Matsumura¹, T. Baba¹, Y. Sato¹, Y. Araki², I. Konishi¹

¹Dept of GYN/OB, Faculty of Medicine, Kyoto University, Kyoto, ²Institute for Environmental & Gender-specific Medicine, Juntendo University Graduate School of Medicine, Urayasu, Japan

**Background and aims:** The Eph-ephrin system is well known to induce cell migration, regulation of angiogenesis and axonal guidance during embryogenesis. This system was also reported to regulate human extravillous trophoblast invasion. In this study, we examined the possible role of Eph-ephrin system in choriocarcinoma invasion using a human choriocarcinoma-derived cell line JEG-3 cell.

**Material and methods:** By RT-PCR, the mRNA expression profiles of class A Ephs and ephrins on JEG-3 cells were investigated. By proliferation and matrigel invasion assays, the effects of recombinant human Eph A1 (r-Eph A1) and r-ephrin A4 on the proliferation and invasion of JEG-3 cells were examined. By western blot analysis, the induction of phosphorylation of focal adhesion kinase (FAK) in JEG-3 cells by r-ephrin A4 was analyzed. Finally, the alterations of integrin expression on JEG-3 cells in the presence of r-Eph A1 and r-ephrin A4 were investigated by flow cytometry.

**Result:** RT-PCR analysis showed that mRNAs of Eph A1, A2, A4 and ephrin A1, A4 and A5 were expressed on JEG-3 cells. Matrigel invasion assay demonstrated that both r-Eph A1 and r-ephrin A4 promoted invasion of JEG-3 cells without affecting cell proliferation. Flow cytometry showed that integrinα5 expression on JEG-3 cells was increased by r-Eph A1 and r-ephrin A4 stimulation. Western blotting revealed that r-ephrin A4 induced dephosphorylation of FAK in JEG-3 cells.

**Conclusion:** These findings indicate that Eph-ephrin interaction affect LEG-3 cell invasion probably in co-operation with integrins, proposing that Eph-ephrin A system is a new candidate to regulate choriocarcinoma invasion.
Poster Presentation: Gestational Trophoblastic Neoplasia
HYDATIDIFORM MOLE

A. Andrijono
University of Indonesia, Jakarta, Indonesia

Background: Hydatidiform mole is an abnormal pregnancy with complications to the extent that hydatidiform mole should be evacuated. Diagnosis of the mole can be established by histological examination or morphological analysis, and in order to enhance the accuracy of diagnosis additional examinations such as genetic analysis and molecular analysis (p57, GRP78) can be performed.

Material and methods: Literature review

Results: Case control study showed that mole patients had low level of retinol. The risk for developing mole in women suffering from vitamin A deficiency and aged < 24 years is 6.29-fold. If the pregnancy is the first pregnancy, the risk would increase by 7-fold. In that study, a low level of retinol deposit in the liver was found in 73.13% of the cases. The risk for developing persistent mole increased in the uterus size equivalent to the uterus of 20-week pregnancy. Overexpression of Estrogen Receptor in the mole tissue would increase the risk of persistent mole. Persistent mole can be prevented by the administration of chemotherapy of dactinomycin, i.e., the administration of retinol palmitat of 200.000 IU. The management of malignant trophoblastic disease uses FIGO staging which is not different from the Hammond system. The success of MAC (methotrexate, actinomycin, chlorambucil) therapy in high risk-MTD was not different from ME (methotrexate, etoposide), i.e., 90% vs 81.4%.

Summary: Paternal conception, retinol deficiency may be one of the factors in mole etiology. Therapy of Malignant Trophoblastic Disease yielded a success of greater than 90%.
Poster Presentation: Gestational Trophoblastic Neoplasia
THE CLINICAL CHARACTERISTICS AND PROGNOSIS OF POSTPARTUM CHORIOCARCINOMA: 10 CASES REPORT

P. Xiao, R.T. Yin, D. Xie, L.X. Tong, D.Q. Wang

West China Second University Hospital, Sichuan University, Chengdu, China

Objective: To analyze the clinical characteristics and prognosis of postpartum choriocarcinoma.

Method: Retrospectively analyze 10 postpartum choriocarcinoma cases treated at the West China Second University Hospital, Sichuan University between January 2007 and December 2011 and review related papers.

Result: The median age of 10 patients was 31 years old (range 23-47). The interval time between the antecedent pregnancy and the treatment ranged from one month to eighteen years, and the median time was 15.5 months. Three patients have had a history of hydatidiform mole. According to the International Federation of Obstetrics and Gynecology (FIGO) staging and scoring system, 2 patients were diagnosed as FIGO stage I, 7 stage III, and 1 stage IV. Based on the new FIGO 2000 risk factor scoring system, 2 patients were divided into low-risk group and other 8 high-risk group. All the patients received combined chemotherapy, four of whom became drug resistant. Eight of ten patients received chemotherapy only, and two patients combined with surgery. The complete remission (CR) was achieved in 9 patients, and 1 patient whose condition aggravated after stopped treatment on her own resisted to multidrug, and had partial remission (PR), who died from disease half a year after stopped treatment.

Conclusion: Postpartum choriocarcinoma is not a common form of gestational trophoblastic neoplasia, which is associated with high malignance. Drug resistance may be the greatest challenge to enhance cure rate. Early diagnosis, standard treatment may improve the prognosis of these patients.
Poster Presentation: Gestational Trophoblastic Neoplasia
MAC VS ME IN TREATMENT OF MTD BEELEONIE
A. Andrijono
University of Indonesia, Jakarta, Indonesia

Background: Gestational trophoblastic neoplasia (GTN) is a highly chemotherapy sensitive malignancy in gynecology. Several oncology centres, including Cipto Mangunkusumo hospital had been trying other chemotherapy combinations, which are methotrexate and etoposide (ME) and methotrexate, actinomycin, cyclophosphamide atau chlorambucil (MAC).

Methods: Metastatic high risk GTN patients according to Hammond criteria in Cipto Mangunkusumo hospital from January 2000 to December 2010 are included in research subjects. The patients were divided into two groups, the patients w ho received ME and those who received MAC. The remission rate, side effects of leucopenia, thrombocytopenia, and gastrointestinal disorders, such as nausea and vomiting were recorded as the outcome of the treatment. The analytical statistic was using Fisher.

Result: From the periode of 2000-2010, there were 70 GTN patients in Cipto Mangunkusumo hospital who were included in the inclusion criterias, recorded in the medical records. There was only 53 patients who received chemotherapy, 43 patients received ME, and 10 patients received MAC. There was no difference on the remission rate between ME and MAC ( 81.4% vs 90%, p = 1.0). There was no difference in the incident of leucopenia (7% vs 10%, p = 1.0), and gastrointestinal complaints, such as nausea and vomiting (7% vs 10%, p = 1.0). However, patients treated with ME had lower incidence of thrombocytopenia in comparison to those treated with ME (7% vs 20%, p =0.32).

Conclusion: No difference in remission rate and side effects of leucopenia, nausea, and vomiting between ME and MAC group.
Poster Presentation: Gestational Trophoblastic Neoplasia
PRIMARY CERVICAL PLACENTAL SITE TROPHOBLASTIC TUMOR: A RARE CONDITION WITH UNUSUAL PRESENTATION

P.B. Baliga
Pathology, KMC International Center, Manipal University, Manipal, India

Introduction: Placental site trophoblastic tumour (PSTT) is the least common form of gestational trophoblastic disease accounting for only 1-2% of trophoblastic tumors. It needs to be differentiated from other gestational trophoblastic neoplasia (GTN) and non-neoplastic gestational trophoblastic disease as it is important clinically due to differences in their therapeutic approaches. We report a case of placental site trophoblastic tumor occurring in the cervix.

Case report: A 38 year old woman married for 8 years presented with premenstrual spotting since 6 months and one episode of post-coital bleeding. Clinical examination revealed a 5x4 cm mass in the cervix that appeared partly circumscribed, with necrotic and hemorrhagic areas. A biopsy was taken with a clinical differential diagnosis of degenerated fibroid and squamous cell carcinoma. Histopathological examination revealed squamous epithelium overlying sheets of intermediate trophoblasts, exhibiting marked nuclear pleomorphism and high mitosis surrounded by dense hemorrhage. Beta - HCG levels for correlation revealed a value of 1400 IU/ml. A diagnosis of gestational trophoblastic disease was suggested. Hysterectomy was performed and a diagnosis of cervical placental site trophoblastic tumor was given after complete evaluation of the specimen.

Summary: PSTT can be confused with a variety of trophoblastic and non-trophoblastic tumors, but an appreciation of the morphologic features and immunophenotype allows their accurate diagnosis. Clinically, it is prudent for physicians to differentiate PSTT from other forms of GTN because PSTT is less sensitive to chemotherapy, and surgery including hysterectomy plays a major part in optimal treatment.
Poster Presentation: Gestational Trophoblastic Neoplasia
MAC VS ME FOR TREATMENT OF HIGH RISK MALIGNANT TROPHOBLASTIC DISEASE

Andrijono\textsuperscript{1,2}, Beeleonie\textsuperscript{1,2}, L. Nuranna\textsuperscript{1,2}

\textsuperscript{1}Oncology Division, Obstetric And Gynecology Department, Dr Cipto Mangunkusumo Hospital, 
\textsuperscript{2}Faculty of Medicine, University of Indonesia, Jakarta, Indonesia

**Background:** A combined chemotherapy currently recommended by WHO is the combination of EMA-CO. This combined chemotherapy has been shown to give a good outcome in several cancer centres across the world. Several oncology centres, including Cipto Mangunkusumo hospital have been trying other chemotherapy combinations, which are methotrexate and etoposide (ME) and methotrexate, actinomycin, cyclophosphamide atau chlorambucil (MAC).

**Aim:** To evaluate the outcome of ME and MAC in a period of 2000-2010.

**Methods:** Metastatic high risk GTN patients according to Hammond criteria in Cipto Mangunkusumo hospital from January 2000 to December 2010 are included in research subjects. The patients received ME, or MAC. The analytical statistic was using Fisher.

**Result:** From the period of 2000-2010, there were 70 GTN patients in Cipto Mangunkusumo hospital who were included in the inclusion criterias, recorded in the medical records. There was only 53 patients who received chemotherapy, 43 patients received ME, and 10 patients received MAC. There was no difference on the remission rate between ME and MAC (81.4% vs 90%, p = 1.0). There was no difference in the incident of leucopenia (7% vs 10%, p = 1.0), and gastrointestinal complaints, such as nausea and vomiting (7% vs 10%, p = 1.0). However, patients treated with ME had lower incidence of thrombocytopenia in comparison to those treated with ME (7% vs 20%, p = 0.32).

**Conclusion:** No difference in remission rate and side effects of leucopenia, nausea, and vomiting between ME and MAC group.
Poster Presentation: Gestational Trophoblastic Neoplasia
SECONDARY POST PARTUM HAEMORRHAGE; THINK ABOUT THE GESTATIONAL TROPHOBLASTIC NEOPLASIA

L. Wijaya¹, C. Sobari²
¹Obstetric and Gynecology, University of Indonesia, ²Oncology Gynecology, Fatmawati Hospital, Jakarta, Indonesia

Any significant bleeding from genital tract after 24 hours may be defined as secondary post partum hemorrhage. SPPH estimated occurs in 1-2% women. Vary abnormalities could lead SPPH. Gestational throphoblastic disease represents a spectrum of cellular proliferations arising from the vilous throphoblast of the placenta and encompasses 4 clinicopathologic: hydatidiform mole, invasive mole, choriocarcinoma, and placental site throphoblastic tumor (PSTT). The last 3 conditions are associated with more significant clinical sequelae and together comprise the general term gestational trophoblastic neoplasia. Choriocarcinoma has been reported to occur in association with any pregnancy event. Approximately 25% are associates with term or preterm gestation.

We reported SPPH in mrs 23 years old in day 43 post caesarian section. This patient already had been curretage in day 30 after C section in other hospital with no histopatology examination performed. She was complaining heavy vaginal bleeding since 1 month before admission. Formerly, we suspected as GTD, PSTT type. Her HCG level was 500.000. On chest x ray we found metastatic lesions. This patient tried to have second opinion to other hospital. The repeated HCG level was 1.000.000. It confirmed that she had GTD. After got 1 regiment chemotherapy, the HCG level was 5000. We suspect as choriocarcinoma, due to high level og HCG level and no histopathology examination was performed.

GTD in SPPH is quite rare. Complete examination and prompt diagnosis are required to get better outcome. Histopathology examination is required to differentiate the type of the gestational trophoblastic disease.
Poster Presentation: Gestational Trophoblastic Neoplasia
HYDATIDIFORM MOLE CO-EXISTING WITH CERVICAL CANCER: A CASE REPORT

R. Rivany, A.B. Harsono
Obstetrics and Gynecology, Dr. Hasan Sadikin General Hospital, Bandung, Indonesia

Introduction: Hydatidiform mole co-existing with cervical cancer is a rare condition. The incidence of hydatidiform mole in Indonesia is still high and even though screening of cervical cancer is increasing, the incidence of cervical cancer is still high. But combination both disease quite rare.

Case report: A 29 years old woman visited the outpatient clinic with main complaint of vaginal bleeding. She had history of amenorrhea. The uterus was enlarged equal to 16 - 18 weeks of pregnancy on physical examination. Speculum examination was seen an erosive lesion with size 2x1 cm. β-hCG level was 304,314 mIU/ml. Sonography result was hydatidiform mole. She underwent curettage and cervical biopsy. Histopathologic result revealed of hydatidiform mole and non keratinizing squamous cell carcinoma well-differentiated. She was diagnosed with hydatidiform mole and cervical cancer stage Ib1. She later underwent radical trachelectomy. Eight weeks after mole evacuation β-hCG serum titer was 1356 mIU/ml, therefore she was given adjuvant chemotherapy of methotrexate 50 mg.

Discussion: A review of literature shows that there has been only a few cases of a hydatidiform mole co-existing with cervical cancer. One case report described that the hormonal influence of molar pregnancy may contributed to the development of cervical adenocarcinoma. In our case cervical cancer was discovered in early stage, and we believed that the cervical cancer already existed prior to conception. The role of hydatidiform mole affects carcinogenesis of squamous cell carcinoma is unknown.
Poster Presentation: Gestational Trophoblastic Neoplasia
PRIMARY CHORIOCARCINOMA: A MISDIAGNOSIS

C. Chamim¹, W. Ruth¹,²
¹Obstetrics and Gynecology, Fatmawati Hospital, ²Obstetrics and Gynecology, Faculty of Medicine, University of Indonesia, Jakarta, Indonesia

Objective: to know steps on making diagnosis of choriocarcinoma

Method: a case report

Background: Primary choriocarcinoma of ovary could be gestational or non-gestational in origin. The distinction between the two is difficult, but is crucial as the non-gestational type has poor prognosis. We report a case of primary choriocarcinoma in a 23-year-old woman who complained of abdominal bloating and initially diagnosed as a uterine myoma and endometriosis cyst but intraoperatively mass was found with irregular shape, fragile and bleed easily derived from right ovary. The histopathological examination result of the mass was a choriocarcinoma. Further discussion is necessary to point out several factors which play important role to determine type of choriocarcinoma. We hope this discussion would prevent misdiagnosis on similar cases in the future.

Conclusion: Choriocarcinoma can be misdiagnosed. Therefore knowing the proper steps on making diagnosis of choriocarcinoma is very crucial.
Poster Presentation: Gestational Trophoblastic Neoplasia
POST MENOPAUSAL INVASIVE HYDITIDIFORM MOLE: A CASE REPORT

V. Silvana, CHAMIM
Obstetric and Gynecology Department, Fatmawati General Hospital, University of Indonesia, Jakarta, Indonesia

Background: Gestational trophoblastic disease (GTD) represents a spectrum of lesions characterized by an abnormal proliferation of trophoblast, including complete and partial hydatidiform mole, invasive hydatidiform mole, choriocarcinoma, placental site trophoblastic tumour. Recognition of GTD becomes more difficult in women over 50 years of age, as menopause is expected and the possibility of pregnancy is often overlooked. In the world literature, it is well established that the occurrence of GTD in women older than 50 years is rare. Perimenopausal patients in this age group may develop benign or malignant trophoblastic disease, whereas in postmenopausal women, GTD is usually malignant.

Case: We report the case of a 54-year-old postmenopausal woman with invasive hydatidiform mole. The patient was admitted to Obstetric Gynecology Emergency Ward, Fatmawati General Hospital with vaginal bleeding since 10 days. Gynecological examination revealed enlarged uterus with vaginal spotting. Ultrasound finding revealed enlargement of the uterus with snow storm appearance. Serum beta-HCG was found more than 350,000 mIU/ml. The patient underwent total abdominal hysterectomy and bilateral salpingo-oophorectomy. The serum level of beta-HCG has decreased around 14,000 mIU/ml after surgery. The resected uterus contained an endometrial, cystic, grapelike tumor. Microscopic examination demonstrated edematous, hydropic degeneration of the chorionic villi with trophoblastic cell proliferation, and myometrial invasion of the villi consistent with an invasive hydatidiform mole.

Conclusion: Although gestational trophoblastic disease generally occurs in women of reproductive age and is extremely rare in postmenopausal women, when evaluating patients with postmenopausal vaginal bleeding, the diagnosis of gestational trophoblastic disease must always be considered.
Poster Presentation: Imaging / Staging
MALIGNANT ALIMENTS OF FEMALE GENTILE ON THE TERRITORY THE GROCKA MUNICIPALITY FOR THE PERIOD 2002-2011: GOOD PREVENTIVE MEASURES?
I. Pekic
The Medical Institution of the Grocka Municipaliti, Belgrade, Serbia

With number of 1400 new cases of Ca PVU, Serbia takes the first place in Europe. About 500 women die of this illness per a year.

The purpose of the work: The purpose of the work is the establishment of the total number and structure of the malignant ailments, carried out on women’s population living in the Municipality of Grocka for the ten years period (2002-2011).

Methods and results: The documentation of the gynaecological departament with the Medical Institution of the Grocka municipality.

TABLE
Group tumors C00-D48 274 23 13 29 38 31 30 26 37 30 16
Neo.mal.mammae C 50 207 19 9 21 31 21 21 25 27 21 12
Neo.mal.vulvae C 51 6 1 1 1 1 2
Neo.mal.cervicis uteri C53 61 5 3 7 6 9 9 1 8 9 4
Neo.mal.corporis uteri C54 49 3 4 6 4 6 9 5 7 4
Neo.mal.ovarii C56 37 2 2 3 5 3 3 9 2 3 5

Discussion: PRIMARY PREVENTION of the malignant ailments includes elimina
tions of bed behavior and introduction of positive behavior.

References:
1. A. Kurijak I co”Gynaecology and Perinatology”
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Oral presentation
Phon. 00381 641431059
Poster Presentation: Imaging / Staging
DEEP VEIN THROMBOSIS IN HIGH RISK AND LOW RISK GYNECOLOGIC TUMOR PATIENT IN ADAM MALIK HOSPITAL MEDAN

M.R. Yaznil\textsuperscript{1}, M.F. Sahil\textsuperscript{1}, N.D. Lubis\textsuperscript{2}

\textsuperscript{1}Obstetrics and Gynecology, \textsuperscript{2}Radiology, University of Sumatera Utara, Medan, Indonesia

Venous thromboembolism is one of the major complication in gynecologic malignancy. But in practice, policy to prevent venous thromboembolism is still doubtfully applied especially in Adam Malik Hospital, Medan.

Aim of this study are to acquired the prevalence of deep vein thrombosis in gynecologic tumor patient stratified by high risk and low risk for DVT using b-mode image compression ultrasound.

This is an analytic observational study using cross sectional design. This research were performed in Adam Malik Hospital from May to August 2010. All gynecologic tumor patient were stratified using modified Venous Thromboembolism Risk Factor Assessment from Joseph A.Caprini and classified to 2 stratification (low and high risk) and underwent compression ultrasound in femoral and popliteal vein.

From January to June 2010 we had 206 subject. The proportion of DVT in high risk patient was 26.5\%, 3.4\% in low risk patient with a statistically significant difference (p=0.000, OR 10.3, 95\% CI). Proportion of DVT in malignant gynecologic tumor was 24.7\% and 3.7\% in benign gynecologic tumor with a statistically significant difference (p=0.000, OR 8.6, 95\% CI). The prevalence of DVT in high risk patient was 149 per 1000 population at risk, and in low risk patient was 14 per 1000 population at risk.

As a conclusion the prevalence of DVT in high risk and low risk gynecologic tumor patient was 149 per 1000 and 14 per 1000 population at risk respectively and warrant a strict policy in preventing venous thromboembolism in gynecologic tumor.
Poster Presentation: Imaging / Staging
CLINICAL EXAMINATION VERSUS MAGNETIC RESONANCE IMAGING FOR STAGING OF CERVICAL CARCINOMA: SYSTEMATIC REVIEW AND META-ANALYSIS

M.G. Thomeer¹, C.S. Gerestein², S. Spronk³, E. Ham van der¹, M. Hunink¹,³, H.C. van Doorn⁴

¹Department of Radiology, ²Department of Gynaecology, ³Department of Epidemiology, ⁴Gynaecology and Gynaecological Oncology, Erasmus MC, Rotterdam, The Netherlands

Objectives: To review the literature on the diagnostic performance of clinical examination and Magnetic Resonance Imaging (MRI) in detecting parametrial invasion and advanced stage disease (FIGO stage ≥ IIB) in patients with cervical carcinoma.

Methods: Reports of studies were searched using the MEDLINE, EMBASE and Cochrane databases. Two observers reported on data relevant for analysis and methodological quality using the QUADAS scoring system. Publication bias was analysed using Deeks funnel plots. Covariates were added to the model to study the influence on the summary results of the technical and methodological aspects of the clinical examination and MRI.

Results: In total, 3254 patients were included. Partial verification bias, was often encountered. Pooled sensitivity was 40 % (95 % CI:25-58) for the evaluation of parametrial invasion with clinical examination and 84 % (95 % CI:76-90) with MRI, 53 % (95 % CI:41-66) for the evaluation of advanced disease with clinical examination, and 79 % (95% CI: 64-89) with MRI. Pooled specificities were comparable between clinical examination and MRI. Different technical aspects of MRI influenced the summary results.

Conclusions: MRI is significantly better than clinical examination in ruling out parametrial invasion and advanced disease in patients with cervical carcinoma.
Poster Presentation: Imaging / Staging
THE CLINICAL PROFILE OF PET-CT OF UTERINE ENDOMETRIAL CANCER AT A SINGLE INSTITUTION

E. Song, N. Yun, J. Lee, J. Park
Obstetrics and Gynecology, Inha University Hospital, Incheon, Republic of Korea

Aim: To summary the clinical experience of PET-CT for endometrial endometrioid carcinoma (EEC) at a single institution

Methods: Between 2004 to 2011, medical records were reviewed retrospectively.

Results: 51 patients had undergone 82 PET-CT for ECC. 12 were taken before surgery and 70 done after. The age before surgery was 52.8 years old. The stages were 9 at FIGO stage IA, 1 at IB, 1 at III, and 1 at IV. That of the cellular differentiation was 7 at grade 1, 1 for grade 2 and 4 for grade 3. The results of PET-CT were 1 normal, 1 intermediate and 10 abnormal. PPV was 83% for EEC before surgery. There were 42 patients after surgery. The results of PET-CT were 19 normal and 23 abnormal. The distribution of the stage was 8 at FIGO stage IA, 3 at stage IB, 6 at stage II, 5 at stage III, and 1 at stage IV. That of the cellular differentiation was 7 at grade 1, 10 for grade 2, 6 for grade 3. 8 had undergone further study and 15 had not. Among 8 patients, 7 had malignant evidence at breast, liver, lung and other sites. The PPV was 88% for EEC after surgery.

Conclusion: The PPV was 83% before surgery, and that was 88% after it. PET-CT may be the important tool to detect ECC before surgery and to find recurrence after it.
Poster Presentation: Nursing
CONDOM USE AND PERCEPTION THE CHALLENGES TO HIV/AIDS PREVENTION AMONG THE ELDERLY IN NIGERIA

K. Odor, U. Eziefula, N. Iwuji

HIV/AIDS is a growing public health challenge in Africa; the pandemic affects every stratum of society including the elderly. To combat HIV/AIDS infection, condom use is an effective intervention to interrupt its transmission. However, perceptions about condom usefulness by the elderly have been limited due to inadequate information. Moreover, the sexual practices that this sub-group engages are relatively unknown. This study therefore examined condom use and perception the challenges to HIV/AIDS prevention among the elderly in Nigeria.

The study was cross-sectional in design. A multi-stage, stratified, random sampling technique was adopted to select 400 survey respondents aged 65 years and above in Ibadan-Nigeria. A pretested questionnaire developed from the results of 10 focus group discussions (FGD) was used to collect information. FGD and questionnaire data were analyzed thematically and using descriptive/chi-square statistics respectively.

Twenty-five percent of the participants who were sexually active in the one year preceding the study had extramarital sex. Among the subgroup that had extramarital-sex, few (6.8%) used condom. More males (5.3%) than females (1.5%) used condom in last extramarital-sex (p< 0.5). Low usage was attributed to not-necessary (34.5%) and not-for-the-elderly (50.0%). Adherence to non-condom use was due to confidence in traditional herbs perceived to prevent HIV/AIDS infection. Similarly, FGD participants were unanimous in their opinion that sperm is life therefore should not be disposed of in rubber sheaths.

Risky sexual engagement among the elderly is distraction to HIV/AIDS prevention, because condom-use is unpopular among this population. Therefore safe-sex practices are needed to address misconception.
Poster Presentation: Nursing
THE EFFECT OF ANXIETY REDUCTION PROGRAM ON PHYSIOLOGIC INDICES AND CORTISOL LEVEL OF SERUM: A SINGLE-BLINDED RANDOMIZED CLINICAL TRIAL STUDY

M.A. Soleimani¹, N. Bahrami²

¹Faculty of Nursing and Midwifery, Tehran University of Medical Sciences, Tehran, ²Faculty of Nursing and Midwifery, Qazvin University of Medical Sciences, Qazvin, Iran

Background: Patients awaiting surgery typically experience significant physical and psychological stress. The Vital Signs and serum cortisol level are altered in response to anxiety. The aim of this study was to assess the effect of preoperative education on physiologic indices and cortisol level of patients undergoing women's elective surgeries.

Methods: 60 patients undergoing women's elective surgeries were randomly assigned to control or experimental group. In the intervention group, the researcher assessed patients based on nursing process after admission. If there was any of nursing diagnoses in them including anxiety, lack of awareness, fear, necessary training was provided to patients. In Control group, Patients received only routine care. For data collection a questionnaire was used containing demographic characteristics, vital signs and serum cortisol level.

Results: Two groups were homogeneous in age (P=0.2), marital status (P=0.5), education (P=0.1), employment status (P=0.13) and admission history (P=0.3). There were no significant differences between vital signs in experimental and control groups at admission. Although, the average of patients’ vital signs before surgery was increased in both groups compared with their baseline vital signs, this increase in the experimental group was less than the control group. Level of serum cortisol (at 8 Am) in experimental group was less than the control group (P< 0.001).

Conclusion: The results of this study showed that the education based on the nursing process as a non pharmaceutical and effective method can be recommended for to minimize changes in vital signs and decrease of serum cortisol level in patients undergoing women’s elective surgeries.
Poster Presentation: Nursing
GYNECOLOGIC AND BREAST CANCER PEER MENTORS: INTERPRETING PROGRAM IMPACT

S. Singh-Carlson¹, C. Gotz²

¹California State University Long Beach, ²MPH, California State University Long Beach, Long Beach, CA, USA

The purpose of this study was to evaluate the existing Peer Mentor (PM) women's Cancer Survivors Programs at an urban Southern California Cancer Institute.

Qualitative methodology used in the first phase utilized two semi-structured focus group interviews; GC (n=4) and BC (n=10). Thematic and content analysis was used to identify recurrent themes and content of the educational material. Constant comparison of the incoming data provided themes which were used to develop an eight question, on-line survey (second phase) that was instrumental in eliciting data that was reflective of mentors' experiences. 100 surveys were sent (n=100) with 45 responses received.

Thematic analysis revealed 15 themes and four major categories. Differences in perceptions between the groups may be explained by the nature of gynecologic cancer disease process. There is a high rate of recurrence especially with ovarian and less availability of dedicated resources for GC in comparison to BC. As a result of the differences two survey instruments were developed and sent to the remaining PMs from the group.

Oncology nurses who are in direct contact with women going through cancer related treatments are in a position to refer patients to the PM programs. This information added to the existing knowledge on survivorship care that addresses navigation issues that people need. Data from this research will provide researchers with an understanding that they may need to examine similar factors as they conduct research with differing ethnicities.
Poster Presentation: Nursing
AN AUDIT EVALUATING DOCUMENTATION OF HEALTH PROFESSIONAL DISCUSSIONS ABOUT SEXUAL CONSEQUENCES OF TREATMENT WITH GYNAECOLOGY PATIENTS AT A CANCER CENTRE

C. Cole

WA Cancer and Palliative Care Network, Perth, WA, Australia

Background and aims: A patient forum at the centre met to discuss how treatment-induced changes in sexuality and intimacy were addressed by staff during and after treatment. The Department of Health (England) National Cancer Survivorship Initiative (NCSI) Vision document (2010) recommends that survivorship issues should be discussed by a gynaecology team member, with documentation in medical records. This should occur during the initial consultation of the patient's illness trajectory and prior to the patient making potentially life altering decisions.

The audit aim was to ascertain the proportion of medical records in which documentation of discussion about treatment-induced sexual concerns or difficulties occurred and to identify which member(s) of the clinical team discussed these issues with patients. Discussion topics included in the audit were: impact on relationships, fertility, vaginal changes, menopause and associated management strategies.

Method: A retrospective audit of 238 gynaecology patient electronic records of women seen at the cancer centre was undertaken between Oct-Dec 2009. Records for women who had received treatment for a gynaecological malignancy in the previous two years were reviewed.

Results: Sexuality and intimacy was discussed in 145/238 (61%) of medical consultations, of which 48/238 (20%) of discussions were led by a Specialist Registrar and 28/238 (12%) a consultant Gynae-oncologist. Recorded topics included: Fertility 37/145 (25%) Relationships 4/145 (2.75%) Vaginal changes 63/144 (43.75%) and Menopause 108/145 (74%)

Conclusion: Audit data suggests achieving professional consensus and implementing minimum standards regarding the management of treatment-induced sexual concerns throughout the patient's illness/treatment trajectory may improve care delivery.
Poster Presentation: Nursing
CERVICAL CANCER RISK FACTORS AND SCREENING AWARENESS AMONG NURSES WORKING IN GOVERNMENT SECTORS IN EASTERN REGION OF NEPAL

T. Shah, N. Pokharel, S.P. Shah, M. Rai

Community Health Nursing, B.P. Koirala Institute of Health Sciences, Dharan, Nepal

Background: Cervical cancer is the most common causes of cancer mortality among women in developing countries, despite the fact that it is largely preventable disease.

Aim: To assess the level of awareness regarding risk factors and screening modalities of cervical cancer among the nurses.

Methods: A cross-sectional study design was adopted. Sampling frame was created by making 3 strata on the basis geographical distribution, from each stratum 33 to 40% districts was drawn then all nurses working in selected district were enrolled.

Results: Mean age of the research participants was 33.2 years. Mean work experiences was 10.7 years with standard deviation 9.6 years. Almost half (49.5%) of them only had adequate knowledge on general information, risk factors and screening modalities of cervical cancer. Of the 14 risk factor scores; the mean obtained score was 3.6 with standard deviation 1.3. Eighteen percent of them told that they don't have any idea about preventive measures of it. Only 3% respondents were received short-term training in cancer.

Geographical distribution of the districts, level of education, designation and training institutions have shown statistical association with awareness of cervical cancer.

Conclusion: Nurses working in government sector in eastern region of Nepal have low level of awareness (knowledge and practice) on risk factors and screening modalities of cervical cancer.
**Poster Presentation: Ovarian Cancer**

**OVARIAN MASSES IN CHILDREN AND ADOLESCENTS IN CHINA: ANALYSIS OF 203 CASES**

**H. Liu, G. Shi**

*West China Second University Hospital, Sichuan University, Chengdu, China*

**Objective:** The true incidence of ovarian tumors in children is unknown. Few studies beyond case reports and case series have been published concerning pediatric ovarian tumors. Herein we review a large number of ovarian tumor cases.

**Methods:** The charts of 203 patients who presented with adnexal masses were reviewed.

**Results:** The patient's ranged in age from 2 to 18 years (mean = 15.6 years), with 30 being premenarchal (14.8%). The main complaint was abdominal pain or abdominal distension in 117 patients (57.7%). A high AFP level in a pre-pubic girl with an adnexal mass is indicative of a malignant ovarian tumor. The 214 adnexal masses (11 patients had bilateral cysts) consisted of benign tumorous oophoropathy (107 masses, 50.0%), borderline and malignant tumors (29 masses, 13.6%), and nontumorous oophoropathy (78 masses, 36.5%). Of the 136 neoplasia, germ cell tumors accounted for 71.5%. Surgical intervention was performed in 98.5% of cases. There were decreased blood loss, surgery duration and days of hospitalization with the laparoscopic procedure when compared with an open surgery.

**Conclusions:** The incidence of ovarian tumor increases with age, especially in patients older than 14 years. Abdominal pain is the most common complaint in young patients with adnexal masses. AFP is the most useful diagnostic biomarker of ovarian tumors in young females. Laparoscopic resection of ovarian cysts is a safe operative approach.
Poster Presentation: Ovarian Cancer
EVALUATION OF CA125 FOR DIAGNOSIS OF MALIGNANCY IN PELVIC MASS AND OUTCOME

M. Karimi-Zarchi1, R. Dehghani-Firoozabadi1, M.-A. Ahmadpur-Baghdadabad1, S. Taghipur-Zahir1, S. Teimoori2, Obstet and Gynecology

1Shahid Sadoughi University of Medical Science, 2Islamic Azad University, Yazd Branch, Yazd, Iran

Objective: To determine the relationship between the level of tumor marker CA125, tumor size, histopathological reports, metastases and benign or malignancy status.

Material and method: A retrospective cross-sectional descriptive study gotten from patients who were visited the Shahid Sadoughi Hospital from 1386 to 1389 because of pelvic masse. Data were analyzed using software SPSS v.14

Result: Epithelial cancer included 38 patients (18.7% of patients), border line cancer included 9 patients (4.4% of patients), rope sex and mixed germ cell tumor each containing one patient (0.5% of patients), masses of benign uterine 71 (35% of patients), and benign ovarian masses with para-ovarian cysts also containing of 71 patients (35% of patients), malignant uterine tumors included 7 cases (3.5% of patients) and masses of metastasis to the ovary included 5 cases (2.4% of patients).

Statistical analysis, based on Fisher’s Exact Test, showed that there is no significant relationship between CA-125 level and tumor size (P value = 0.883).Statistical analysis, based on Fisher’s Exact Test, showed no significant relationship between CA-125 levels and the characteristics of ultrasound (P value = 0.297).

CA-125 levels demonstrated a significant association with post operation complications (P value = 0.001).

Conclusion: the level of CA 125 check only in patients with pelvic masses who tend to have a maintenance drug therapy and ultrasound images show a benign mass but greater than 7 cm and the patient is a candidate for surgery.
Poster Presentation: Ovarian Cancer
COMPARATION OF SERUM LEVEL HSP70 AND SERUM MARKER MEASUREMENT CA125 IN EPITHELIAL OVARIAN CANCER

M. Hasanzadeh Mofrad¹, Z. Yosefi², H. Ayatollahie², M. Afzal Agaee², Z. Kasemean²

¹Gynecology Oncology Department, Gynecologic Health Research Center, Mashhad University of Medical Sciences, ²Mashhad University of Medical Sciences, Mashhad, Iran

Introduction: Ovarian cancer is one of the most common gynecological malignancies with high mortality rate. This high mortality rate may be due to delay in diagnosis. Using tumor-specific markers that are sensitive in the early stages of the cancer is very effective to improve results of therapy.

Objectives & (hypothesis OR questions): In this study, we have evaluated the diagnostic value of HSP70 and CA125 serum levels in patients with epithelial ovarian tumors.

Materials and methods: 37 patients with ovarian cancer and 35 patients with benign ovarian masses were enrolled in this study. Patients with benign ovarian masses underwent surgery of cystectomy or oophorectomy. Finally, HSP70 and CA125 levels before surgery were compared between the groups.

Results: The average age in patients with ovarian cancer was 49.62 ± 15.28 years, in the benign ovarian masses group it was 37.28 ± 13.81 years. The average level of CA125 and HSP70 in ovarian cancer patients was 672.95 ± 470.55, 0.859 ± 0.461, respectively. The average level of CA 125 and HSP70 in epithelial ovarian cancer was significantly higher than the other group (0.025)(0.001).

Conclusion: HSP70 can be useful for early detection of epithelial ovarian cancer patients especially when used besides CA125.
Poster Presentation: Ovarian Cancer
PROGNOSTIC IMPORTANCE OF CA125 NORMALIZATION IN ADVANCE STAGE OVARIAN CANCER PATIENTS TREATED WITH NEOADJUVANT CHEMOTHERAPY

T. Le, N. Al Mutairi
University of Ottawa, Ottawa, ON, Canada

Objectives: The prognostic significance of CA125 normalization has been poorly studied in patients treated with neoadjuvant chemotherapy. We studied the impact of CA125 normalization pattern before interval surgical debulking and at the end of primary treatment on survival outcomes.

Method: All epithelial ovarian cancer patients treated with neoadjuvant chemotherapy were retrospectively reviewed from 2007-9. Patients' demographics, disease related variables and survival outcome data were abstracted from electronic medical records. Cox regression was used to model overall survival adjusting for age, residual disease status, tumour grade, use of intraperitoneal chemotherapy after interval surgery, and CA125 normalization during therapy. All p values less than 0.05 were considered to be statistical significant.

Results: 57 patients with complete data were identified. Median age was 63 yo. All had stage 3/4 disease and serous histology. Optimal interval surgical debulking was achieved in 57%. CA125 normalized in 28% patients after 3 cycles of chemotherapy and 83% after interval surgery followed by 3 additional cycles of chemotherapy. Progression was observed in 85% of patients with a median follow up of 28.6 months. Non normalization of CA125 before interval surgery is an independent adverse prognostic factor on OS (HR 3.69 95%CI 1.08-12.67, p=0.038) . Non normalization of CA125 at the end of primary therapy is also an independent adverse prognostic factor on OS (HR 3.12 95%CI 1.11-8.83, p=0.032) . Use of intraperitoneal chemotherapy was not significantly associated with overall survival (p=0.53).

Conclusion: Non-normalization of CA125 during neoadjuvant chemotherapy is associated with worsened overall survival.
Poster Presentation: Ovarian Cancer
LOWER EXTREMITY EDEMA IN PATIENTS WITH EARLY OVARIAN CANCER

J.S. Lee, S.S. Seo, S. Kang, S.Y. Park, M.C. Lim

National Cancer Center, Goyang-si, Republic of Korea

Background: The objective of this study is to investigate clinical manifestations of lower extremity edema (LEE) in early ovarian cancer.

Methods: Medical records and/or survey for LEE and Gynecologic Cancer Lymphedema Questionnaire (GCLQ) were evaluated in 71 patients with stage I and II ovarian cancer.

Results: Patients had a median age of 46 years. Twenty-nine patients (40.8%) had past and/or current patient-reported LEE: past and current LEE in 13 (44.8%) and 16 (55.2%) patients, respectively. Symptoms reported on the GCLQ at > 20% were numbness, firmness/tightness, swelling, heaviness, limited movement of knee, and aching. GCLQ total symptoms score was significantly higher in patients with current LEE. Most of the LEE (86.2%, 25/29) developed within 12 months after surgery and LEE lasted more than 6 months in approximately two thirds of the patients (62.1%, 18/29). Only half of the patients (52.1%) responded that they know about lymphedema: 86.2 vs. 28.6% in patients with LEE and no LEE, respectively.

Conclusion: Although a significant proportion of patients with ovarian cancer have LEE after surgery, most of them are not aware of lymphedema until they actually develop. Education and trials for LEE and lymphedema are urgently needed in patients with ovarian cancer.
Poster Presentation: Ovarian Cancer
EVALUATION OF RISK OF MALIGNANCY INDEX (RMI) FOR DIAGNOSIS OF MALIGNANCY IN PELVIC MASSES
M. Karimi-Zarchi¹, R. Nafisi-Moghadam¹, S. Peimani²
¹Shahid Sadoughi University of Medical Science, ²Azad University of Medical Science, Yazd, Iran

Purpose: The ability of the four indices RMI (1, 2, 3 and 4) for distinguishing malignant from benign masses in ultrasound and CT scan are.

Methods: This study, with the filling of the questionnaire’s 200 patients with pelvic mass who underwent surgery was performed. In this study, the ability of four RMI separately in ultrasound and CT scan, using the cut-off points optimized Charts ROC sensitivity, specificity, positive and negative predictive value and accuracy were evaluated Then p-value calculated with the final pathology of the masses, are measured.

Results: In this study, the calculated p-value in the four RMI The sonographic findings were calculated for this analysis that this relationship was significant ultrasound,That RMI2 due to the higher level of accuracy had diagnostic performance higher.. RMI 2 at the cut-off point 90, the following chart, 86.7, sensitivity of 79.36 specificity 78.95, positive predictive value 58.44, negative predictive value 90.08 and accuracy of 78.93 and a p-value 0.004 has been calculated, but according to the values of p-value CT scan in four of the RMI, this relationship is not meaningful.

Conclusion: From this study it can be understood that the differentiation of malignant from benign masses using RMI, which uses ultrasound findings are reliable. RMI 2 reliable technique that was considered other RMI can be used in women’s clinics And the doctor can easily identify patients who have a high likelihood of malignancy And thus reducing waste of time, increased patient survival.
Poster Presentation: Ovarian Cancer
INTRAPERITONEAL HYPERThERMIC CHEMOTHERAPY: WHICH DRUGS AND CHARACTERISTICS?

J. Giuliani¹, M. Marzola²

¹Palliative Care Unit, Mater Salutis Hospital - U.L.S.S. 21, Legnago; ²Clinical Oncology Unit, St. Anna University-Hospital, Ferrara, Italy

Peritoneal carcinomatosis (PC) is one of the most common causes of incurability of intra-abdominal cancers. The combination of cyto-reductive surgery (CRS) with intraperitoneal chemohyperthermia (IPCH) has achieved promising results in terms of survival in a selected group of patients with PC from colorectal cancer, ovarian cancer, gastric cancer, peritoneal mesothelioma and pseudomyxoma peritonei. The aim of this paper is to focus the attention on drugs used during IPCH (all these aspects are summarized on Table 1,2). To date there are no standard procedures to which refer for the selection of chemotherapeutic drugs, as well as for the dosage or their possible combination. Implementation of perfusion and times of administration of different drugs are also considered. The kind of solution employed for the perfusion (isotonic saline and of dextrose vs. isotonic solution of high molecular weight vs. hypotonic solution vs. hypertonic solution) has an important role too. As to the diatribe not yet solved abdomen (Coliseum technique) vs. closed abdomen, currently the superiority of one technique on respect the other has not been demonstrated. The IPCH (considered as an integral part of multimodal therapy) represents a potentially efficacious approach by offering promising results, especially in the area where traditional therapy are still ineffective. The improvements in diagnostic techniques and methods of patient selection, the creation of multidisciplinary teams and the experience of the surgical team could be key factors to reduce the heterogeneity of approaches, in spite of significant and continuous improvements in survival.

<table>
<thead>
<tr>
<th>Malignancies</th>
<th>Drugs</th>
<th>Temperatur e (°C)</th>
<th>Tim e</th>
<th>Techniqu e</th>
<th>Volum e of solution</th>
<th>Kind of solution</th>
<th>Averag e flow</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peritoneal carcinomatosis of colorectal cancer</td>
<td>mitomycin C to the perfusate at a dose of 17.5 mg/m2 followed by 8.8 mg/m2 every 30 minutes</td>
<td>41 - 42</td>
<td>90 min</td>
<td>open abdomen</td>
<td>≥ 3 L</td>
<td>1-2 l/min</td>
<td>Verwaal VJ, et al. J Clin Oncol 2003;21:3737-43.</td>
<td></td>
</tr>
<tr>
<td>Peritoneal carcinomatosis of colorectal cancer</td>
<td>oxaliplatin 460 mg/m2 in 2 l/m2 or oxaliplatin 360 mg/m2 + irinotecan 360 mg/m2 in 2 l/m2</td>
<td>43 (42 - 44)</td>
<td>30 min</td>
<td>open abdomen</td>
<td>N/A</td>
<td>5% solution of dextrose</td>
<td>Elias D, et al. Ann Surg 2008; 247:445-50.</td>
<td></td>
</tr>
<tr>
<td>Peritoneal mesothelioma</td>
<td>cisplatin 25 mg/m2/l</td>
<td>42.5</td>
<td>N/A</td>
<td>closed abdomen</td>
<td>3.5 l/m2</td>
<td>N/A</td>
<td>600 ml/min</td>
<td>Deraco M, et al. Ann Surg</td>
</tr>
<tr>
<td>Malignancies</td>
<td>Drugs</td>
<td>Temperature (°C)</td>
<td>Time</td>
<td>Technique</td>
<td>Volume of Solution</td>
<td>Kind of Solution</td>
<td>Average Flow</td>
<td>References</td>
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<tr>
<td></td>
<td>cisplatin 25 mg/m2/l + mitomycin C 3.3</td>
<td>42.5</td>
<td>60 or 90 min</td>
<td>closed abdomen</td>
<td>4-6 l</td>
<td>saline</td>
<td>600 ml/min</td>
<td>Deraco M, et al. J Surg Oncol 2003;83:147-53.</td>
</tr>
<tr>
<td>Advanced ovarian cancer</td>
<td>carboplatin 350 mg/m2 + interferon-alpha 5,000,000 IU/m2</td>
<td>43-44</td>
<td>90 min</td>
<td>open abdomen</td>
<td>6 l</td>
<td>5% solution of Ringer lactate</td>
<td>N/A</td>
<td>Sugarbaker PH, et al. Eur J Surg Oncol 2006;32:686-91</td>
</tr>
<tr>
<td></td>
<td>cisplatin 75 mg/m2 or mitoxantrone 15 mg/m2</td>
<td>41.5</td>
<td>90 min</td>
<td>open abdomen</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>Piso P, et al. World J Surg Oncol 2004;2:21.</td>
</tr>
</tbody>
</table>

[Table 1. Chemotherapeutic drugs for IPCH (Part I)]
<table>
<thead>
<tr>
<th>Condition</th>
<th>Chemotherapeutic Drugs</th>
<th>Dose (mg/m²/l)</th>
<th>Time (min)</th>
<th>Route</th>
<th>Solution</th>
<th>Volume (l)</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced ovarian cancer</td>
<td>Paclitaxel 175 mg/m² or Carboplatin 350 mg/m²</td>
<td>43-44</td>
<td>90</td>
<td>Open</td>
<td>6 l</td>
<td>N/A</td>
<td>Bae JH et al. Gynecol Oncol 2006;106:193-200.</td>
</tr>
<tr>
<td>Peritoneal carcinomatosis of colorectal cancer and pseudomyxoma peritonei</td>
<td>Oxaliplatin 360 mg/m² or Irinotecan 360 mg/m² in 2 l/m²</td>
<td>43</td>
<td>30</td>
<td>Open</td>
<td>2 l/m²</td>
<td>2 l/min</td>
<td>Elias D et al. Ann Surg Oncol 2007;14:1818-24.</td>
</tr>
<tr>
<td>Pseudomyxoma Peritonei</td>
<td>Cisplatin 25 mg/m²/+ Mitomycin C 3.3 mg/m²</td>
<td>42.5</td>
<td>60</td>
<td>Closed</td>
<td>4-6 l</td>
<td>saline</td>
<td>Deraco M, et al. Ann Surg Oncol 2004;11:393-8.</td>
</tr>
<tr>
<td>Pseudomyxoma Peritonei</td>
<td>Cisplatin 100 mg/m²/+ Nitomycin C 16 mg/m²</td>
<td>41.5</td>
<td>60</td>
<td>Closed</td>
<td>N/A</td>
<td>Peritoneal dialysis solution 1 l/min</td>
<td>Cloppa T, et al. World J Gastroenterol 2008;14:6817-23</td>
</tr>
</tbody>
</table>

[Table 2. Chemotherapeutic drugs on IPCH (Part II)]
Poster Presentation: Ovarian Cancer
THE EVALUATION OF PACLITACEL-CARBOPLATIN CHEMOTHERAPY RESPONSE OF EPITHELIAL OVARIAN CANCER USING MATRIX METALLOPROTEINASE-2 (MMP-2) SERUM LEVEL

S. Rauf¹, R. Masadah², D. Burhansah¹

¹Obstetrics and Gynecology, ²Pathology, Hasanuddin University, Makassar, Indonesia

This research was aimed to evaluate the combination chemotherapy of Paclitaxel-Carboplatin response by evaluating the level changes of MMP-2 serum after three series of chemotherapy of epithelial ovarian cancer. Twenty-six ovarian cancer patients were involved in this study, with the most cases of ages were less than 45 years old (61.5%), nullipara (46.2%), serous histological type (61.6%), moderately differentiation grade (42.3%), and advanced stage (69.2%), MMP-2 serum level was lower after than before the Paclitaxel-Carboplatin treatment (587.76 vs. 829.19ng/ml). There was a significant difference between MMP-2 serum levels before and after having the chemotherapy (p = 0.002). MMP-2 serum level of the advanced stage of ovarian cancer is significantly higher than the early stage (p = 0.014), which indicates that advanced stage of ovarian cancer is more responsive to Paclitaxel-Carboplatin than early stage (p = 0.005 vs. 0.263). There is a tendency that serous adenocarcinoma of ovarian cancer is more responsive towards Paclitaxel-Carboplatin than the mucinous type (p = 0.006 vs. 0.161). There was no significant difference of MMP-2 serum level based on differentiation grade. This study shows that MMP-2 can be used to evaluate the responsiveness of Paclitaxel-Carboplatin chemotherapy of epithelial ovarian cancer, which may be developed as a tumor marker in the future.
THE EVALUATION OF PACLITACEL-CARBOPlatin CHEMOTHERAPY RESPONSE OF EPITHELIAL OVARIAN CANCER USING MATRIX METALLOPROTEINASE-2 (MMP-2) SERUM LEVEL

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Poster Presentation: Ovarian Cancer
TREATMENT OF ADVANCED OVARIAN CANCER

V. Kukura¹, B. Kocman², G. Zovko¹, S. Jadrijevic¹, J. Valetic¹, D. Mikulic², K. Polancec¹

¹Gynecology & Obstetrics, ²Center of Transplantation Solid Organs, Merkur University Hospital, Zagreb, Croatia

Aims: The aim of this study was to evaluate the place of surgery for treatment of advanced ovarian cancer.

Methods: From 1998 to 2012, one hundred and forty-eight patients, mean age 59.2 years with FIGO stages III-IV epithelial ovarian and extraovarian primary peritoneal cancers were operated at our institution. Standard and radical surgery performed in 71.6% and ultraradical surgery in 28.4% patients, respectively. Surgery followed by platinum-based chemotherapy. Primary outcome measure was five years overall survival.

Results: A total of 148 patients 113 (76.3%) cytoreduced to no visible tumor. Stage IIIA of disease have 5 (3.4%), IIIB 12 (8.1%), IIIC 113 (76.3%) and stage IV 18 (12.2%) of the patients. Histologic type were 74.3% serous, 10.8% endometrioid, 8.1% mucinous and 6.8% mixed tumors. After surgery 26.3% patients were treated with CAP and 73.7% with TC protocol of chemotherapy for six cycles. Patients were evaluated by noninvasive methods every three months for the first two years, every six months during the next three years and than annually. Second operation had 32.4%, third 10.1% and fourth 3.4% of patients. Eight of them performed total peritonectomy with hyperthermic chemotherapy. Second line of chemotherapy receive 64.9%, third 35.1%, fourth 12.2% and fifth 4.7% of cases. Five years follow up has reached 108 patients and overall survival was 53.7%.

Conclusions: This study confirms the importance of surgery in the prognosis of advanced ovarian cancer. Patients with any residual disease after surgery require new therapeutic options, inhibitors of tumor angiogenesis.
Poster Presentation: Ovarian Cancer
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Poster Presentation: Ovarian Cancer

COMBINING LOW DOSE LBH589 WITH DOCETAXEL INCREASES APOPTOSIS IN EPITHELIAL OVARIAN CANCER CELLS VIA PI3K/AKT/MTOR SIGNALLING PATHWAY

Y. Li¹, L. Wang², H. Chao², J. Hao¹, J. Ni¹, L. Chang¹, J. Deng², P. Graham¹, J. Kearsley¹

¹Cancer Care Centre, St George Hospital, University of New South Wales, Kogarah, NSW, Australia, ²Gynecologic Oncology, The Affiliated Cancer Hospital of Zhengzhou University, Zhengzhou, China

Aim: The objective in this study was to investigate the effect of combination of LBH589 with docetaxel (DTX) on the growth and survival of epithelial ovarian cancer (EOC) cells in vitro and the possible mechanisms of chemo-sensitization of LBH589 in the combination treatment.

Methods: The effect of LBH589 alone or in combination with DTX on four EOC cell lines was studied by MTT and clonogenic assays, acridine orange (AO)/ethidium bromide (EB) staining for apoptosis, Western blotting for apoptosis-related proteins, histone H3 and H4 proteins, DNA double strand break (DSB) repair marker and phosphorylation of Akt and mTOR.

Results: LBH589 alone inhibited EOC cell proliferation in a time-and-dose-dependent manner. Low-dose of LBH589 (IC₂₀) combined with DTX had a synergistic effect and greatly improved efficacy of DTX cell killing in EOC cells. Compared to DTX alone, the combination treatment with LBH589 and DTX induced more apoptosis and led to an increased and persistent DSB. Cell death following single or combined treatment was associated with the release of cytochrome c activity, increased caspase-3 (active) and PARP-1 (cleaved), histone acetylation-related proteins and PI3k/Akt/mTOR signalling pathway.

Conclusions: We have demonstrated for the first time that LBH589 inhibited EOC cell proliferation in a dose-dependent manner and low-dose LBH589 combined with DTX greatly enhanced killing of EOC cells. The putative mechanisms of the synergistic effect of this combination treatment in EOC cells include induction of apoptosis and more DNA damage via PI3k/Akt/mTOR signalling pathway. This combination treatment may offer opportunities for novel therapeutic strategies in EOC treatment.
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Poster Presentation: Ovarian Cancer
EFFECT OF POLYMORPHISMS OF ESTROGEN RECEPTOR BETHA RS1271572 TO THE INCIDENCE OF EPITHELIAL OVARIAN CARCINOMA

D. Silva, R. Sanif
Obstetrics Gynecology, Sriwijaya, Palembang, Indonesia

Objective: To determine the effect of polymorphism of estrogen receptor beta to the risk of epithelial ovarian carcinoma at dr. Mohammad Hoesin Hospital Palembang

Methods: This population based case control study included 40 women with epithelial ovarian carcinoma and 40 controls, from January 2010 until December 2011. Data analysis was performed by Chi Square test.

Results: Distribution of estrogen receptor beta genotypes both of GT and TT (wild type-mutant and mutant) among case subjects had significantly higher than control (24 subjects or 60% and 5 subjects or 12.5%). The genotype effect was statistically significant for rs1271572 (OR = 2.636, p = 0.039) with Chi Square analysis. Where as, the allotype effect was also statistically significant (OR = 1.949, p = 0.047).

Conclusion: Polymorphism of estrogen receptor β may play a role in the risk of epithelial ovarian carcinoma
**Poster Presentation: Ovarian Cancer**

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 Poster Presentation: Ovarian Cancer
SURVIVAL OF BORDERLINE TUMORS OF THE OVARY AND ITS PROGNOSTIC FACTORS AT CIPTO MANGUNKUSUMO HOSPITAL FROM 1990 TO 1999

R. Sanif¹, L. Nuranna², B. Sutrisna³

¹Obstetrics Gynecology, Sriwijaya, Palembang, ²Obstetrics Gynecology, ³Epidemiology, Indonesia University, Jakarta, Indonesia

Sixty-two patients with borderline tumors of ovary were historical cohort analyzed for survival characteristics. There were 9 patients with FIGO stage IA, 9 with stage IC, 3 with stage IIIA, 2 with stage IIIB, 4 with stage IIIC, 1 with stage IV and 34 with inadequate stage tumors. Twenty one patients had surgical staging with radical surgery, 10 patient had at least a total abdominal hysterectomy and bilateral salpingo-oophorectomy, 6 patient had surgical staging with conservative surgery, 24 patient had at least a unilateral salpingo-oophorectomy or ovarian cystectomy and 1 patient had biopsy. Sixteen patients received cisplatin-based combination chemotherapy, that were 8 with inadequate stage tumors, 7 with stage III tumors and 1 with stage IV tumor. Follow-up range from 0.02 to 10.48 years, with a median of 3.5 years. Fifty nine patient were alive. Three patients died, all of disease. Four patients were recurrence. The overall 2-years survival rate was 96 % and 10-years survival rate was 94 %. In log rank test, residual disease and histology type were significant predictor of survival.
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Poster Presentation: Ovarian Cancer

OVARIAN MATURE CYSTIC TERATOMA WITH MALIGNANT TRANSFORMATION: A CASE REPORT

B.R. Titaley¹, I. Sastradinata²

¹Obstetrics & Gynecology, ²Obstetrics Gynecology, Sriwijaya, Palembang, Indonesia

Ovarian mature cystic teratoma with malignant transformation is very rare case with the incidence is 1-2% of all ovarian mature teratoma in the world. The most common malignant transformation is squamous cell carcinoma (75%). Due to very rare case and very poor prognosis, the standard therapy for this case can not be established. Five years survival rate of this tumor is 52%.

Mrs. Z. 68 years old (P.A.0) with complaint mass in lower abdomen. The physical, ultrasound and CT scan examinations showed a 20x18 cm solid ovarian mass tend to be a dermoid cyst. Tumor marker Chorio Embryonic Antigen (CEA) was 3.37 ng/ml, Ca-125 was 75.20 ng/ml with Resistancy Mass Index (RMI) 3 was 225.6 and RMI 4 was 601.6. Based on the findings, we diagnosed the patient as a solid ovarian neoplasm malignancy was suspected with differential diagnosis of dermoid cyst.

The patient underwent laparotomy and frozen section. The frozen section result showed a teratoma from left ovary with malignant transformation. Therefore we performed radical surgical staging. Histopathology was compatible with a mature cystic teratoma with malignant transformation of squamous cell carcinoma with metastasis to rectum and myometrium. We planned to administer chemotherapy with Paclitaxel and 5-fluorouracil concurrent with radiotherapy.
Poster Presentation: Ovarian Cancer

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Poster Presentation: Ovarian Cancer
EXPRESSION OF P53 IN OVARIAN CANCER EARLY STAGES

V.L. Karapetyan¹, S. Markova²

¹N.N. Blokhin Cancer Research Centre, ²City Clinical Hospital 15 O.M. Filatov, Moscow, Russia

Malignant epithelial ovarian tumors are a major cause of death among women. Much attention is paid to the study of protein expression that characterize apoptosis. Central role in the development of apoptosis is p53.

**Materials and methods:** The study included 48 patients with ovarian cancer stages I-II and evaluated by immunohistochemistry the expression of mutant p53 gene.

**Results:** Expression of p53 is set to 33.3%. Expression of mutant p53 in tumor tissue was 46.1% of patients with serous, 18.8% - 16.7% and endometriosis - mucinous cystadenocarcinoma (p = 0.044).

Expression of mutant p53 in tumor tissue in parous patients was observed more frequently (39.4% of cases) than in nulliparous (11.1% of cases) (p = 0.041).

The analysis showed that in patients with ovarian cancer early stages, accompanied by uterine cancer, cases with p53 positive cancer cells are found in 2 times more likely (47.1% and 24.1% respectively).

Analysis of long-term results of treatment of patients with ovarian cancer stages I-II, depending on the accumulation of mutant p53 in tumor tissue showed that the presence of p53, all patients died within the first 6 years (p≤ 0.05).

**Conclusion:** A study of clinical and molecular study showed that the expression of mutant p53 in tumor cells can be considered as an adverse prognostic factor.
**Poster Presentation: Ovarian Cancer**

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Expression of mutant p53 in tumor tissue in parous patients was observed more frequently (39.4% of cases) than in nulliparous (11.1% of cases) (p = 0.041).

The analysis showed that in patients with ovarian cancer early stages, accompanied by uterine cancer, cases with p53 positive cancer cells are found in 2 times more likely (47.1% and 24.1% respectively).

Analysis of long-term results of treatment of patients with ovarian cancer stages I-II, depending on the accumulation of mutant p53 in tumor tissue showed that the presence of p53, all patients died within the first 6 years (p≤ 0.05).

**Conclusion:** A study of clinical and molecular study showed that the expression of mutant p53 in tumor cells can be considered as an adverse prognostic factor.
Poster Presentation: Ovarian Cancer
ADVANCED OVARIAN CANCER AS A RISKS OF PRIMARY MULTIPLE MALIGNANT TUMORS AFTER THE TREATMENT OF EXTRA GENITAL CANCER

G.B. Chakalova
Gynecological Oncology, National Cancer Center, Sofia, Bulgaria

From 1987 till 2011, 2319 patients with ovarian cancer were treated at our Department, in 101 cases (4.4%) ovarian cancer was a part of combination of primary multiple malignant tumors. In 93 cases the combination was between 2 tumors. In 25 cases the tumor combination was genital (14 endometrial, 8 cervical, 3 uterine sarcomas) and in 68 was extra genital (51 breast, 9 rectum, 3 thyroid, 1 MM, 1 skin, 1 lymphoma, 1 larynx and 1 renal). In 8 cases the combination was between 3 tumors (5 breast, 3 rectum, 3 endometrial, 2 cervical, 1 thyroid, 1 MM, 1 larynx). All cases of primary extra genital tumor were early diagnosed and treated. From 101 ovarian cancer, 85 cases were advanced - Stage III and IV. Our results show that ovarian cancer is late diagnosed in cases with PMMT. In follow-up of the primary extra genital tumor especially in cases of breast and rectum cancers an algorithms for early detection of the ovary cancer is recommended: vaginal and rectal examination, laboratory analyses: WBC, biochemical analyses including check for renal function, Hb, Ca 125, HE4, imaging: chest X-ray, abdominal and pelvic ultrasound. Optional investigation are: pelvic NMR, CT of the abdomen (PET/CT if possible), cystoscopy, rectoscopy, IVU or sonographic renal examination. Recommended follow-up: every 3 months after completed therapy during the first year, every 6 months up to 5 years. Annually afterwards. Investigations in addition to gynecological examination should be performed depending on symptoms, local findings and general condition of the patient.
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**Poster Presentation: Ovarian Cancer**

**A TRIBUTE TO DR. ROBERT E. SCULLY, ARCHITECT OF PATHOLOGICAL CLASSIFICATION OF OVARIAN TUMORS**

J. Rutgers  
*Pathology, Long Beach Mem Med Ctr/Univ Calif Irvine, Long Beach, CA, USA*

**Introduction:** Knowledge of the history of tumor classification assists in understanding the progress and future challenges in medicine.

**Objective:** To honor one of the 20th century’s greatest gynecological pathologists, Dr. Robert E. Scully (RES), 8/31/21 - 12/30/2012, Emeritus Professor of Pathology, Harvard Medical School.

**Method:** To summarize RES’s contribution to gyn path, through personal contact as a trainee and reading RES’s publications.

**Result:** RES authored the first World Health Organization (WHO) classification of Ovarian Tumors, 1973, and the Armed Forces Institute of Pathology (AFIP) Fascicle of Ovarian Tumors (1979 and 1998). Active in Federation of Gynecology and Obstetrics (FIGO), and instrumental in the current division of epithelial ovarian tumors into benign, borderline, and malignant. RES first recognized DES-related vaginal clear cell carcinoma in adolescents, and described the intersex conditions gonadoblastoma and testicular feminization (androgen insensitivity syndrome).

Other firsts include juvenile granulosa cell tumor, sex cord tumor with annular tubules, retiform Sertoli-Leydig cell tumor, sclerosing stromal tumor, small cell carcinoma hypercalcemic type, mullerian adenosarcoma, female adnexal tumor wolffian origin, and endocervical-type mucinous borderline tumor.

RES was also Editor, New England Journal Case Records of Massachusetts General Hospital (Clinicopathological Conference) for 27 years.

**Conclusion:** RES is the ‘architect’ of modern classification of ovarian tumors through international classification consenses, providing the first description of nearly 10 gyn pathological entities, and authoring nearly 500 scientific publications. RES advocated close communication between surgeons and pathologists: “a surgical pathologist is a physician who has one eye on the microscopical slide, and the other on the patient”.

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Poster Presentation: Ovarian Cancer  
SERUM LEVEL OF HSP 70 AND SERUM MARKER OF CA125 IN OVARIAN EPITHELIAL CANCER AND BENIGN OVARIAN MASSES  
Z. Yousefi, M. Dehghani, M. Hasanzade Mofrad, F. Vahidroodsari, S. Ayati  
Ghaem Hospital / Mashhad University of Medical Sciences, Mashhad, Iran  

Background: Ovarian cancer is one of the most common gynecological malignancies with high mortality rate. This high mortality rate may be due to delay in diagnosis. Using tumor-specific markers that are sensitive in early stages of the cancer is very effective to improve results of therapy. In this study, we evaluated diagnostic value of HSP70 (Heat Shock Protein70) and CA125 serum levels in patients with epithelial ovarian tumors.

Methods: 37 patients with ovarian cancer (group 1) and 35 patients with benign ovarian masses (group 2) were enrolled. Blood samples were taken from all patients before surgery. Ovarian cancer patients underwent surgery and tumor staging. Also patients with benign ovarian masses underwent surgery of cystectomy or ooforectomy. Serum level of HSP70 and CA125 were measured by ELISA and RADIO IMMONO ASSY method, respectively. Finally HSP70 and CA125 levels before surgery were compared between two groups.

Results: Average age in group 1 was 49.62±15.28 year, in group 2 was 37.28±13.81 years; it was significantly higher in group 1 than group 2 (p< 0.001). Clinical symptoms in 62.5% of patients referred with a pathology of ovaries whether benign or malignant was abdominal pain. Level of CA125 and HSP70 in group 1 was 672.95±470.55, 0.859±0.461, respectively. Level of CA 125 and HSP70 in epithelial ovarian cancer was significantly higher than other group (0.025)(0.001).

Conclusion: due to significant increase in the HSP70 level among epithelial ovarian cancer patients, HSP70 can be useful for early detection of epithelial ovarian cancer patients especially when used besides CA125.
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Poster Presentation: Ovarian Cancer

ESTIMATION OF DALYS DUE TO OVARIAN CANCER IN INDIA

S.C. Nooyi\textsuperscript{1}, S. Shivananjaiah\textsuperscript{1}, A. Mathew\textsuperscript{2}, P. George\textsuperscript{2}, N.S. Murthy\textsuperscript{3}

\textsuperscript{1}Community Medicine, M S Ramaiah Medical College, Bangalore, \textsuperscript{2}Department of Clinical Research and Epidemiology, Regional Cancer Center, Thiruvananthapuram, \textsuperscript{3}Division of Research and Patents, Gokula Education Foundation, Bangalore, India

Background: Ovarian cancer ranked third (6.5\%) among all cancers in Indian women in 2001-2003 and has shown an increasing trend. Disability Adjusted Life Years (DALYs) due to ovarian cancer can describe the present and future burden of disease.

Objectives: To estimate (a) age specific DALYs due to ovarian cancer; (b) total DALYs due to all sites of female cancers in India in 2001 and at five year intervals until 2026.

Methodology: YLL, YLD and DALYs have been estimated using DISMOD procedure as in Global Burden of Disease study. Data on age, ovarian and 'all sites' cancer incidence & mortality for the year 2001-2003 in six Indian Population Based Cancer Registries, expectation of life of Indian females for urban areas for 1999-2003 and projected female population during 2001, 2006, 2011, 2016, 2021 and 2026 were utilized for computations.

Results: Total DALYs and DALYS per 100,000 due to ovarian cancer in India would increase from 183195 and 36.9/100,000 in 2001 to 348468 and 51.7/100,000 by 2026 respectively, due to increase in population size and changing age structure. The YLL component contributed to about 50\% of DALYs. Age specific DALYs ranged from 1331 (0-4 years) to 12720 (70-79 years) in 2001 and 1115 (0-4 years) and 36614 (70-79 years) in 2026. DALYs due to ovarian cancer accounted for about 7\% of total DALYs due to all female cancers.

Conclusion: Burden of ovarian cancer in India is increasing and hence there is a need for increasing awareness and early detection for its control.
Poster Presentation: Ovarian Cancer
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Poster Presentation: Ovarian Cancer

BRAIN METASTASES IN EPITHELIAL OVARIAN CANCER - MULTIMODAL TREATMENT INCLUDING SURGERY OR GAMMA-KNIFE RADIATION IS ASSOCIATED WITH PROLONGED SURVIVAL

A. Rajanbabu¹, X. Niu², J. Press³, W.H. Gotlieb³

¹Amrita Institute of Medical Sciences, Kochi, Amrita Vishvavidyapeetham, Kochi, India, ²Obstetric & Gynecologic Department, Sichuan University Huaxi Second Hospital, Sichuan, China, ³Gynecologic Oncology, Jewish General Hospital, McGill University, Montreal, QC, Canada

Objective: Explore the value of treatment modality on survival in patients with brain metastases from epithelium ovarian cancer.

Methods: Retrospective chart review from all patients with ovarian cancer and brain metastases treated at 3 institutions from different continents (Canada, China, India). Medline search performed to extract data from published studies about brain metastases in ovarian cancer which detailed survival related to treatment modality.

Results: Twelve patients with detailed treatment and outcomes data were included, with mean age of 56, including 5 patients from China, 4 patients from Canada, and 3 patients from India. The median time from the diagnosis of ovarian cancer to brain metastasis was 19 months (range 10 - 37 months), and the overall survival from the diagnosis of ovarian cancer was 37 months (range 13-82 months). Among patients who had multimodal treatment including gamma-knife radiotherapy or surgical excision, the survival after the onset of brain metastasis was 24.6 months compared to the 3.8 months in patients whose treatment did not include this type of focused localized modality (p = 0.005). Analysis of 20 studies in the literature also indicated that use of gamma-knife radiosurgery and excisional surgery in multi-modal treatment resulted in improved survival interval after diagnosis of brain metastasis (25 months vs 6.0 months, p = 0.0001)

Conclusions: Prolonged survival in a subset of patients with brain metastases from ovarian cancer may be obtained with multidisciplinary therapy, particularly if the metastases are amenable to localized treatments such as gammaknife radiosurgery and surgical excision.
Poster Presentation: Ovarian Cancer

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A. Rajanbabu1, X. Niu2, J. Press3, W.H. Gotlieb3

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Poster Presentation: Ovarian Cancer
RETROSPECTIVE STUDY OF BEVACIZUMAB IN REFRACTORY OVARIAN CANCER

A. Rauthan¹, S. Patil², N. Reddy³, P. Bapsy⁴, N. Kilara⁵

¹Manipal Hospital, ²HCG Hospital, ³Columbia Asia Hospital, ⁴Oncology, Apollo Hospital, ⁵MS Ramaiah Hospital, Bangalore, India

Background: Despite the advances in chemotherapy, management of cancer ovary continues to be problematic. Vascular Endothelial factor is a promoter of angiogenesis in the biology of ovarian cancer. Bevacizumab is an inhibitor of angiogenesis. It suppresses the tumor vasculature, leaky vasculature and also has direct cytotoxicity via autocrine mechanism.

This study comprises of retrospective collection of data from 5 Institutions in Bangalore, India. Refractory Ovarian Cancer who has been exposed to > 3 lines of chemotherapy has been included in the study. All patients depending on their previous treatments were given chemotherapy combinations (GEMOX, LIPOSOMAL DOX + CARBOPLATIN, DOCETAXEL + CARBOPLATIN) along with Bevacizumab (dosage varying from 5-7mg/kg body weight).

The objective of the study was to evaluate response and safety.

28 patients of cancer ovary who have failed on > 3 regimens of the treatment were included in the analysis. There were objective responses: CR-6/26, PR-17/26 &PD - 3/26. Two died before any evaluation. Out of Two patients one developed fecal fistula and other patient with septicemia and died after 1st course. 4/26 developed myelo suppression requiring postponement of the subsequent cycle. One developed intestinal obstruction needing a stent and one developed bleeding from vagina. 6/6 CR and 10/16 PR patients are alive. The median survival was 8.4 months

Conclusion: The initial result of our retrospective study is encouraging. It was well tolerated with various regimens of chemotherapy. There were no bowel perforation and only one patient had bleeding and no patient developed exacerbation of hypertension.
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**ALTERED MICRORNAS EXPRESSION IN CISPLATIN-RESISTANT OVARIAN CANCER CELL AND UP-REGULATION OF MIR-130A ASSOCIATED WITH MDR1/P-GLYCOPROTEIN MEDIATED DRUG RESISTANCE**

L.Y. Yang, H.J. Wang

*Gynecology and Obstetrics, West China Second Hospital, Sichuan University, Chengdu, China*

**Introduction:** MicroRNAs (miRNAs) are short non-coding RNA molecules and involved in biological processes regulation. Drug resistance has become a major obstacle to successful chemotherapy of ovarian cancer.

**Objective:** The aim of this study was to investigate microRNAs expression profiling in cisplatin-resistant ovarian cancer cell and the role of miR-130a in regulating drug resistance.

**Methods:** Analysis of differentially expressed miRNAs between SKOV3 and SKOV3/CIS was assessed by miRNA microarray. Target prediction of miRNAs was determined with the help of PicTar or TargetScan. Among these miRNAs, the expression of miR-130a was verified using qRT-PCR. The expression of MDR1 mRNA and P-glycoprotein (P-gp) after cellular transfection was respectively examined using qRT-PCR and western blot. Cisplatin sensitive was detected by MTT assay.

**Result and conclusion:** We indentified thirty-five down-regulated and fifty-four up-regulated miRNAs in SKOV3/CIS compared to those in SKOV3. We found that expression of miR-130a was up-regulated in SKOV3/CIS than in parental SKOV3 and PTEN was predicted to be the potential target of miR-130a. Moreover, down-regulation of miR-130a could inhibit MDR1 mRNA and P-gp expression and overcome the cisplatin resistance in SKOV3/CIS, which indicated that miR-130a might be associated with MDR1/P-glycoprotein mediated drug resistance and played an intermediate role in PI3K/Akt/PTEN/mTOR and ABC superfamily drug transporters drug-resistant pathways in SKOV3/CIS cell. It was a significant implication in the development of targeted gene therapy for reversing cisplatin resistance in ovarian cancer.
Poster Presentation: Ovarian Cancer

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Poster Presentation: Ovarian Cancer
PAPILLARY SEROUS CYSTADENOCARCINOMA OF THE OVARY MAINTENANCE CASE


Clinical Oncology, Cairo University, Cairo, Egypt

Papillary serous cystadenocarcinomas are the most common form of malignant ovarian cancer making up 26 percent of ovarian tumours in women aged over 20 1. trials of consolidation and/or maintenance treatment for ovarian cancer did not show any improved survival after the initial platinum / paclitaxel induction 2. In this case report, a 58 years old patient presented on December 2009, with relapsed EOC five months after standard surgery for bilateral ovarian papillary serous cystadenocarcinoma for which she received one line of treatment followed by aggressive recurrence. Second line treatment followed by maintenance therapy with Topotecan based regimen managed to keep the patient disease free for more than two years till now. Our treatment plan is to continue to administer this therapy until relapse or intolerable toxicity. Topotecan is showing successful long-term therapy with no cumulative adverse events.
**Poster Presentation: Ovarian Cancer**

**PAPILLARY SEROUS CYSTADENOCARCINOMA OF THE OVARY MAINTENANCE CASE**

**S.A.M. Bahr, H. Dawood, H. Attia, A. Morsy, I. Iskander, A. Hammad, A. Hamdi, M. Mazloum**

*Clinical Oncology, Cairo University, Cairo, Egypt*

Papillary serous cystadenocarcinomas are the most common form of malignant ovarian cancer making up 26 percent of ovarian tumours in women aged over 20.1. Trials of consolidation and/or maintenance treatment for ovarian cancer did not show any improved survival after the initial platinum / paclitaxel induction.2. In this case report, a 58 years old patient presented on December 2009 with relapsed EOC five months after standard surgery for bilateral ovarian papillary serous cystadenocarcinoma for which she received one line of treatment followed by aggressive recurrence. Second line treatment followed by maintenance therapy with Topotecan based regimen managed to keep the patient disease free for more than two years till now. Our treatment plan is to continue to administer this therapy until relapse or intolerable toxicity. Topotecan is showing successful long-term therapy with no cumulative adverse events.
Poster Presentation: Ovarian Cancer

EFFICACY COMPARISON OF RISK OF OVARIAN MALIGNANCY ALGORITHM (ROMA) WITH RISK OF MALIGNANCY INDEX (RMI) FOR DIFFERENTIATING OVARIAN TUMOR

M. Elvina, S. Dina, M.F.G. Siregar, M.F. Sahil, H.S. Siregar, H.P. Pasaribu

Obstetrics & Gynecology, H.Adam Malik General Hospital - Faculty of Medicine - University of North Sumatera, Medan, Indonesia

Background: Women presenting with a large or complex ovarian tumor are referred to extensive surgical staging to ensure the correct diagnosis and treatment of a possible epithelial ovarian cancer. Differentiation between malignant and benign epithelial ovarian tumor is essential for establishing a system for patient referrals. Therefore, the contributions of the tumor markers CA125 and HE4, as well as ROMA and RMI values were considered to improve the patient referral system.

Methods: Patients diagnosed with ovarian tumor were included (n=56) consecutively. Patients were assessed for CA125 and HE4 levels. The ROMA and RMI values were also determined. The sensitivity and specificity of each parameter were calculated using ROC according to AUC for each method.

Results: The study population included women with malignant (n=28) and benign (n=28) epithelial ovarian tumors. Cut-off point for HE4 (112.6 pM) was used at 92.9% sensitivity and 94.6% specificity. Cut-off point for CA125 (52.5 U/mL) was used with 78.6% sensitivity and 64.3% specificity. The sensitivities and specificities associated with the ability of ROMA or RMI to differentiate between malignant and benign epithelial ovarian tumors were 89.3% and 82.1% for ROMA, and 71.4% and 82.1% for RMI.

Conclusion: The ROMA is a simple scoring system showing a better diagnostic performance than the RMI. The ROMA may be used as an acceptable assessment method for referring patients to referral centers.
Poster Presentation: Ovarian Cancer

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Obstetrics & Gynecology, H.Adam Malik General Hospital - Faculty of Medicine - University of North Sumatera, Medan, Indonesia

Background: Women presenting with a large or complex ovarian tumor are referred to extensive surgical staging to ensure the correct diagnosis and treatment of a possible epithelial ovarian cancer. Differentiation between malignant and benign epithelial ovarian tumor is essential for establishing a system for patient referrals. Therefore, the contributions of the tumor markers CA125 and HE4, as well as ROMA and RMI values were considered to improve the patient referral system.

Methods: Patients diagnosed with ovarian tumor were included (n=56) consecutively. Patients were assessed for CA125 and HE4 levels. The ROMA and RMI values were also determined. The sensitivity and specificity of each parameter were calculated using ROC according to AUC for each method.

Results: The study population included women with malignant (n=28) and benign (n=28) epithelial ovarian tumors. Cut-off point for HE4 (112.6 pM) was used at 92.9% sensitivity and 94.6% specificity. Cut-off point for CA125 (52.5 U/mL) was used with 78.6% sensitivity and 64.3% specificity. The sensitivities and specificities associated with the ability of ROMA or RMI to differentiate between malignant and benign epithelial ovarian tumors were 89.3% and 82.1% for ROMA, and 71.4% and 82.1% for RMI.

Conclusion: The ROMA is a simple scoring system showing a better diagnostic performance than the RMI. The ROMA may be used as an acceptable assessment method for referring patients to referral centers.
Poster Presentation: Ovarian Cancer
CLEAR CELL CARCINOMA OF THE OVARY IN DR. CIPTO MANGUNKUSUMO HOSPITAL, JAKARTA, INDONESIA

H. Winarto¹,², R. Liem¹,², T.W. Utami¹,², T.D. Anggraeni¹,², L. Nuranna¹,²
¹Faculty of Medicine, University of Indonesia, ²Obstetrics and Gynecology, Dr Cipto Mangunkusumo Hospital, Jakarta, Indonesia

Background: Ovarian Clear cell carcinoma (CCC) is a rare malignancy, accounts for less than 5% of all ovarian malignancies. This type of carcinoma shows a worse prognosis compared to common serous type ovarian carcinoma, thus increasing the concern of physicians in treating patients with CCC. In this study, incidence of ovarian CCC and its characteristics will be discussed.

Aim: To describe the clinicopathological characteristics, management, and the results of management of CCC patients.

Methods: Data was taken from DR Cipto Mangunkusumo Hospital Cancer Registry from January 1st 2009 to 31st May 2012. All patients with CCC histopathological type were included. Patients with unclear identification data were excluded.

Results: From total 635 ovarian carcinoma patients, there were 48 patients with CCC histological type, with average age at 48.9 years old. From those 48, 10 patients had undetermined staging, 21 patients were diagnosed in advance stage (stage III and IV), and 16 in stage I and II. There were 3 cases of liver metastasis, and 2 of the lung. Seventeen patients were known to have optimal debulking surgery. Afterwards, 34 patients underwent chemotherapy, and 6 patients had relapse while 6 other patients had progressive disease.

Conclusion: In our case, most patients came in their fifth decade of life and were diagnosed in advance stages. In the follow up time after treatment, 17 out of 48 patients were still free of disease. Most of the patients were lost to follow.
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PROTECTIVE EFFECT OF MELATONIN ON HISTOLOGICAL CHANGES IN CEREBELLUM OF NEWBORN MICE BY CISPLATIN-TREATMENT

S. Hejazi¹, S. Beirami²

¹Basic Sciences, Faculty of Veterinary Medicine, Tabriz Branch, Islamic Azad University, ²Islamic Azad University, Tabriz Branch, Tabriz, Iran

Background: Cisplatin is one of the most effective anti-cancer drugs used in the treatment of malignant tumors. In recent years, concerns regarding the incidence of reproductive abnormalities in humans has been increasing.

Methods: In this experimental study a total of 24 pregnant mice (NIH) were distributed in three equal groups including control group, intervention group 1, and intervention group 2. The infants’ Cerebellum samples (24 infants) were stained by H&E method and were examined under a light microscope after the fixation and preparation for histological sections.

Results: In intervention group 1 and 2, the layers of cerebellum cortex were observed having an irregular tissue. The cerebells lacked leaf shape and were totally in initial form with deficiency in neuropil tissue. In intervention group 1, in meningeal membrane and pia-mater tissue hyperemia and edematous, and in epithelial tissue of choroids plexus in fourth ventricle and neuroglia tissue, Hyperemia and apoptosis were observed sporadically. In intervention group 2, less Hyperemia and edematous were observed in pia mater tissue and choroidsplexus In fourth ventricle, and no apoptosis was spotted.

Conclusion: In the present study, new phenomena were presented in order to demonstrate the induction mechanism of underdevelopment in the formation of cerebellum of neonatal rats treated with cisplatin during fetal life, and also the induction of apoptosis and irregularity of cell structure of cerebellum tissue by cisplatin and anti-apoptotic Effects of melatonin was also raised.
Poster Presentation: Ovarian Cancer

HEPATOID VARIANT OF YOLK SAC TUMOUR OF BOTH OVARIES WITH WIDESPREAD INTRA-ABDOMINAL AND LUNG METASTASIS - A CASE REPORT

P.S. Srilatha¹, L. Rao², P. Kumar³, S.T. Bhat¹

¹Pathology, Melaka Manipal Medical College (Manipal Campus), Manipal University, ²Pathology, Kasturba Medical College, Manipal University, Manipal, India

Introduction: Hepatoid variant of yolk sac tumour of ovary is an unusual tumour with an aggressive behaviour. It is usually seen in young females, presents with abdominal complaints and is associated with raised α-fetoprotein levels.

Case report: We report a case of a 30 year old married parous lady who presented with abdominal distention and pain of 2 months duration. She had regular menstrual cycles. On lab investigation her serum α-fetoprotein levels were markedly raised. CT scan showed large lobulated heterogenous mass both ovaries with omental, gall bladder and lung metastasis. A CT guided biopsy of the ovarian mass was done. On histopathology a differential diagnosis of hepatoid variant of yolk sac tumour, hepatoid carcinoma of ovary and hepatoid tumour arising from gall bladder metastasizing to the ovary were given.

Patient underwent surgery. Per operatively gross ascitis with bilateral ovarian mass, extensive omental , pelvic and gall bladder deposits were observed. Bilateral salpingo-oopherectomy with omental deposit biopsy was done. Histopathology along with immunohistochemistry confirmed a diagnosis of hepatoid variant of yolk sac tumour both ovaries with widespread intra-abdominal metastasis.

Conclusion: Hepatoid variant of yolk sac tumour is a rare and aggressive tumour. It has to be differentiated from other hepatoid tumours involving the ovary. A complete patient evaluation with gross, microscopy and immunohistochemistry can identify the site of origin, so that appropriate treatment can be administered.
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**Poster Presentation: Ovarian Cancer**

**HUMAN OVARIAN TISSUE VITRIFICATION AS AN ALTERNATIVE METHOD FOR FERTILITY PRESERVATION**

M. Abdollahi¹, M. Salehnia¹, S. Salehpour²

¹Department Anatomical Science, Medical Science Faculty, Tarbiat Modares University, ²Department of Obstetrics and Gynecology, Shahid Beheshti University of Medical Sciences, Tehran, Iran

**Aim:** One of the new emerging techniques for fertility preservation in cancer patients is cryopreservation of ovarian fragments prior to medical treatment. The aim of this study is investigation of apoptosis in cultured human ovarian tissue after vitrification and warming in culture media.

**Methods:** Human ovarian tissue was cut into small pieces. Some pieces were vitrified and then warmed. Non-vitrified and vitrified samples were cultured for 14 days. Apoptosis assessments were done by morphological evaluation, DNA Laddering and TUNEL (Terminal deoxynucleotidyl transferase dUTP nick end labeling) assay. Estradiol hormones were measured days 2 & 14.

**Results:** The normality rates of follicles in control and vitrified samples were 93.75% and 90.88% respectively. At the end of culture period 82.35%, 79% of follicles remained morphologically normal. There were no significant differences between these groups.

The estradiol concentrations were increased from day 2 to day 14 of culture period (P < 0.05). No patterns of DNA laddering were seen in first day and after 14 days in vitro culture of both non-vitrified and vitrified samples. Some TUNEL positive cells were seen in vitrified samples after 14 days culture in comparison with control group. There was no significant difference between the control & vitrified samples.

**Conclusions:** The results obtained by vitrification of ovarian tissue with this protocol were compatible with those of the fresh ovarian tissue.
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Poster Presentation: Ovarian Cancer
SMALL INTERFERING RNAs TARGETING IGF1 AND IGF1R POTENTIATE THE CYTOTOXIC EFFECT OF CHEMOTHERAPY IN OVARIAN CANCER CELL LINES

S.S. Han¹, C.H. Lee², J.M. Bae³, S.H. Lee⁴, D.H. Kim¹
¹Chung-Ang University, Seoul, ²Dongguk University, Ilsan, ³Han Yang University, Seoul, ⁴Gachon University Gil Medical Center, Incheon, Republic of Korea

Objectives: To determine the synthetic therapeutic effects of siRNAs targeting IGF1 and IGF1R with chemotherapy in ovarian cancer.

Material and methods: We used three ovarian cancer cell lines OVCAR3, SKOV3 and SNU119 in this study. (siRNAs) targeting human IGF1 and IGF1R mRNAs were transfected in each cell line. We firstly investigated the potency of siRNAs by real-time RT-PCR. Cytotoxicity of IGF1or IGF1R siRNAs was measured by MTT assay. The combined therapeutic effect of IGF1/IGF1R siRNAs and paclitaxel/carboplatin was also assessed by MTT assay.

Results: Cell viability was 58%, 87%, and 45% respectively after 72hrs of long term treatment IGF1 siRNA, IGF1R siRNA, and IGF1 siRNA + IGF1R siRNA in SNU119. Cell viability was decreased to 34% and 45% with 48hrs treatment of paclitaxel and carboplatin in SNU119, respectively. Cell viability was more decreased to 7% by IGF1 siRNA + paclitaxel and 14% by IGF1R siRNA + paclitaxel in SNU119. Cell viability after treatment of IGF1 siRNA was decreased to 40% in OVCAR3. Concurrent treatment of IGF1 siRNA and paclitaxel/carboplatin showed more cytotoxic effect. Synthetic treatment of IGF1R siRNA and paclitaxel/carboplatin also proved to be more cytotoxic in SKOV3.

Conclusions: IGF1 and IGF1R gene expression were well expressed in ovarian cancer cell lines. Single IGF1 or IGF1R siRNA showed effective cytotoxicity. Concurrent silencing of IGF1 and IGF1R genes more potently sensitized cancer cells to paclitaxel or carboplatin-induced cytotoxicity in ovarian cancer cell line.
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Primary Cytoreductive Surgery Versus Neo-Adjuvant Chemotherapy in Stage III/IV Ovarian Cancer: Comparison of Perioperative Morbidity and Survival Data

A. Begum, U. Chishti
Obstetrics and Gynecology, Aga Khan University Hospital, Karachi, Pakistan

Background: The current standard treatment for advanced ovarian cancer is primary debulking surgery (PDS) followed by chemotherapy. Neoadjuvant chemotherapy (NACT) has been proposed as a novel therapeutic approach when disease is not amenable to surgical resection.

Aims: The aim of this study was to compare the perioperative morbidity and survival rates between the two treatment groups.

Methods: Retrospective analysis of 118 patients with advanced stage ovarian carcinoma treated between 1999 and 2008 in Aga Khan University Hospital, Karachi was performed.

Results: Total of 118 patients were analyzed. PDS group had 78 women (66%) and NACT 40 (34%). The mean age and preoperative CA 125 level were similar. PDS group had 72 (95%) patients with stage 3 and 4 (5%) stage 4 disease, while NACT group had 32 (80%) and 8 (20%) with stage 3 & 4 respectively.

Duration of surgery, estimated blood loss > 1500 ml and ICU stay were not statistically different in the two groups. Rate of Urinary tract, bowel injury and bowel resections were also similar. The results revealed a comparative outcome of NACT with PDS (median survival 30 M vs. 32 M) with comparable postoperative adverse effects. Similarly there was no difference in the progression free survival in both the groups. (25 M in PDS vs. 21 M in NACT respectively).

Conclusions: NACT followed by interval debulking has got comparable survival rates and perioperative complications and can be safely considered in a select group of patients.
Poster Presentation: Ovarian Cancer
PRIMARY CYTOREDUCTIVE SURGERY VERSUS NEO- ADJUVANT CHEMOTHERAPY IN STAGE III/IV OVARIAN CANCER: COMPARISON OF PERIOPERATIVE MORBIDITY AND SURVIVAL DATA

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Poster Presentation: Ovarian Cancer

SELECTIVE CYCLOOXYGENASE INHIBITORS INCREASE PACLITAXEL SENSITIVITY IN TAXANE-RESISTANT OVARIAN CANCER BY SUPPRESSING P-GLYCOPROTEIN EXPRESSION


Cheil General Hospital and Women's Healthcare Center, Kwandong University College of Medicine, Seoul, Republic of Korea

Introduction: The purpose of this study was to investigate whether selective cyclooxygenase (COX) inhibitors promote paclitaxel-induced apoptosis in taxane-resistant ovarian cancer cells by suppressing MDR1/P-gp expression.

Methods: Taxane-resistant ovarian cancer cell lines (HeyA8-MDR and SKOV3ip2-TR) were cultured with paclitaxel alone or combined with a selective inhibitor for COX-1 (SC560) or COX-2 (NS398). The ability of COX inhibitors to inhibit growth of taxane-resistant ovarian cancer cells and the efficacy of PGE2 supplementation were measured by MTT assays. Cells were stained with propidium iodide and analyzed the percentage in sub-G1 stage were measured by flow cytometry. The expression patterns of MDR1/P-gp and cleaved PARP were examined by reverse transcription-polymerase chain reaction (RT-PCR) and immunoblot analysis.

Results: P-glycoprotein (P-gp) was upregulated in taxane-resistant ovarian cancer cells compared to paired paclitaxel-sensitive ovarian cancer cells. MTT assay showed that selective COX inhibitors, SC560 and NS398, significantly enhanced the cytotoxic effects of paclitaxel in taxane-resistant ovarian cancer cells via a prostaglandin-independent mechanism. These increased apoptotic effects were further verified by measuring an increased percentage of cells in sub-G1 stage using flow cytometry. Selective COX inhibitors suppressed MDR1 and P-gp expression. Moreover, combined treatment with paclitaxel and selective COX inhibitors increased PARP cleavage in taxane-resistant ovarian cancer cells.

Conclusions: Selective COX inhibitors significantly promote paclitaxel-induced cell death in taxane-resistant ovarian cancer cells in a prostaglandin-independent manner. As a chemosensitizer, COX inhibitors could be potent therapeutic tools to promote paclitaxel sensitization of taxane-resistant ovarian cancers by suppressing MDR1/P-gp, which is responsible for the efflux of chemotherapeutic agents.
Poster Presentation: Ovarian Cancer

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**METRONOMIC DHP107 (ORAL PACLITAXEL) SHOWS ANTI-TUMOR EFFECTS IN AN ORTHOTOPIC MOUSE MODEL OF OVARIAN CANCER**


*Cheil General Hospital and Women's Healthcare Center, Kwandong University College of Medicine, Seoul, Republic of Korea*

**Introduction:** The purpose of this study was to compare the *in vivo* anti-tumor efficacy of a clinical, mucoadhesive, lipid-based, oral paclitaxel formulation (DHP107) with traditional, intravenous paclitaxel using an orthotopic mouse model of chemotherapy-sensitive SKOV3ip1 ovarian cancer.

**Methods:** To determine the therapeutic dose of oral paclitaxel, DHP107 was administered p.o. to female athymic nude mice at 0, 25, and 50 mg/kg twice per week. Control mice received intraperitoneal (IP) injections of paclitaxel at a traditional dose of 5 mg/kg. To evaluate the potential therapeutic effect of metronomic DHP107 chemotherapy, mice received DHP107 50 mg/kg once per week p.o., which was compared with 0 and 25 mg/kg twice per week.

**Results:** Mice that received p.o. administration at dose of 25 mg/kg and 50 mg/kg DHP107 twice per week showed significant decreases in tumor weight relative to vehicle-treated controls (*P*< 0.01, both). Low dose DHP107 (25 mg/kg) twice per week was more effective than IP paclitaxel (5mg/kg once a week) and high dose DHP107 (50 mg/kg once per week) at inhibiting tumor growth (88%, 82%, and 36% decrease in tumor weight; *P*< 0.01, *P*< 0.01, and *P*< 0.2, respectively).

**Conclusions:** Metronomic oral chemotherapy with DHP107 showed anti-tumor efficacy *in vivo* similar to systemic paclitaxel.
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Poster Presentation: Ovarian Cancer

OVARIAN LYMPHOMA IN PREGNANCY: CASE REPORT IN DR CIPTO MANGUNKUSUMO GENERAL HOSPITAL JAKARTA

B. Pradipta¹, D. Pramusinto¹, A. Darma Putra¹, S. Effendy²

¹Obstetrics and Gynecology, ²Hematology Oncology Division- Internal Medicine Department, Faculty of Medicine University of Indonesia, Jakarta, Indonesia

Objective: Improving skill and knowledge in managing a rare case of ovarian lymphoma

Method: Case report

Results: A 31 y.o female Gravida 1 with history of primary infertility 4 years came with abdominal and epigastric pain. She admitted 5 mo of pregnancy and according to 1st trimester Ultrasound was 23 wga. In physical exam, we found abdominal pain and defans muscular. Obstetrical examination revealed that the fetal heart rate was undetectable. On US examination we suspected a pregnancy with IUFD and a torsion of uterine fibroid and performed emergency laparotomy. Intraoperatively, we found ascites, gravid uterine, torsion on right ovarian tumor, lobulated mass from left ovary, hydrosalphing of the left tube, omental cake and suspected a bilateral malignancy of ovaries. Histerotomy was then performed and baby IUFD not macerated 550 gram was delivered. We decided to do a HT-SOB and omentectomy. The histopathological showed infiltration of lymphoid in left and right ovaries, fallopian tube and omentum. Tumor cells spreaded diffusely with big cells pattern and hyperchromatic nucleus and starry sky appearance. These correspond to Lymphoma malignum of internal genitalia. Immunohistochemistry correspond to non Hodgkin B cell Burkitt lymphoma.

Conclusion: Lymphoma can involve all genitourinary organs. Most pregnant women with NHL have aggressive and advanced-stage disease. Because lymphomas presenting as ovarian tumors carry a poor prognosis, standard chemotherapy should not be delayed. Given the uncommon presentation of ovarian lymphoma, a differential list should be thought for ovarian mass. Pathologically, germ cell tumors, undifferentiated carcinoma, and metastatic cancer are potential differential diagnoses.
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Poster Presentation: Ovarian Cancer
FALLOPIAN TUBE CARCINOSARCOMA: REPORT OF TWO CASES AND REVIEW OF LITERATURE

L. Casey
Histopathology, University College London Hospital, London, UK

Introduction: Malignant mixed mullerian tumours of the fallopian tube are rare with fewer than sixty cases reported in the literature to date. The prognosis is poor and the preferred treatment modality remains contentious.

Objective: Two cases of primary fallopian tube carcinosarcoma will be presented along with a review of the existing literature.

Case report: Case one is that of a sixty-five year old female who presented with a 3 month history of rusty PV discharge following a stapled transanal resection for obstructed defecation. Initially presumed to be an iatrogenic rectovaginal fistula, imaging revealed a complex adnexal mass with extensive pelvic disease. The patient underwent total abdominal hysterectomy, bilateral salpingo-oophorectomy, left hemicolectomy and omentectomy. She was diagnosed with FIGO stage IIIC carcinosarcoma of the left fallopian tube and received carboplatin chemotherapy followed by palliative radiotherapy for recurrent disease. She died within fifteen months of diagnosis. Case two is that of a sixty-one year old female who presented with a brief history of post-menopausal bleeding and was found, on imaging, to have a large solid-cystic left adnexal mass. She underwent total abdominal hysterectomy, bilateral salpingo-oophorectomy and omentectomy before being diagnosed with FIGO stage IB carcinosarcoma of the left fallopian tube. The patient received adjuvant carboplatin and paclitaxel chemotherapy with good response at eleven months post diagnosis.

Conclusion: Prognosis in fallopian tube carcinosarcoma is linked to stage at diagnosis, however, even in cases of apparent stage I disease, surgical intervention alone is insufficient and adjuvant treatment with chemotherapy and/or radiotherapy is advocated.
**Poster Presentation: Ovarian Cancer**

**FALLOPIAN TUBE CARCINOSARCOMA: REPORT OF TWO CASES AND REVIEW OF LITERATURE**

L. Casey

*Histopathology, University College London Hospital, London, UK*

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Poster Presentation: Ovarian Cancer
SINGLE PORT GASLESS LAPAROSCOPIC-ASSISTED MINI-LAPAROTOMIC OVARIAN RESECTION (SP-GLAMOR): REASONALBE TREATMENT FOR HUGE CYSTIC OVARIAN TUMOR WITH SUSPICION OF MALIGNANCY

C.W. Lee¹, M.J. Song², S.J. Lee³, J.H. Yoon³

¹Obstetrics and Gynecology, Incheon St. Mary’s Hospital, The Catholic University of Korea, Incheon,
²Obstetrics and Gynecology, Daejeon St. Mary’s Hospital, The Catholic University of Korea, Daejeon,
³Obstetrics and Gynecology, St. Vincent Hospital, The Catholic University of Korea, Suwon, Republic of Korea

Objectives: Laparoscopic surgery has some limitations in surgery for ovarian cancer, such as port site metastasis induced by chimney effect. That reason makes the gasless laparoscopy and mini-laparotomy gain power, which overcomes the disadvantages of laparoscopic surgery. Herein we report case series that huge ovarian cystic tumors were successfully removed by “Single Port Gasless Laparoscopy Assisted Mini-laparotomic Ovarian Resection” (SP-GLAMOR), the limitation of which were conquered.

Methods: We reviewed the medical records of 31 women who visited Department of Obstetrics and Gynecology, St. Vincent Hospital from April 2006 until April 2011 and were diagnosed as huge cystic ovarian mass with suspicion of malignancy on the imaging study and tumor makers. After diagnosis, all of the women underwent single port laparoscopy assisted mini-laparotomic ovarian resection (SP-GLAMOR) for the treatment of the disease.

Results: The median maximal diameter of cyst, median size of the incision, median surgical duration and median volume of blood loss were 20 cm (range 10.7-45 cm), 3 cm (range 2.5-4cm), 100minutes (range 45-270 minutes) and 100 mL (range 30-500mL), respectively. Four cases were diagnosed as malignant disease in the result of frozen sections during operations and we converted the surgical procedure into open abdominal surgery. No major intraoperative or postoperative complications occurred. Four patients mentioned above also underwent chemo-therapy. Follow-up was performed so far.

Conclusions: This surgical procedure is feasible and potentially allows faster recovery and better cosmetic results. Large studies with long term follow-up are needed to confirm the effectiveness of this approach.
Poster Presentation: Ovarian Cancer

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Poster Presentation: Ovarian Cancer
A CASE SERIES OF BEVACIZUMAB AND CHEMOTHERAPY IN PATIENTS WITH ADVANCED SEROUS EPITHELIAL OVARIAN CANCER IN BELARUS

H. Anishchanka¹, S. Shelkovich¹, Y. Demidchik², E. Baranov²
¹Department for Oncology, ²Belarusian Medical Academy for Postgraduate Education, Minsk, Belarus

Background: Ovarian cancer is the most lethal gynecologic malignant tumor. The addition of bevacizumab to standard chemotherapy prolongs progression-free survival in the first-line treatment of epithelial ovarian cancer, but its optimal clinical setting is uncertain. We assessed the safety and the activity of bevacizumab in the first-line treatment of advanced serous epithelial ovarian cancer.

Methods: 6 patients with advanced serous epithelial ovarian cancer had been treated by us. All patients had undergone debulking surgery followed by standard chemotherapy. The debulking was optimal in 2 patients (33%) and suboptimal in 4 patients (67%). Bevacizumab was administered during 3 cycles, 7.5mg/kg q21 days in combination with carboplatin/paclitaxel. The direct effect was assessed by CA-125 and contrast enhanced CT.

Results: The CA-125 median baseline was 372.6 U/ml and decreased to 7.6 at nadir. According to Response Evaluation Criteria in Solid Tumors (RECIST) tumor response was complete in 4 (67%) and partial in 2 (33%) cases. Results were supported histologically by 'second-look' surgery. Grade 3 adverse event related to bevacizumab was hypertension (n=2), which was successfully treated.

Conclusions: Bevacizumab in combination with standard chemotherapy was active in the first-line treatment of advanced serous epithelial ovarian cancer and well-tolerate. Study continues to find out optimal regimen of bevacizumab administration.
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Poster Presentation: Ovarian Cancer
MIRNAS ASSOCIATED WITH CISPLATIN RESISTANCE IN OVARIAN CANCER CELLS

N.W. Li, H.J. Wang, L.Y. Yang, X.B. Jia, C. Chen

Obstetrics and Gynecology, West China Second Hospital, Sichuan University, Chengdu, China

Objective: Resistance to cisplatin-based chemotherapy has been a major cause of treatment failure in ovarian cancer patients. Accumulating studies have reported that miRNAs may be a potential target of genetic therapy for drug resistance in cancer. Therefore, this study aimed to screen the differentially expressed miRNAs in ovarian cancer cisplatin-resistant cell lines, and to explore their function.

Method: MiRNA microarray was used to detect the differentially expressed miRNAs in ovarian cancer cisplatin-resistant (SKOV3/DDP, A2780/DDP) cell lines compared with their parental cell lines (SKOV3, A2780s). The result was verified by real-time PCR. MTT assay was applied to measure the cell proliferation of cells before or after transfection. Western blot was performed to examine the level of P-glycoprotein in A2780s with transfection or not.

Results: Twenty-four miRNAs (miR-130a, miR-374a, miR-182, miR-200c-3p, miR-9-5p, etc) were upregulated in SKOV3/DDP, A2780/DDP cells, eight miRNA (miR-146a, miR-155-5p, miR-21-3p, etc) were downregulated. The expression of miR-130a, miR-374a, miR-182 detected by real-time PCR was respectively 30.51, 2.06, 1.27 times higher in A2780/DDP cells than in A2780s cells, and miR-146a was 133.56 times lower, which was in accordance with the microarray. MiR-130a and miR-374a mimics enhanced the cisplatin resistance of A2780s cells, while miR-182 mimics and miR-146a inhibitor had no obvious effect on cisplatin resistance. Furthermore, we found that the expression of miR130a and the level of P-glycoprotein in 2780s cell was positively correlated.

Conclusion: MiR-130a, miR-374a played an important role in regulating the cisplatin resistance of ovarian cancer, but not all these differentially expressed miRNAs showed this effect. More in-depth research should be performed to clarify the network between miRNA and cisplatin resistance in ovarian cancer.
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Poster Presentation: Ovarian Cancer
GLOBAL VARIATION OF DISTRIBUTION OF HISTOLOGIC SUBTYPE IN EPITHELIAL OVARIAN CANCER: A SYSTEMIC REVIEW

K. Chao1,2, P.-L. Sung3, K.-C. Wen3, Y.-M. Shyu1, S.-Y. Wang1, M.-S. Yen1, Y.-J. Chen1, C.-M. Chuang1

1Obstetrics and Gynecology, Taipei Veterans General Hospital, 2Institute of Public Health, National Yang-Ming University, 3Division of Gynecologic Oncology, Department of Obstetrics and Gynecology, Taipei Veterans General Hospital, Taipei, Taiwan R.O.C.

Introduction: Currently, based on histopathology, immunohistochemistry, and molecular genetic analysis, at least five main types of epithelial ovarian carcinomas are identified: high-grade serous carcinomas (HGSC) (70%), endometrioid carcinomas (EC) (10%), clear cell carcinomas (CCC) (10%), mucinous carcinomas (MC) (3%), and LGSC (< 5%). However, worldwide statistics about the variation of distribution in histology subtypes has never been investigated which is important for application of clinical trial results to other areas or ethnics.

Materials and methods: A comprehensive systematic review was conducted to evaluate the worldwide distribution of histological subtypes of epithelial ovarian cancer. Cancer registry database, randomized controlled trial, and molecular epidemiology studies were searched. Two reviewers independently assessed all titles and abstracts identified from the searches for potential relevance to the review questions. The inclusion and exclusion criteria were: population - patients with histologically-confirmed epithelial ovarian cancer with specified distribution; and study design - registry database, randomized controlled trial, and molecular epidemiology studies were all included.

Results: A total of 37 studies encompassing 4 continents were included. From the results of coefficient of variation, mucinous and clear cell carcinoma seem to have higher distribution variability than that of serous and endometroid worldwide.

Discussion: Histological subtype distribution is not relatively uniform among all areas. Bridging study should be considered when try to apply the results of clinical trial results to other areas or countries for epithelial cancer. Data for some countries maybe unstable due to low case numbers. We appeal to setup a platform to share the subtype distribution information worldwide.
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Poster Presentation: Ovarian Cancer
ENDOMETRIOID CELL CARCINOMA OF THE OVARY IN DR CIPTO MANGUNKUSUMO HOSPITAL, JAKARTA, INDONESIA

R. Liem\textsuperscript{1,2}, A.D. Putra\textsuperscript{1,2}, S. Purbadi\textsuperscript{1,2}, - Andrijono\textsuperscript{1,2}, H. Winarto\textsuperscript{1,2}

\textsuperscript{1}Faculty of Medicine, University of Indonesia, \textsuperscript{2}Obstetrics and Gynecology, Dr Cipto Mangunkusumo Hospital, Jakarta, Indonesia

\textbf{Background:} Endometrioid Cell Carcinoma (ECC) of the ovary accounts for 10-20\% of total ovarian carcinoma cases. Most of the patients were in their fifth or sixth decade of life, although it might be found in younger people. It is commonly detected in advance stage, thus leads to a poor prognosis. In this study, the incidence of ECC and its clinicopathological characteristics will be discussed.

\textbf{Aim:} To describe the clinicopathological characteristics, management, and results of the management of ECC patients.

\textbf{Methods:} The data was taken from DR.Cipto Mangunkusumo Hospital Cancer Registry from January 1\textsuperscript{st} 2009 to 31\textsuperscript{st} May 2012. All ECC patients were included. Missing data were completed based on data in medical record. The data is described based on clinicopathological characteristics, management, and results of management.

\textbf{Results:} There were 42 endometrioid ovarian carcinoma patients, with age range from 32 to 67 years old and average age at 49.8 years old. Most of them(26 out of 42) were diagnosed in late stage(stage III and IV), 2 patients in stage IIC, 6 in stage I, and 8 patients had undetermined staging. Metastasis cases were found in 4 patients. After having surgical procedures, there were 29 patients underwent chemotherapy. From those 29, 6 patients got relapse diseases, and 6 had progressive diseases.

\textbf{Conclusion:} ECC patients in DR Cipto Mangunkusumo hospital were mostly in their fifth decade of life, and were diagnosed at advance stage. After treatment, 17 patients were free of disease at the follow up time.
Poster Presentation: Ovarian Cancer
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K. Indra¹,², H. Winarto¹,²

¹Faculty of Medicine, University of Indonesia, ²Obstetrics and Gynecology, Dr Cipto Mangunkusumo Hospital, Jakarta, Indonesia

Background: Ovarian cancer is the number one death-causing cancer. Its main path of spreading is transcoelomic, involving the abdominal viscera, peritoneum and omentum. Omentum of early stage ovarian cancer patients sometimes do not show any macroscopic lesion. Yet, FIGO stated that omentectomy is mandatory. By itself, omentum is an organ of many functions, mainly acts as a defence mechanism against infection, and useful in many surgical procedures. Omentectomy may increase the risk of bleeding and injury to intestines and spleen. Omentectomy may also increase the length of surgery. Considering the various result among studies, the author wants to find the incidence of metastasis of epithelial ovarian cancer on omentum in Indonesia, especially in Dr. Cipto Mangunkusumo Hospital.

Method: This is a cross sectional study, that was conducted in Cipto Mangunkusumo Hospital from 2009-2012 using medical records from January 2009 - December 2012.

Results: Out of the 22 preliminary samples, 8 were dropped due to incomplete data. The overall incidence of epithelial ovarian cancer metastases in omentum is 64.28% (9/14); incidence of early stage epithelial ovarian cancer metastases in omentum is 0% (0/2) and incidence of advanced epithelial ovarian cancer metastases in omentum is 75% (9/12).

Conclusion: Apparently as already suspected, the trend of incidence of metastases of ovarian cancer is increasing with the stage of the disease. Yet this is still a preliminary study and author needs to conduct further research to reach a full conclusion.
Poster Presentation: Ovarian Cancer
OMENTAL METASTASIS OF EPITHELIAL OVARIAN CANCER IN CIPTO MANGUNKUSUMO HOSPITAL 2009 - 2012
K. Indra¹,², H. Winarto¹,²
¹Faculty of Medicine, University of Indonesia, ²Obstetrics and Gynecology, Dr Cipto Mangunkusumo Hospital, Jakarta, Indonesia

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**Poster Presentation: Ovarian Cancer**

**IMPACT OF CHEMOTHERAPY BEYOND THE THIRD LINE IN PATIENTS WITH RECURRENT EPITHELIAL OVARIAN CANCER**

E. Kalbacher, L. Mansi

*Medical Oncology, CHU Besancon, Besançon, France*

**Objectives:** The goal of this study was to determine the benefit in terms of Time to Disease Control (TDC) achieved by the succession of chemotherapy lines beyond the third line in patients treated for recurrent epithelial ovarian cancer (EOC). Secondary objectives were to identify patients who benefit from treatments beyond three lines and to estimate the overall survival.

**Methods:** A total of 122 patients were treated by more than 3 lines of chemotherapy between 1992 and 2010 in our center. The evaluation of benefit obtained by each chemotherapy lines was based on TDC. Duration TDC is defined by the interval between time of treatment beginning and date of progressive disease or death.

**Results:** Median durations of TDC was 4.15 (0 - 54.7), 4 (0 - 21.7), 3.34 (0 - 29.6), 4.97 (0 - 29.2), and 3.13 months (0 - 15), in fourth to eighth line respectively. TDC was longer than 6 months in 34% to 40%. The most important factor influencing TDC length beyond the third line was the TDC duration observed in the 2 previous lines of therapy. Median OS after the third line was 15.3 months (95% CI, 12 to 20 months). Factors associated with longer OS were performance status lower than 2 (p=0.0058), no hepatic and pulmonary metastasis (p=0.009,p=0.0003) and platinum sensibility (p=0.04).

**Conclusion:** One can consider that those results might justify the administration of chemotherapy beyond the third line, when the 2 previous lines are effective and let a disease control longer than six months.
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Poster Presentation: Ovarian Cancer
CURRENT SITUATION OF OVARIAN CANCER SURVIVAL

S.S. Mansur, S. Purbadi, A. Gazali

University of Indonesia, Jakarta, Indonesia

Epithelial ovarian cancer is the fifth most frequent cause of cancer death in women and remains the leading cause of gynecologic cancer-related deaths world-wide. The main treatment for advanced stage ovarian cancer is surgery and chemotherapy. Different outcomes were observed in patients with different surgical procedure and given or not the chemotherapy.

Material and method: Forty patients were diagnosed as ovarian cancer in 2007-2009 registries from Cipto Mangunkusumo Hospital. We did follow up for patients latest condition by phone or mail. We record the initial diagnosis, surgery procedure, pathology result, chemotherapy given, and total series of chemotherapy.

Then we compared each staging group for survival with different surgery procedure and chemotherapy given.

Result: Average age of the patients was 48.23 years with youngest age was 28 years old and the oldest was 76 years old.

Overall survival time for stage IC 37.78 months (mean, CI 21.07 - 54.50, SE 8.53), stage IIC 40.82 months (mean, CI 12.71 - 68.93, SE 14.34), and stage IIIIC 30.61 months (mean, CI 20.27 - 40.96, SE 5.28). From twenty-three stage IIIIC patients, fourteen patients received incomplete chemotherapy cycle or not received chemotherapy at all, had survival time for 18.1 months (mean, CI 13.12 - 23.07, SE 2.54). Nine patients received full cycle chemotherapy using CP agents had higher survival time for 46.48 months (mean, CI 27.72 - 65.23, SE 9.57) with p = 0.02.

Conclusion: From this study, survival seemed to correlate with the possibility of administering chemotherapy.
**Poster Presentation: Ovarian Cancer**  
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*University of Indonesia, Jakarta, Indonesia*

Epithelial ovarian cancer is the fifth most frequent cause of cancer death in women and remains the leading cause of gynecologic cancer-related deaths world-wide. The main treatment for advanced stage ovarian cancer is surgery and chemotherapy. Different outcomes were observed in patients with different surgical procedure and given or not the chemotherapy.

**Material and method:** Forty patients were diagnosed as ovarian cancer in 2007-2009 registries from Cipto Mangunkusumo Hospital. We did follow up for patients latest condition by phone or mail. We record the initial diagnosis, surgery procedure, pathology result, chemotherapy given, and total series of chemotherapy.

Then we compared each staging group for survival with different surgery procedure and chemotherapy given.

**Result:** Average age of the patients was 48.23 years with youngest age was 28 years old and the oldest was 76 years old.

Overall survival time for stage IC 37.78 months (mean, CI 21.07 - 54.50, SE 8.53), stage IIC 40.82 months (mean, CI 12.71 - 68.93, SE 14.34), and stage IIIC 30.61 months (mean, CI 20.27 - 40.96, SE 5.28). From twenty-three stage IIIC patients, fourteen patients received incomplete chemotherapy cycle or nor received chemotherapy at all, had survival time for 18.1 months (mean, CI 13.12 - 23.07, SE 2.54). Nine patients received full cycle chemotherapy using CP agents had higher survival time for 46.48 months (mean, CI 27.72 - 65.23, SE 9.57) with p = 0.02.

**Conclusion:** From this study, survival seemed to correlate with the possibility of administering chemotherapy.
Poster Presentation: Ovarian Cancer
PREDICTION OF COMPLETE CYTOREDUCTION IN PLATINUM-SENSITIVE RECURRENT OVARIAN CANCER: FDG-PET/CT AND STAGING-LAPAROSCOPY VS. AGO-SCORE
F. Fanfani1, G. Monterossi1, A. Fagotti2, M. Petrillo1, G. Vizzielli1, L.C. Turco1, G. Scambia1
1Department of Obstetrics and Gynecology, Catholic University of the Sacred Heart, Rome, 2Department of Obstetrics and Gynecology, University of the Study of Perugia, Perugia, Italy

Background and aims: To investigate the best diagnostic and staging strategy for platinum-sensitive recurrent ovarian cancer.

Methods: The negative predictive value, specificity, positive predictive value, sensitivity, and accuracy rates of the fluorine-18-fluorodeoxyglucose positive emission tomography computed tomography (FDG-PET/CT) and staging laparoscopy versus AGO-score evaluation in identifying surgically treatable/untreatable patients are assessed in a consecutive series of 155 recurrent ovarian cancer cases. Moreover, the diagnostic performance of each staging procedure in the evaluation of the number of nodules is analyzed.

Results: The negative predictive value of the laparoscopy staging was 98.0%, specificity 84.0%, positive predictive value 88.0%, sensitivity 98.0%, and accuracy rate 92.0%. Negative predictive value, specificity, positive predictive value, sensitivity, and accuracy rate of AGO-score evaluation were 84.0, 60.0, 66.0, 94.0 and 69.0%, respectively. Combined radiological and laparoscopic evaluation showed a negative predictive value of 91.0%, a specificity of 88.0%, a positive predictive value of 91.0%, a sensitivity of 94.0%, and an accuracy rate of 92.0%.

Conclusions: The combination of FDG-PET/CT and staging laparoscopy has a significant effect on the multimodal approach to the population of patients with recurrent ovarian cancer, while AGO-score evaluation alone, does not have a role for identifying surgically treatable/untreatable patients. FDG-PET/CT and staging laparoscopy should be considered complementary, because of the potential of each one to identify a different setting of the disease.
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Poster Presentation: Ovarian Cancer
MALIGNANT PLEURAL EFFUSION: IS IT THE REAL FACTOR FOR STAGE AND PROGNOSIS IN EPITHELIAL OVARIAN CANCERS?

Ob & Gy, Seoul National University Hospital, Seoul, Republic of Korea

Objectives: We aimed to define the prognosis and clinical patterns of disease according to site-specific spread of advanced ovarian cancer.

Methods: Data from all consecutive patients with stage IIIC and IV epithelial ovarian cancer, from 2001 through 2010, were collected and analyzed retrospectively. The patients underwent primary cytoreductive surgery and platinum-based chemotherapy. Survival rates were compared among the patients with peritoneal, pleural, and other distant organ metastases. Statistical analyses included the χ2 test and Kaplan-Meier curves with log-rank tests.

Results: Review of our patient database identified 325 patients with stage IIIC and IV ovarian cancer, and 246 of them were evaluable without follow-up loss: mean age, 54.7 years (range, 18-84 years). The group with extrapelvic disease was presented as follows: extrapelvic intraperitoneal metastases (75%), exclusive pleural effusion (7%), other extraperitoneal metastases (18%). Age, tumor histology, grade, and rate of optimal surgery were similar in the 3 groups. The median progression-free survival (PFS) was better in the patients with stage IIIC (p = 0.040). However, patients having stage IV disease by pleural cytology only had PFS benefit compared with patients having other distant metastases (median survival, 13 months vs. 7 months, p=0.009). Meanwhile, there was no significant difference of PFS between patients with stage IIIC and ones with exclusive pleural effusion (median survival, 13 months vs. 14 months, p=0.764).

Conclusions: The PFS was not significantly different between the patients with stage IIIC and ones with exclusive pleural effusion, while, PFS was shorter when patients had extraperitoneal solid metastases.
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Poster Presentation: Ovarian Cancer

CLINICAL OUTCOMES OF LAPAROSCOPIC PROCEDURE FOR EARLY STAGE OVARIAN CANCER

Cheil General Hospital and Women's Healthcare Center, Kwandong University College of Medicine, Seoul, Republic of Korea

Objective: To investigate the surgical and oncological outcomes of laparoscopic surgery for early stage ovarian cancers compared with abdominal surgery, and determine risk factors for tumor recurrence.

Methods: Data of the patients who underwent surgical treatment for ovarian cancer newly diagnosed between January 2007 and August 2012 was retrospectively extracted from the medical records. We included FIGO stage I and II ovarian cancer involving both borderline and invasive ovarian cancers.

Results: Of 306 patients with stage I or II ovarian cancer, initial surgical management was performed by laparotomy in 194 (63.4%) and laparoscopy in 112 (36.6%) patients. Between laparotomy and laparoscopy group, there was no significant difference in the rate of residual tumor (1% vs. 1.8%, p=0.625) and the number of both pelvic (26.2 vs. 28.5, p=0.484) and paraaortic lymph nodes retrieved (20.2 vs. 18.5, p=0.467). During the mean follow-up period of 30 months, recurrence was observed in 5 patient, but the distribution was not significantly different between two groups (p=1.0). Mean disease-free survival was 140 (95%CI 133-148) months and 100 (95%CI 96-104) months in laparotomy and laparoscopy group, respectively, without statistical significance (p=0.950). In multivariate logistic regression, the single prognostic factor regarding tumor recurrence was an adjuvant intraperitoneal chemotherapy (relative risk: 0.033, 95%CI 0.024-0.854).

Conclusion: Our data suggest that laparoscopic surgery can be an acceptable surgical mode for early stage ovarian cancer given the fact that it provides comparable outcome in the sense of not only surgical but also oncological results.
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Poster Presentation: Ovarian Cancer
EXOME SEQUENCING, COPY NUMBER VARIATION AND GENE EXPRESSION ANALYSIS OF MATCHED PRIMARY AND METASTATIC OVARIAN TUMORS

N. Halabi1, J. Malek1, B. George1, E. Al-Dous1, Y. Mohamoud1, E. Mery2, R. Huang3, A. Martinez2, G. Ferron2, R. Lis4, J.-P. Thiery5, D. Querleu6, C. Raynaud1, E. Jouve1, L. Roger2, A. Rafii1

1Weill Cornell Medical College, Doha, Qatar, 2Institut Claudius Regaud, Toulouse, France, 3Cancer Science Institute of Singapore, Singapore, Singapore, 4Weill Cornell Medical College - Qatar, Doha, Qatar, 5Institute of Molecular and Cell Biology, Singapore, Singapore, 6McGill University, Montreal, QC, Canada

Introduction: To determine factors that may be involved in ovarian cancer metastasis we have carried out a combined exome sequencing, copy number variation and gene expression study of matched primary and metastasis biopsy samples of human patients.

Methods: Sample biopsies were collected at the Institut Claudius Regaud from primary ovarian tumors, peritoneum and/or lymph node metastasis. Exome and RNA sequencing was done using Illumina capture and sequencing technology. Copy number variation (CNV) and gene expression data was collected using Affymetrix SNP 6.0 chips and Genechip 1.0 ST arrays.

Results: Exome sequencing revealed a broad mutational spectrum with enrichment in proliferation and adhesion genes, identified metastasis specific genes and allowed estimation of relative metastasis time. CNV analysis revealed complex changes in multiple loci with metastasis showing less diversity than primary tumors. Pathway analysis of CNV data showed enrichment in genes in the JAK-STAT and cytokine pathways. Functional effects of both exome and CNV data were confirmed by gene expression data with expression levels correlated with copy number state. Gene expression pathway analysis also revealed enrichment in genes affecting adhesion and proliferation.

Conclusion: Altogether, our data show a more than expected diversity in genetic and transcriptional changes in both primary and metastatic tumors with metastasis being less diverse in these changes. Despite the diversity on the gene level, pathway analysis revealed enrichment of specific pathways including cell adhesion and cell proliferation. Finally, our data also identified specific factors involved in metastasis which are excellent candidates for further study.
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Poster Presentation: Ovarian Cancer
USE OF LIPOSOMAL ENCAPSULATED DOXORUBICIN CITRATE (LEDC) AS SINGLE AGENT IN PLATINUM RESISTANT OVARIAN CANCER PATIENTS


Campus Bio-Medico University of Rome, Roma, Italy

Background: Treatment of patients with platinum resistant ovarian cancer is not a standard of care option. Several new compounds have been developed, but unfortunately with low activity in this subgroup of patients. Our group previously demonstrated that Liposomal Encapsulated Doxorubicin Citrate (LEDC) was an effective and well tolerated treatment for gynecological malignancies.

Aims: Confirming these results in patients affected by platinum-resistant ovarian cancer patients.

Methods: Consecutive patients affected by epithelial ovarian cancer that recurred within six months of completing platinum and paclitaxel chemotherapy, were enrolled in this study. LEDC was administered at 60 mg/m² every 21 days as 1-hour infusion for 6 cycles. A dose reduction to 40 mg/m² was applied in the event of grade 3 or 4 toxicities. Toxicity was graded according to the National Cancer Institute Common Toxicity Criteria Version 3. Response was graded according to Response Evaluation Criteria In Solid Tumors (RECIST).

Results: After 6 cycles of chemotherapy, an objective response rate of 28% was achieved (1 complete and 6 partial responses). Additionally, 6 patients (24%) maintained disease stabilization. Two-year follow-up showed a median PFS of 5 months (95% confidence interval, 3-7) with a median overall survival of 10 months (95% confidence interval, 5-15). Only 4 patients (16%) needed of dose reduction due to G3-G4 hematologic toxicity. Moreover, G2 neutropenia (36%)and anemia (20%) were the most common side effects. No cutaneous toxicity were reported.

Conclusions: LEDC as single agent is well tolerated and a valid alternative in platinum resistant patients affected by ovarian cancer relapse.
Poster Presentation: Ovarian Cancer

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Poster Presentation: Ovarian Cancer
A SCORING SYSTEM OF COMBINATION OF ULTRASONOGRAPHY, TUMOR MARKER HE4, AND MENOPAUSAL STATUS AS A SCREENING METHOD FOR OVARIAN NEOPLASM

F.P. Harahap, S. Dina, H.S. Siregar, M.F. Sahil, B.R. Hadibroto, H. Sihite
Obstetrics and Gynecology, Faculty of Medicine University of North Sumatera, Medan, Indonesia

Background: There are several scoring system to improve diagnostic performance in epithelial ovarian neoplasm. Therefore, this study was conducted to assess how a new scoring system can be better to differentiate between malignant and benign epithelial ovarian neoplasm prior to surgery.

Methods: A diagnostic study using a cross sectional approach was conducted in women with pelvic mass scheduled for surgery. Preoperative morphologic sonography, menopausal status, and serum level of HE-4 were analyzed in 56 patients. Cut-off point for morphological sonography scoring was 9 or more with 100% sensitivity and 98.8% specificity. Cut-off points for serum level of HE-4 (112.6 pM) was used at 92.9% sensitivity and 94.6% specificity. Scoring system method with prognostic study was conducted to create a new scoring system to differentiate between malignant and benign epithelial ovarian neoplasm.

Results: A scoring system using combination of morphologic sonography, menopausal status, and serum level of HE-4 shows the maximum score 4 can predict the probability of epithelial ovarian malignancy up to 99.8%. Score 1, 2, and 3 can predict the probabilities up to 38.85%, 39.95%, and 79.49% respectively. The minimum score was 0 still can predict the probability of epithelial ovarian malignancy up to 18.48%.

Conclusion: A scoring system using combination of morphologic sonography, menopausal status, serum level of HE-4 were considered to improve the patient referral system.
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Poster Presentation: Ovarian Cancer

SURGICAL CYTOREDUCTION IN ADVANCED OVARIAN CANCER: EXPERIENCE AT DEPTT. OF GYNAE ONCOLOGY, BLK CANCER CENTRE, BLK SUPERSPECIALITY HOSPITAL, NEW DELHI

R. Joshi¹, R. Acharya², A. Agarwal³, D. Mishra⁴, R. Rangarao³

¹Gynecologic Oncology, ²GI Oncology, ³Medical Oncology, ⁴Oncopathology, BLK Cancer Centre, New Delhi, India

To evaluate the feasibility of achieving optimal status in Primary and Interval Surgical Cytoreduction in advanced Ovarian Cancer of stage IIIC & stage IV, the a Surgical Procedures performed and related Morbidity.

Forty patients, Stage IIIC (32) and Stage IV (8) epithelial Ovarian Cancer were analysed retrospectively who underwent cytoreductive surgery between May 2011 to October 2012 at department of Gynae Oncology, BLK Cancer Centre, New Delhi. All had pre-operative metastatic work up with CECT whole Abdomen, X-Ray / CT Chest. Treatment decided in Gynaecologic Oncology Joint Clinic. Optimal Status was defined as the residual disease less than 1 cm. Paclitaxel 80 mg/m² on D1/8/15 & Carboplatin AUC 6 on D1 was given as adjuvant or neoadjuvant chemotherapy.

Age range 24-81 Yrs, median age 54 Yrs. Papillary serous carcinoma common histology (19) Optimal status was achieved in 20/24 cases (80%) in Primary and 12/16 (75%) in Interval cytoreduction. Pathological CR: 4 (25%) Surgical procedures included small & large bowel resection anastomosis in 7 respectively. Modified Posterior Exenteration in 7, Diaphragmatic Stripping in 7, peritoneactomies, pelvic & parietal in 39 & 17 cases, bulky para-aortic & Pelvic node resection in 14 & 24 cases. Residual sites were mesentery base, porta hepatis, Posterior diaphragmatic surface near IVC, intestinal surface. Node positivity 45% & 66% in primary & neoadjuvant. Mortality in 7, mortality 1.

Primary & interval optimal Cytoreduction was feasible with radical surgical approach involving multiple surgical procedures which included more than one bowel resections and modified Posterior Exenterations. Retroperitoneal node positivity was high in interval cytoreduction indicating poor response in nodal disease.
Poster Presentation: Ovarian Cancer

SURGICAL CYTOREDUCTION IN ADVANCED OVARIAN CANCER: EXPERIENCE AT DEPTT. OF GYNAE ONCOLOGY, BLK CANCER CENTRE, BLK SUPERSPECIALITY HOSPITAL, NEW DELHI

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Poster Presentation: Ovarian Cancer

**CAN THE PREOPERATIVE HE4 LEVEL PREDICT OPTIMAL CYTOREDUCTION IN PATIENTS WITH ADVANCED OVARIAN CARCINOMA?**

**P. Damiani, R. Angioli, F. Plotti, C. De Cicco Nardone, M. Angelucci, I. Oronzi, R. Montera, E.V. Cafà, D. Luvero, A. Miranda, M. Li Destri, F. Linciano**

*Campus Bio-Medico University of Rome, Rome, Italy*

**Background:** Optimal surgical outcome has been proved to be one of the most powerful survival determinants in the management of ovarian cancer. Actually, there is no general consensus on the preoperatively establishment of cytoreducibility. **Aims:** evaluating if preoperative HE4 is a good predictor for optimal cytoreduction in advanced ovarian cancer and to determine the cut-off level with the maximum prognostic power.

**Methods:** Between January 2011 and June 2012 patients affected by suspicious advanced ovarian cancer were enrolled in the study. All patients had serum CA125 and HE4 measured preoperatively. After a complete laparoscopy to assess the possibility of optimal debulking surgery defined as no visible residual tumor after cytoreduction, patients were submitted to primary cytoreductive surgery (Group A) or addressed to neoadjuvant chemotherapy (Group B).

**Results:** After diagnostic open laparoscopy, 36 patients underwent optimal primary cytoreductive surgery and 21 patients were addressed to neoadjuvant chemotherapy. In our population, based on ROC curve, the HE4 value of 262 pmol/L is the best cut-off to identify candidates to optimal cytoreduction with a sensitivity of 86.1% and a specificity of 89.5% (PPV=93.9% and NPV=77%). In addition, CA125 has a sensitivity of 58.3% and a specificity of 84% at cut-off of 414 UI/mL (AUC is 0.68, 95% C.I.=0.620 to 0.861).

**Conclusions:** Our data indicate that preoperative HE4 is a better predictor for optimal cytoreduction compared to CA125. The best combination in predicting cytoreduction is HE4≤262 pmol/L and ascites < 500mL with a sensitivity of 100% and a specificity of 89.5% (PPV=94% and NPV=100%).
Poster Presentation: Ovarian Cancer
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Poster Presentation: Ovarian Cancer
ECONOMIC IMPACT AMONG FAMILY CAREGIVERS OF ADVANCED OVARIAN CANCER PATIENTS


Campus Bio-Medico University of Rome, Rome, Italy

Background: The life of a family changes in many ways when cancer is diagnosed. These changes regard also financial costs. To the authors’ knowledge, little work has been done to estimate the costs associated with caregiving for cancer patients. Aim: evaluating for the first time in literature the economic changes among family caregivers of advanced ovarian cancer during the first line treatment, including surgery and 6 chemotherapy cycles.

Methods: Between June 2009 to December 2012, advanced ovarian cancer patients’ primary family caregivers were recruited from the Division of Gynecologic Oncology of the University Campus Bio-Medico of Rome within 4 weeks of the patient’s new diagnosis. Caregivers (N=90) reported demographic, medical information and economic cost, such as traveling to and from medical appointments, waiting with patients for appointments, missing work, attending to patients who are hospitalized.

Results: Between June 2009 to December 2012, 90 advanced ovarian cancer patients’ primary family caregivers were enrolled in the study. The mean age of the study cohort was 52.3 years. They reported a 3% of missing work days. The mean cost for all caregivers was 988.529 € per year. So the mean cost of each caregiver was 10.981 €/annually.

Conclusions: This economic analysis of caregiving in advanced ovarian cancer patients reports the significant burden that cancer treatment places on both families and society. These findings underscore the importance, when appropriate, of including valid estimates of the cost of informal caregiving when evaluating the cost-effectiveness of cancer treatments.
**Poster Presentation: Ovarian Cancer**

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Poster Presentation: Ovarian Cancer
IMPACT OF LYMPHADENECTOMY ON STAGING AND DEBULKING STATUS IN EPITHELIAL OVARIAN CANCER PATIENTS

A. Nowakowski¹, M. Cybulski², I. Buda³, K. Suchta⁴, W. Baranowski¹

¹Department of Gynecology and Oncologic Gynecology, Military Institute of Medicine, Warsaw, ²Department of Biochemistry and Molecular Biology, ³Department of Obstetrics and Perinatology, Medical University of Lublin, Lublin, ⁴Department of Gynecologic Endocrinology, Warsaw Medical University, Warsaw, Poland

The role of pelvic and para-aortic lymphadenectomy in treatment of patients with epithelial ovarian cancer (EOC) is still under debate and this procedure is not routinely performed in some oncologic gynecology departments in Poland in cases of EOC.

The aim of this retrospective study was to assess the impact of pelvic and/or para-aortic lymph node removal on staging and debulking status during primary surgery in patients with EOC.

Out of 179 patients with EOC treated at our department between 2004-2011 and identified in our database, the data were sufficient to perform the analysis for 162 women. As a part of primary surgical staging, systematic pelvic and/or para-aortic lymphadenectomy or sampling was performed in 101(62%) of patients. Metastatic lymph nodes were confirmed by histology in 38 (37.6%) and upgraded FIGO stage assessment in 11(10.9%) of patients who underwent lymph node removal. The final FIGO staging structure was as follows: I - 23 (14.2%), II - 11 (6.8%), III - 121 (74.7%) and IV - 7 (4.3%) of patients. R0 resection (no residual tumour), optimal debulking (residual tumor ≤ 1cm), suboptimal debulking (residual tumour > 1cm) was obtained in 69(42.6%), 29(17.9%) and 64(39.5%) of patients respectively. In 25 (24.8%) of women who underwent lymph node removal the debulking status was changed from optimal to R0 or from suboptimal to optimal/R0.

Pelvic and para-aortic lymph node resection is an important part of proper evaluation of the stage of EOC and may positively influence the extent of surgical debulking of patients with EOC.
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Poster Presentation: Ovarian Cancer

HMGB1 IS OVEREXPRESSED IN TUMOR CELLS AND REGULATES TUMOR SURVIVAL AND PROGRESSION IN OVARIAN CARCINOMA PATIENTS

M. Szajnik1,2, M. Luczak3, M. Glura4, M. Szczepanski5,6, E. Markwitz1, M. Spaczynski1

1Department of Gynecology and Gynecologic Oncology, Poznan University of Medical Sciences, Poznan, 2Department of Gynecology and Gynecologic Oncology, Military Institute of Medicine, Warsaw, 3Department of Biochemistry, 4Department of Informatics and Statistics, 5Department of Clinical Immunology, Poznan University of Medical Sciences, Poznan, 6Department of Otolaryngology, Medical University of Warsaw, Warsaw, Poland

Background: HMGB1 and RAGE receptor play a crucial role in tumorigenesis and are implicated in tumor escape phenomena. HMGB1 overexpression has been reported in a variety of human cancer. However, the clinical significance of HMGB1 expression in ovarian cancer (OvCa) patients remains unclear. The aim of the study was: 1) to evaluate the prevalence of HMGB1 and its effects on proliferation, apoptosis and migration in OvCa cells 2) to investigate the correlation between HMGB1 expression and prognosis in patients with OvCa.

Material and methods: tumor specimens were obtained from 64 patients with primary ovarian carcinoma. HMGB1 and RAGE receptor expression in tumors and in ovarian cancer cell lines (A2780, SKOV3) were detected by immunohistochemistry and flow cytometry. Cell growth, apoptosis and migration assay were measured following tumor cells exposure to RAGE receptor ligand - HMGB1 and LPS. To determine which signaling pathway are affected by HMGB1 protein expression was evaluated by Western Blot.

Results and conclusion: Ovarian cancer cells expressed HMGB1- recognizing receptor, TLR4 and RAGE. HMGB1 is overexpressed in tumor cells of ovarian cancer. HMGB1 and LPS binding to RAGE receptor enhanced proliferation and migration of cancer cells. HMGB1 overexpression was significantly associated with shorter overall survival (p< 0,001).

In conclusion, HMGB1 and RAGE were strongly expressed in ovarian carcinoma and HMGB1 and LPS administration promote ovarian cancer growth, support ovarian cancer progression and promote tumor escape.
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IS IT BENEFICIAL OF OVARIAN CANCER SCREENING BY TRANSVAGINAL ULTRASONOGRAPHY: FINDINGS OF 5-YEAR EXPERIENCE AT SINGLE INSTITUTION

M.-J. Kim, S. Kim, J.J. Kim
Obstetrics and Gynecology, Seoul National University Hospital Healthcare system Gangnam Center, Seoul, Republic of Korea

Objective: The aim of our study is to investigate the results of ovarian cancer screening by transvaginal ultrasonography in healthy women.

Methods: Between 2006 May and 2010 December, transvaginal ultrasonography (TVS) and CA125 were performed for the screening of ovarian cancer and tumor as a private or company-supported health-checkup. Initial screening and follow-up for suspicious ovarian tumors were retrospectively retrieved and analyzed.

Results: Of the 20,032 eligible subjects, 1,436 women (7.2%) had ovarian cysts or tumors on TVS. Overall 155 subjects (10.8%) had recommendation for operation, of which only 73 women had available data of histopathology and finally eleven primary ovarian cancers were confirmed including six of epithelial ovarian cancer (EOC), three of non-EOC, and two of low malignancy potential (LMP) of ovary. Of all screen-detected EOC, two thirds (4/6) were early stage diseases; three of stage I and one of stage IIIC diseases. However, huge myoma-suspicious mass unusual in postmenopausal women during screening was finally confirmed with stage IIIB EOC, poorly differentiated.

Conclusion: Ovarian cancer and tumor screening by TVS is helpful in detecting early stage of ovarian cancer and ovarian tumors, but the strategy should be further investigated with respect to follow-up interval and criteria for abnormal findings on TVS because unexpected or interval detection of ovarian cancer can be still presented as advanced stages.
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**EFFECT OF EXPERIMENTAL CONSOLIDATORY CHEMOTHERAPY ADMINISTRATION ON THE NUMBERS OF REGULATORY T CELLS IN PERIPHERAL BLOOD IN PATIENTS WITH OVARIAN CARCINOMA**

**T. Brtnicky**

*Dep. of Obstetrics and Gynecology, University Hospital Motol, Prague, Czech Republic*

**Objectives:** It was observed that patients with different types of oncological diseases have increased numbers of CD4+CD25+ regulatory T cells (Treg) in the peripheral blood. Treg participate in the control of anti-tumor immunity. Higher levels are an unfavourable factor. The purpose of experimental consolidatory therapy is to strongly decrease the numbers of circulating regulatory T cells and thus theoretically intensify natural anti-tumor immunity against persisting chemoresistant cells.

**Aims of study:**

To compare the effect of particular chemotherapeutics in metronomic doses on the number of Treg.

To confirm if the percentage of Treg correlates with the prognosis of patients with ovarian carcinoma.

**Methods:** We follow up 3 groups of patients. Group A: receive low dosis of cyclophosphamide. Group B: receive low dosis of etoposid. Group C: without consolidatory therapy.

Protocol of the study: 1. radical surgery, 2. 6 - 8 series of combined chemotherapy, 3. experimental consolidatory chemotherapy.

**Results:** 32 patients were included in the study, median follow up time is six months. 4 patients suffer from early relapse of the disease. We have found normal levels of Treg in patients with consolidatory chemotherapy in contrast to patients without consolidatory chemotherapy. Before 1 relapse of the disease significant elevation of Treg was found. There was no significant difference between relapse free survival curves in patients use cyclophosphamide and etoposide.

**Conclusions:** Monitoring the numbers of Treg is a hopeful prognostic marker of disease development and may provide insight to both effect of primary treatment and new experimental treatment procedures.
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J.X. Ang¹,², Y.N. Chia³

¹Department of Gynaecological Oncology, KK Women's and Children's Hospital, ²Yong Loo Lin School of Medicine, National University of Singapore, Singapore, Singapore

Introduction: Malignant Mixed Mesodermal Tumour (MMMT) is a rare ovarian cancer that is aggressive and has poor overall survival rate. Optimal combination chemotherapy of choice is controversial and current knowledge depends on small retrospective case series. We present our experience from KK Women's and Children's Hospital, Singapore (KKH).

Method: Between 1 Jan 2000 and 28 Feb 2011, a retrospective review of medical records of 19 patients diagnosed with MMMT of the ovary at KKH was conducted. Records of the patients were reviewed to determine demographics, pathology and clinical information regarding chemotherapeutic regimes, response, complications and survival.

Result: Age at diagnosis ranged from 36 to 82 years with a mean of 60.9 years. At presentation, there were 2 patients in stage I (10.5%), 6 in stage II (31.6%), 6 in stage III (31.6%), 3 in stage IV (15.8%) and 2 patients whose stage was unknown (10.5%). Overall median survival for the 19 patients was 6 months. For patients that received paclitaxel/carboplatin (PC) adjuvant chemotherapy post-optimal debulking surgery, their median survival was 12 months compared to 42.5 months for those who received cisplatin/ifosfamide (PI). The Kaplan-Meier plot comparing the two chemotherapeutic regimes show a statistically non-significant survival benefit for patients who received PI versus those who had received PC (p=0.070).

Discussion: Although survival from MMMT ovary is poor, our experience shows adjuvant
chemotherapy post-optimal debulking surgery improves survival duration. Aggressive surgery and combination chemotherapy of cisplatin/ifosfamide appears to be an effective treatment.
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[Kaplan-Meier plot comparing adjuvant PC vs PI]
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**CLINICAL SIGNIFICANCE OF PREOPERATIVE SERUM CA-125 LEVEL IN EPITHELIAL OVARIAN CANCER**

S.-H. Lee

*Obstetrics and Gynecology, Gachon University Gil Hospital, Incheon, Republic of Korea*

**Objective:** This study was performed to evaluate the clinical significance of preoperative CA-125 level in epithelial ovarian cancer.

**Methods:** 79 patients with epithelial ovarian cancer who were operated at Gachon University Gil hospital from January 2002 to December 2009 were included. Medical records including pathologic reports were reviewed retrospectively. Overall survival was analyzed by Kaplan-Meier method and log-rank test was used for curve comparison. Cox proportional hazards model was used for multivariate analysis.

**Results:** Mean age was 52.3 years old and mean BMI was 24.0. Histologically, malignant serous tumor was the most common histologic type (60.1%) and 46 patients had grade III tumor (58.2%). FIGO stage III was most common (58.2%) and 46 patients (58.2%) had residual disease less than 1 cm. In univariate analysis, age (p=0.01), stage (p=0.00), residual disease (p=0.01) and preoperative CA-125 level (p=0.03) were significant prognostic factors affecting survival. Patients less than 50 years old showed longer overall survival rate than patients over 50 years old. Stage I / II patients showed longer overall survival rate than stage III / IV patients. Patients with residual disease less than 1 cm showed longer overall survival rate than patients with residual disease over 1 cm. Patients with CA-125 level under 500 U/mL had significantly longer survival rate than patients with CA-125 level over 500 U/mL. However, multivariate analysis revealed none of these factors were significant independent prognostic factors.

**Conclusion:** To evaluate the clinical significance of preoperative CA-125 level in epithelial ovarian cancer, prospective study is needed.
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Conclusion: To evaluate the clinical significance of preoperative CA-125 level in epithelial ovarian cancer, prospective study is needed.
**Poster Presentation: Ovarian Cancer**

**ASSOCIATION BETWEEN THE METHYLATION STATUS OF DAPK1 AND P16 GENE IN EPITHELIAL OVARIAN CARCINOMA PATIENTS FROM NORTH INDIA**


*1 Biochemistry, Maulana Azad Medical College, 2 Obstetrics and Gynaecology, Maulana Azad Medical College and Associated Hospitals, New Delhi, India*

**Background:** Anomalous DNA methylation is the most common molecular detriment leading to the development of a tumour. The potential contribution of DNA methylation to oncogenesis is mediated by one or more of mechanisms that include DNA hypermethylation of tumour suppressor gene and chromosomal instability in cancers.

**Aim:** To investigate the promoter hypermethylation of DAPK1 and p16 gene during the progression of epithelial ovarian carcinoma.

**Methods:** A series of 50 ovarian carcinoma samples were evaluated. The promoter methylation status of p16 and DAPK1 was assessed by methylation-specific polymerase chain reaction. 50 ng of genomic DNA extracted from fresh peripheral blood was methylated in all CpG sites by DNA methylases and treated with the BisulFlash DNA Modification Kit. Converted DNA was amplified by using primers for promoters containing numerous CpG sites and then visualized on a 3.5% agarose gel under UV transillumination. The DAPK1 and p16 gene methylation status was correlated with age, menopause status, chemotherapy, stage and histopathology of the tumour.

**Results:** The frequencies of DAPK1 and p16 gene methylation in EOC patients was found to be 84% (p=0.0001) and 68% (p=0.0006) respectively. However no significant association was seen with age at diagnosis, menopause status, chemotherapy, stage and histopathology.

**Conclusions:** These results imply that promoter hypermethylation of DAPK1 and p16 may be employed as clinically useful biomarkers for prognosis and diagnosis of EOC noninvasively using genomic DNA. We suggest that aberrant promoter methylation of DAPK1/p16 may serve as a useful biomarker during the follow-up of EOC.
Poster Presentation: Ovarian Cancer

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M. Zuberi¹, A.R. Mir¹, I.A. Najar¹, J. Javid¹, P. Yadav¹, M. Masroor¹, S. Dhulariya¹, S. Ahmad¹, S. Shahnawaz¹, G. Gandhi², P.C. Ray¹, A. Saxena¹

¹Biochemistry, Maulana Azad Medical College, ²Obstetrics and Gynaecology, Maulana Azad Medical College and Associated Hospitals, New Delhi, India

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Poster Presentation: Ovarian Cancer
WHETHER PRIMARY SURGERY OR NEO-ADJUVANT CHEMOTHERAPY FOLLOWED BY SURGERY IS BENEFICIAL IN OVARIAN CANCER

K.J. Maula
Gynae Oncology, Comfort Hospital, Dhaka, Bangladesh

Objective: The aim of this study was to determine the better treatment result of ovarian cancer is primary surgery or by neo adjuvant chemotherapy followed by surgery.

Materials and methods: 51 women with 34 - 68 years of age with a diagnosis of advanced ovarian cancer were enrolled in a study in a private hospital of Dhaka city from July 2009 to September 2012. It was a cross sectional type of study. 26 women received chemotherapy followed by surgery. Rest of the women was treated surgically by Gynae oncologist followed by chemotherapy. The pathological verity was mainly epithelial and other mixed type.

Result: During interval surgery few case showed regression of tumor, metastasis in liver, multiple seedlings in pouch of Douglas, and over the peritoneum of uterus and bladder. Nodal inflation in aortocaval region and in the bifurcation of common iliac region, tumor mass was less regressed with development of nodular seedling in the para colic gutter, caecum and in omentum also, remnant of ovarian tissue only got histopathologically benign in one woman. Eight women presented as operable with regression of peritoneal fluid. Few showed wound dehiscence and burst abdomen.

Other group with primary surgery, complete surgery was possible in 16 cases. Rest of the cases showed adhesion with surrounded structure and metastasis in omentum. Sub optimal debulking of two cases, optical debulking with ureter and bladder injury (repaired).

Conclusion: Following above observation primary surgery is more beneficial due to disease free survival than the neoadjuvant chemotherapy followed by surgery.
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Conclusion: Following above observation primary surgery is more beneficial due to disease free survival than the neoadjuvant chemotherapy followed by surgery.
Poster Presentation: Ovarian Cancer
IDENTIFICATION OF ERα GENE POLYMORPHISM (T397C) IN PATIENTS WITH EPITHELIAL OVARIAN CARCINOMA AT DR. MOHAMMAD HOESIN GENERAL HOSPITAL PALEMBANG

A. Nurhasana
University of Sriwijaya, Palembang, Indonesia

Background: Ovarian carcinoma is the fifth leading cause of death in women. Approximately 90% of ovarian carcinomas originate from epithelial cells. The etiology of ovarian carcinoma is not fully known, but estrogen has been suspected as the contributing factor of ovarian carcinoma. Biological effects of estrogen are mediated by estrogen receptors; estrogen receptor alpha (ERα) and beta (ERβ). ERα gene polymorphisms induce proliferation and antiapoptosis of ovarian cells. The most observed SNP (single nucleotide polymorphisms) is in the intron I that can be recognized by PvuII enzyme.

Objective: To identify ERα gene polymorphism (T397C) in patients with epithelial ovarian carcinoma.

Methods: This is a descriptive study with cross sectional design on 30 patients with epithelial ovarian carcinoma at dr. Mohammad Hoesin General Hospital Palembang. Identification of ERα gene polymorphism was done by using PCR-RFLP (Polymerase Chain Reaction-Restriction Fragment Length Polymorphisms) technique with PvuII enzyme.

Results: The pp genotype was found in 10 patients (33.3%), Pp genotype was found in 15 patients (50%), and PP genotype was found in 5 patients (16.7%). 50% of ovarian carcinoma patients in this study are within the age range of 46-60 years, most have been married 73.3%, then 56.7% of patients have not yet gone through menopause, with no history of ovarian carcinoma as many as 83.3% and 46.7% of patients had a history of using hormonal contraception.

Conclusion: Most of patients with epithelial ovarian carcinoma at dr. Mohammad Hoesin General Hospital Palembang in this study had ERα gene polymorphism (T397C).
**Poster Presentation: Ovarian Cancer**

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Poster Presentation: Ovarian Cancer
IDENTIFICATION OF ESTROGEN RECEPTOR ALPHA (ERα) GENE POLYMORPHISM (T397C) IN PATIENTS WITH EPITHELIAL OVARIAN CARCINOMA

A. Nurhasana¹, R. Sanif¹, M.I. Saleh²
¹Obstetrics & Gynecology, ²Farmacology, Sriwijaya, Palembang, Indonesia

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Conclusion: Most of patients with epithelial ovarian carcinoma at dr. Mohammad Hoesin General Hospital Palembang in this study had estrogen receptor alpha (ERα) gene polymorphism (T397C).
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Conclusion: Most of patients with epithelial ovarian carcinoma at dr. Mohammad Hoesin General Hospital Palembang in this study had estrogen receptor alpha (ERα) gene polymorphism (T397C).
Poster Presentation: Surgical Techniques
RUPTURE OF GRAVID UTERUS FOLLOWING ROAD TRAFFIC ACCIDENT. LITERATURE REVIEW AND CASE REPORT
I.A. Yakasai¹, H.M. Abdullahi², M. Yusuf²

¹Bayero University Kano/Aminu Kano Teaching Hospital, Kano, Nigeria
²Obstetrics and Gynecology, Bayero University Kano/Aminu Kano Teaching Hospital, Kano, Nigeria

Background: Rupture of gravid uterus is a major obstetrics emergency that contributes significantly to high maternal and perinatal morbidity and mortality. Risk factors includes oxytocin use, uterine scar, obstructed labour, low socio economic status, high parity, lack of antenatal care and as a result of trauma following road traffic accident.

Aim: To present our experience in managing surgical cases and the challenges faced in developing nations.

Case report: Mrs HD was a 33 years old unbooked grandmultiparous woman referred from Jigawa state at gestational age of about 26 weeks with complaints of generalized abdominal pain distention, absent fetal movement and vaginal bleeding for 2 days following road traffic accident. A diagnosis of Posterior uterine rupture extending from the fundus measuring about 12cm in length, secondary to blunt abdominal trauma was made. She had exploratory laparotomy, total abdominal hysterectomy with conservation of the ovaries

Conclusion: Rupture of the gravid uterus remains one of the most disastrous complications of labour. It may complicate pregnancy, labour or delivery with feto maternal mortality and morbidity and also following road traffic accidents
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Poster Presentation: Surgical Techniques
ENDOMETRIAL CANCER RECURRENCE RATES IN ROBOTIC AND OPEN SURGERY IN SINGAPORE

Q.J. Ng¹, E.L. Yong², J.J.H. Low², Y.F. Fong², L. Shen¹, J.S.Y. Ng²

¹Yong Loo Lin School of Medicine, National University of Singapore, ²Department of Obstetrics and Gynaecology, National University Hospital, Singapore, Singapore

Objective: In 2008, robotic surgery was introduced in Singapore for gynaecological oncological operations. As data regarding recurrences in this group of patients matures, this study investigated the effect on recurrence and survival in endometrial cancer patients when the standard of care in a single institution shifts directly from open surgery to robotic surgery.

Methods: Prospectively collected data of 59 patients, who underwent robotics surgery for endometrial cancer from September 2008 to December 2011, was compared with a historic cohort of 151 patients, who underwent laparotomy between January 2003 and August 2008. The overall survival (OS) and disease-free survival (DFS) were analysed. Estimates of the one-year and two-year survival rates were calculated using the Kaplan Meier technique.

Results: Median follow-up time was 18.0 months for the robotics cohort and 62.1 months for the laparotomy cohort. There were 9 recurrent cases (15.3%) in the robotic cohort and 17 cases of recurrences (11.3%) in the laparotomy group. On multivariate analysis, there was no significant difference in recurrence rates between the robotic cohort and the laparotomy cohort (P = 0.151). OS and DFS were similar between the laparotomy and robotic surgery cohorts by the log-rank (P = 0.349; P = 0.400) and Cox regression model (P = 0.603; P = 0.132). The two-year OS rates were 88.3% and 96.4% in the laparotomy and robotics cohorts respectively.

Conclusion: When the standard of care for endometrial cancer shifts directly from open to robotic surgery, cancer treatment is not compromised and is associated with equivalent clinical outcomes.
Poster Presentation: Surgical Techniques
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Poster Presentation: Surgical Techniques

MOHS SURGERY FOR EXTRAMAMMARY PAGET’S DISEASE OF THE VULVA

H.C. van Doorn¹, E.R.M. de Haas², M.C. van Groningen³, A.J.M. Luijsterburg⁴

¹Department of Gynaecology and Gynaecologic Oncology, ²Department of Dermatology, ³Department of Pathology, ⁴Gynaecology and Gynaecological Oncology, Erasmus MC, Rotterdam, The Netherlands

Extramammary Paget's disease is a rare, slow-growing, usually noninvasive intraepithelial adenocarcinoma and can be present at the vulva. Recurrence rate after surgical excision is about 40%, since the lesions are more extended than visible. When the lesions are close to vital organs large and sufficient margins can only be obtained at the cost of loss of function.

We performed Mohs surgery on a 66 year old female to obtain adequate margins of a 7 cm large lesion close to the clitoris and spared function without compromising margins. A total of 3 sessions were necessary and it resulted in a defect of 6 X 12 cm which was closed by a skin transposition.

Mohs surgery is performed in four steps:

- Surgical removal of tissue: The procedure is preferably performed in a day care setting under local anesthetic. The angle between the scalpel and the tissue should be 45 degrees.

- Flattening the piece of tissue out on a cold glass slide, freezing and cutting the tissue between 5 and 10 micrometers, and staining with hematoxylin and eosin

- Interpretation of microscope slides note: the entire surgical margin is examined

- Closure or reconstruction of the surgical defect

Compared to other surgical modalities, Mohs surgery is time consuming and expensive. However, in anatomically crucial areas, tissue sparing and low recurrence rate makes it a procedure of choice. In addition to close collaboration of gynecologists, dermatologists, pathologists and plastic reconstructive surgeons, good facilities are mandatory.
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Poster Presentation: Surgical Techniques

DETERMINATION OF SENTINEL LYMPH NODES IN THE SURGICAL TREATMENT OF CERVICAL CANCER

Y.M. Bylina, A.L. Chernysheva, L.A. Kolomiets

Cancer Research Institute of Siberian Branch of the Russian Academy of Medical Sciences, Tomsk, Russia

Objectives of the study. The main objective is the possibilities evaluation of radionuclide methods assessment of the regional lymph apparatus in malignant tumors of the cervix in order to assess the clinical status of regional lymph nodes, specify the stage of disease, differentiation of surgical intervention.

Materials and methods. 11 patients with cervical cancer who were treated at the Institute of Oncology in 2009-2012 were administered radioactive lymphotropic nanocolloids labeled with 99mTc, the day before surgery at a dose of 80 MBq. After performing pelvic iliac lymphadenectomy, remote makropreparat re looking around the gamma probe and compared the data with the intraoperative study. The lymph node was seen as a watchdog if its activity at least three times higher than the radioactivity of nodes in the same group.

Results. Single photon emission computed tomography (SPECT) of the abdomen revealed a sentinel lymph nodes in 8 patients, at the same time, intraoperative (radiometrically) SLN were detected in 10. The maximum number of SLE have been identified in the external iliac artery - 50.4%, in the obturator fossa - 30.3%, and the internal iliac artery - 12.3%, 6% - in the common iliac artery, in one case in the cardinal ligament. Unilateral SLN identified in 41.9%.

Conclusions. Intraoperative radiometric indication allows the sensitivity of 90.9% and a specificity of 100% to determine the "watchdog" lymph node after injection of radioactive nanocolloids.
**Poster Presentation: Surgical Techniques**

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Poster Presentation: Surgical Techniques
THE USE OF NICKEL TITANIUM IMPLANTS TO STRENGTHEN AREA OF UTERO-VAGINAL ANASTOMOSIS IN THE TREATMENT OF ORGAN-INVASIVE CERVICAL CANCER

Y.M. Bylina, A.L. Chernysheva, L.A. Kolomiets

Cancer Research Institute of Siberian Branch of the Russian Academy of Medical Sciences, Tomsk, Russia

Objectives of the study: The main objective of strengthening the area of utero-vaginal anastomosis is the formation of "obturator" apparatus in the absence of the cervix during the transabdominal radical transabdominal trahelektomii in patients with invasive cervical cancer.

Materials and methods: In the gynecology department of FSCE "Cancer Research Institute of RAMS (Russian Academy of Medical Sciences)" was developed and tested method of strengthening areas of utero-vaginal anastomosis using the grid of superelastic nickel-titanium filaments in patients with cervical cancer during the operation of the radical transabdominal trahelektomii.

The feasibility of using a grid of superelastic nickel-titanium due to its biomechanical properties: it doesn’t resolve, fuses with the surrounding tissue and stabilizes tissues to excessive strain. It takes the basic function "obturator" apparatus of the uterus and provides functional support and resistance utero-vaginal anastomosis to the effects of intrauterine and intraperitoneal pressure.

Conclusions: Thus, in terms of execution of organ preservation treatment of invasive cervical cancer using superelastic nickel-titanium for strength and fixation anastomosis zone can improve the functional quality of the operation by reducing the risk of insolvency of utero-vaginal anastomosis after radical transabdominal trahelektomii, it does not have an adverse effect on the course early and late postoperative period.
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Poster Presentation: Symptom Management / Palliation
BEGINNING EDUCATION ON SYMPTOM MANAGEMENT AT THE ONSET OF TREATMENT IS CRITICAL

S. Singh-Carlson

Nursing, California State University Long Beach, Long Beach, CA, USA

This study explored experiences and concerns of breast cancer survivors post treatment, especially in light of their treatments side effects. Studies show that breast cancer survivors (BCS) may feel isolated and uninformed after completion of active treatment, when they have less interaction with health professionals. The range of survivorship issues that patients can encounter is broad and can include physical, psychological, social and spiritual aspects. Although, Institute of Medicine’s report on cancer survivorship recommends that cancer patients completing treatment should be provided with a comprehensive care summary and follow up plan that is clearly and effectively explained, it is not always practiced in oncology care.

A qualitative approach was used to explore impacts of breast cancer on survivors at different life stages and to determine preferred content and format of survivorship care plan. The impacts of breast cancer were broad and varied by age group for the 16 women in the study. Physical, emotional and social effects were more intense in younger patients with women in the middle age group experiencing more concerns centered on financial and social support issues. Fatigue and fear of recurrence were the most universal effects. Important elements include: treatment summary, information on nutrition/exercise, expected side effects, signs/symptoms of recurrence, follow-up schedule, and updates on changes to recommended care.

Breast cancer survivors are diversely impacted by the breast cancer experience. Effects vary by life stage, which is important when providing care to populations who are in need of early intervention for symptom management/palliation as disease progresses.
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SYMPTOMS MANAGEMENT AND FEMALE SEXUAL DYSFUNCTION AFTER GYNECOLOGICAL CANCER SURGERY

G.B. Chakalova

Gynecological Oncology, National Cancer Center, Sofia, Bulgaria

Female sexual dysfunction is a common complication after most pelvic surgeries. Sexual dysfunction is a major quality-of-life issue in these young women and a common problem among postmenopausal women. Hysterectomy (simple or radical) is the most common type of pelvic surgery in women and is one of the most important causes of female sexual dysfunction. From 2007 till 2011, a study of sexual dysfunction of 189 female cancer patients was performed. Primary tumor was in 151 cases, primary multiple malignant tumors in 28 cases and familial cancer in 10 cases. Patient self-report of the severity of sexual symptomology at follow-up visit was used. Patients received symptomatic treatment recommendations including hormone therapy alternatives, psychosexual counseling, minimally absorbed vaginal estrogen suppositories, and vaginal dilators. Median age at initial visit was 52 years and 111 patients (58%) were postmenopausal. Symptoms management was carried out. The most frequent presenting complaint encountered was dyspareunia (69%), atrophic vaginitis (66%), hypoactive desire (44%), and orgasmic dysfunction (21%). Female sexual dysfunction is an important issue after breast cancer (radical mastectomy) and colorectal cancer (simple and radical proctocolectomy) in combination with the PMMT gynecological cancer. At a median of 6 months 92 patients (49%) self-reported improvement in their symptoms. The establishment of a well-structured sexual health program in a cancer setting can result in a 49% subjective improvement in sexual health complaints. Modifications in the surgical technique (nerve sparing) are recommended in the field of gynecologic surgery. It is reasonable to prescribe hormonal replacement therapy to symptomatic, well informed patients.
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Poster Presentation: Symptom Management / Palliation

PERCEPTION OF ATTENDEES OF OUTPATIENTS CLINIC FOR CANCER AT KING ABDULAZIZ UNIVERSITY HOSPITAL TOWARD SUPPORT SERVICES AND TREATMENT OF CANCER

K. Sait1,2, N. Anfinan2,3

1Obstetric and Gynecology, 2Scientific Chair of Professor Abdullah Hussain Basalamah for Gynecological Cancer, 3Obstetrics and Gynecology, King Abdulaziz University Hospital, Jeddah, Saudi Arabia

Cancer has become a major public health issue. In this study we aimed to assess the perception and attitude of the general population toward cancer treatment and to evaluate other factors regarding cancer. Study was conducted among healthy subjects attending clinic for cancer with their relative relatives at king abdulaziz university hospital (KAUH). Required information was obtained through questionnaires. There were 846 participants. Results showed that (26.9%) of participants had poor knowledge about the causes of cancer. Regarding telling the patients about their disease, only two thirds (71.9%) of healthy participants believed that cancer patients should know about their diseases, (16.2%) of them think that cancer patients can take alternative medicine alone. However, only (43.2%) of the healthy participants believed that cancer could be treated.

In comparison between male and female perception, male had significant false knowledge regarding causes of cancer. On the other hand, about (58.7%) of female had a belief that cancer patients should receive traditional treatment. In addition, about (30.6%) of them believe that the patient should receive it alone. (p = .032), (P = .006) respectively. In conclusion, this study showed that participants had a deficient perception and poor attitude about important issues concerning cancer. Prevention education strategies should consider targeted approaches that aim to reduce disparities in cancer perception among the general population by increasing the awareness about cancer which will lead to early diagnosis of the disease and better outcomes.
Poster Presentation: Symptom Management / Palliation
PERCEPTION OF ATTENDEES OF OUTPATIENTS CLINIC FOR CANCER AT KING ABDULAZIZ UNIVERSITY HOSPITAL TOWARD SUPPORT SERVICES AND TREATMENT OF CANCER

K. Sait1,2, N. Anfinan2,3

1Obstetrics and Gynecology, 2Scientific Chair of Professor Abdullah Hussain Basalamah for Gynecological Cancer, 3Obstetrics and Gynecology, King Abdulaziz University Hospital, Jeddah, Saudi Arabia

Cancer has become a major public health issue. In this study we aimed to assess the perception and attitude of the general population toward cancer treatment and to evaluate other factors regarding cancer. Study was conducted among healthy subjects attending clinic for cancer with their relative relatives at king abdulaziz university hospital (KAUH). Required information was obtained through questionnaires. There were 846 participants. Results showed that (26.9%) of participants had poor knowledge about the causes of cancer. Regarding telling the patients about their disease, Only two third (71.9%) of healthy participants believed that cancer patients should know about their diseases, (16.2%) of them think that cancer patients can take alternative medicine alone. However, Only (43.2%) of the healthy participants believed that cancer could be treated.

In comparison between male and female perception, Male had significant false knowledge regarding causes of cancer. On the other hand, About (58.7%) of female had a belief that cancer patient should receive traditional treatment. In addition about (30.6%) of them believe that the patient should receive it alone. (P= .032), (P= .006) respectively. In conclusion, this study showed that participants had a deficient perception and poor attitude about important issues concerning cancer. Prevention education strategies should consider targeted approaches that aim to reduce disparities in cancer perception among the general population by increasing the awareness about cancer which will lead to early diagnosis of the disease and better outcomes.
Poster Presentation: Symptom Management / Palliation
PERCEPTION OF PATIENTS WITH CANCER ATTENDING KING ABDULAZIZ UNIVERSITY HOSPITAL TOWARDS SUPPORT SERVICES AND TREATMENT

N. Anfinan$^{1,2}$, K. Sait$^{1,2}$

$^1$Obstetric and Gynecology, $^2$Scientific Chair of Professor Abdullah Hussain Basalamah for Gynecological Cancer, King Abdulaziz University Hospital, Jeddah, Saudi Arabia

Objective: The aim is to evaluate the perception / attitude of patients with cancer toward their treatment services and the factors affecting them and to inquire the use of CAM.

Method: This study was conducted among patients attending king abdulaziz university hospital day care for follow up, required information was obtained through questionnaires there were 137 respondents (64.6%).

Results showed: The univariate analysis showed that 61 (61%) Saudi patients were satisfied with service provided to them, 25 (25%) were not satisfied about the explanation of the cancer. 28 (20%) of patients received alternative therapy, mostly herbal 15 (53%), both those who used or didn’t use these treatments believed that it can be taken alone 7 (5.1%) or with treatment 34 (24.8%). in regard of the support 53 (53%) satisfied patients were receiving enough support, 31 (58.4%) of the support was provided by relative, friends and family while 22 (41.6%) from the health team.

Conclusion: We stress on enhancing the services provided to patients with cancer including educational and supportive aspects in order to improve their satisfaction about the treatment, we also emphasise on the need of increasing the educational and awareness programmes that are given to these patients.
Perception of Patients with Cancer Attending King Abdulaziz University Hospital Towards Support Services and Treatment

N. Anfinan\textsuperscript{1,2}, K. Sait\textsuperscript{1,2}

\textsuperscript{1}Obstetric and Gynecology, \textsuperscript{2}Scientific Chair of Professor Abdullah Hussain Basalamah for Gynecological Cancer, King Abdulaziz University Hospital, Jeddah, Saudi Arabia

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**Poster Presentation: Translational Science**

**MONOCLONAL ANTIBODY (C595) COMBINED WITH DOCETAXEL IN THE TREATMENT OF ADVANCED EPITHELIAL OVARIAN CANCER IN VITRO AND IN VIVO**

**L. Wang**$^{1,2}$, **H. Chen**$^{1,2}$, **J. Deng**$^{1,2}$, **L. Li**$^{1,2}$, **Y. Ma**$^{1,2}$, **Y. Li**$^{1,3}$

$^1$Gynecologic Oncology, The Affiliated Cancer Hospital of Zhengzhou University, $^2$Gynecologic Oncology, The Henan Cancer Hospital, Zhengzhou, China, $^3$Cancer Care Centre, St George Hospital, University of New South Wales, Kogarah, NSW, Australia

**Aim:** To investigate the effectiveness of combination treatment with anti-MUC1 monoclonal antibody C595 (MAb C595) plus docetaxel (DTX) in epithelial ovarian cancer (EOC) cell lines in vitro and in an intraperitoneal (i.p) EOC mouse model in vivo.

**Methods:** The effect of MAb C595 alone or in combination with DTX on EOC cell lines was studied by proliferation, colony, TUNEL and ELISA assays. OVCAR-3 cells were implanted intraperitoneally in female athymic nude mice and allowed to grow tumor and ascites. Mice were then treated with single or combination therapies. Ascites volume, tumor weight, CA125 levels from ascites and survival of animals were assessed. The expression of MUC1, CD31, Ki-67, TUNEL and apoptotic proteins in tumor xenografts was evaluated by immunohistochemistry.

**Results:** Low-dose MAb C595 (1/2 of IC$_{50}$) combined with DTX greatly improved efficiency of cell killing in EOC cells and induced apoptosis; the additive effect of MAb C595 was further confirmed in colony forming assays; and cell death following single or combined treatments was associated with the release of cytochrome c and increased caspase-3 activity. MAb C595 alone inhibited i.p tumor growth and ascites production in a dose-dependent manner but did not obviously prevent tumor development. However, combination test significantly reduced ascites volume, tumor growth and metastases.

**Conclusions:** This combination approach can effectively kill EOC cells in vitro, reduce tumor burden and ascites, prolong survival of animals through induction of tumor apoptosis and necrosis, and may provide a potential therapy for advanced metastatic EOC.
Poster Presentation: Translational Science

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Poster Presentation: Translational Science
OVER-EXPRESSION OF MIR-182 IN BREAST CANCER INCREASES TUMORIGENICITY AND INVASIVENESS
C.-H. Chiang\textsuperscript{1}, W.-C. Hung\textsuperscript{2}
\textsuperscript{1}Institute of Biomedical Sciences, National Sun Yat-Sen University, Kaohsiung, \textsuperscript{2}National Institute of Cancer Research, National Health Research Institutes, Tainan, Taiwan R.O.C.

Background: MiR-182 is a member of the miR-183 cluster located at human chromosome 7q32 region. We study its oncogenic role in breast cancer.

Methods: MiR-182 level was investigated by real-time reverse transcription-PCR. Chromatin immunoprecipitation assay was used to confirm promoter binding of transcription factors. The correlation between miR-182 and RECK were analyzed by Western blotting, real-time RT-PCR, RT-PCR and 3'-untranslated region reporter assay. Zymography, matrix metalloproteinase (MMP) activity, invasion and colony formation assays were used to study the tumorigenic activity of miR-182.

Results: MiR-182 is over-expressed in human breast tumor tissues and cell lines. Inhibition or knockdown of β-catenin significantly reduced miR-182 level. Chromatin immunoprecipitation assay confirmed the constitutive binding of β-catenin on miR-182 promoter. Anti-miR-182 increased the endogenous MMP inhibitor RECK protein MDA-MB-231 cells while pre-miR-182 reduced RECK protein but not mRNA in normal mammary epithelial H184B5F5/M10 cells. Restoration of RECK protein by anti-miR-182 attenuated MMP-9 activity, cell invasion and colony formation.

Conclusions: We provide evidence that miR-182 is up-regulated by β-catenin signaling pathway in breast cancer and its up-regulation increases tumorigenicity and invasiveness by repressing RECK. These results suggest that miR-182 is a potential therapeutic target of breast cancer.
**Poster Presentation: Translational Science**

**OVER-EXPRESSION OF MIR-182 IN BREAST CANCER INCREASES TUMORIGINICITY AND INVASIVENESS**

C.-H. Chiang\(^1\), W.-C. Hung\(^2\)

\(^1\)Institute of Biomedical Sciences, National Sun Yat-Sen University, Kaohsiung, \(^2\)National Institute of Cancer Research, National Health Research Institutes, Tainan, Taiwan R.O.C.

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CHARACTERIZATION OF CD45-/CD31+/CD105+ CIRCULATING CELLS IN THE PERIPHERAL BLOOD OF PATIENTS WITH GYNECOLOGICAL MALIGNANCIES


Cheil General Hospital and Women's Healthcare Center, Kwandong University, College of Medicine, Seoul, Republic of Korea

Purpose: Circulating endothelial cells (CECs) have been widely used as diagnostic biomarkers and predictors of response to treatment in several cancers. However, the presence and biological roles of CECs have remained controversial for decades because technical standards for the identification and quantification of CECs have not been established. Here, we hypothesized that CECs detected by flow cytometry might be monocytes rather than endothelial cells.

Design: The frequency of representative CEC subsets (i.e., CD45-/CD31+, CD45-/CD31+/CD146+, CD45-/CD31+/CD105+) was analyzed in the peripheral blood of gynecological cancer patients (n=56) and healthy volunteers (n=44). CD45-/CD31+ cells, which are components of CECs, were isolated and the expression of various markers (CD146, CD105, vWF, and CD144 for endothelial cells; CD68 and CD14 for monocytes) was examined by immunocytochemistry.

Results: CD45-/CD31+/CD105+ cells were significantly increased in the peripheral blood of cancer patients whereas CD45-/CD31+/CD146+ cells did not differ between patients and controls. Immunocytochemistry analyses showed that these CD45-/CD31+/CD105+ cells did not express vWF but rather CD144. Furthermore, CD45-/CD31+/CD105+ cells uniformly expressed the monocyte-specific markers CD14 and CD68. These results suggest that CD45-/CD31+/CD105+ cells may carry the characteristics of monocytes rather than endothelial cells.

Conclusion: Our data indicate that CD45-/CD31+/CD105+ circulating cells, which are significantly increased in the peripheral blood of gynecological cancer patients, are monocytes rather than endothelial cells. Further investigation is required to determine the biological significance of their presence and function in relation with angiogenesis.
CHARACTERIZATION OF CD45⁻/CD31⁺/CD105⁺ CIRCULATING CELLS IN THE PERIPHERAL BLOOD OF PATIENTS WITH GYNECOLOGICAL MALIGNANCIES

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**Poster Presentation: Translational Science**

**POLYCOMB GROUP RING FINGER PROTEIN PLAYS A ROLE IN GAMMA IONIZING RADIATION-INDUCED DNA DAMAGE RESPONSE**

Cheil General Hospital and Women's Healthcare Center, Kwandong University, College of Medicine, Seoul, Republic of Korea

**Introduction:** Polycomb group (PcG) gene product is a family of proteins that were accumulated with complexes in nuclear and plays an important role in development and maintaining stem cell population of hematopoietic and neuronal cell lineages. PcG complexes can regulate the transcriptional activity of many genes by epigenetic silencing involved in embryogenesis. Recent reports showed the overexpressions of PcG proteins were correlated with the severity of many cancers.

**Method:** To investigate the underlying possibility of PcG ubiquitin ligases (PCGF1-6, RNF1, and RNF2) with PcG complex on DNA damage response after exposure to gamma ionizing radiation, we generated the stable knockdown MCF7 cell lines capable of silencing each of PcG ubiquitin ligase.

**Results:** DNA nonhomologous end joining (NHEJ) activity was suppressed in PcG ubiquitin (PCGF1-5) stable knockdown MCF7 cells. However, clonogenic assay showed that ionizing gamma radiation-induced cell growth inhibition was most effective in stable PCGF5 PcG ubiquitin ligase-knockdown MCF7 cell line. Furthermore, cellular H2A ubiquitination level was not elevated in PCGF5 knockdown MCF7 cell line after treatment of gamma ionizing radiation.

**Conclusions:** We demonstrated that the PcG ubiquitin ligases are not colocalized at γ-H2AX foci. These results demonstrate that Each of PcG ubiquitin ligases can coordinately regulate the cell resistance mechanism in DNA damage response.
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**Poster Presentation: Translational Science**

**THE STUDY ON DETECTION AND GENOTYPING OF CERVICAL HPV (HUMAN PAPILLOMA VIRUS) WITH SIMULTANEOUS CERVICAL CYTOLOGY IN KOREAN WOMEN**

H.-B. Kim, S.-H. Park  
*Obstetrics and Gynecology, Hallym University, Seoul, Republic of Korea*

**Objectives:** To investigate the prevalence of cervical human papilloma virus (HPV) with genotyping and simultaneous cervical cytology among Korean women in a Hallym university hospital.

**Material and methods:** Cervical HPV-DNA testing with simultaneous cervical Pap test was performed in women who visited our hospital between Jun. 2010 and Dec. 2011 for this study. Seeplex HPV 18-plex test was used for HPV detection and genotyping. Liquid-based cytology was used for Pap test and Bethesda system was used for the results.

**Result:** A total of 470 patients were enrolled in this study and mean age of the patients was 41.3 years old. The prevalence of any HPV was 29.4% while high-risk HPV was positive in 26.3%. Among HPV-positive women, 71.3% had at least one type of high-risk HPV. Most common HPV was type 16 followed by type 18 and 31. Abnormal cervical cytology rate was 14.3%. Rate of HPV positivity was significantly higher in women with abnormal cervical cytology compared to women with normal cytology (48.2 vs. 19.3%).

**Conclusion:** Cervical HPV infection is a serious and gradually increasing problem for Korean women according to Hallym university hospital data. This may be associated with low age at the sexual debut and more sensitive HPV detection methods.
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Poster Presentation: Translational Science
AN ISOFORM OF BARD1 AFFECTS TELOMERE INTEGRITY AND CREATES GENETIC INSTABILITY IN CERVICAL CANCER

M. Pilyugin¹, P.-A. André¹, M. Chibi¹, N. Concin², I. Irminger-Finger¹

¹University Hospitals Geneva, Geneva, Switzerland, ²University Hospital Innsbruck, Innsbruck, Austria

BARD1 has tumor suppressor functions by binding to BRCA1 and p53 via RING finger and ankyrin repeats, respectively. The BARD1-BRCA1 dimer has E3 ligase activity, and BARD1-p53 interaction is required for apoptosis. RING-less BARD1 isoforms were identified in various cancers, their expression correlated with poor prognosis, consistent with their proproliferative, oncogenic functions.

One isoform is abundantly expressed in cervical cancer, BARD1δ, which lacks RING and ankyrin motifs. Overexpression of BARD1δ in vitro blocks cells at G2/M. Arrested cells showed high levels of chromosomal aberrations, associated with loss and translocation of telomere sequences, suggesting that BARD1δ affected telomere integrity.

Immune fluorescence microscopy showed co-localization of BARD1 with telomere binding proteins, specifically TRF2. BARD1δ, however, was diffusely located in the nucleus and cytoplasm, as was TRF2 in BARD1δ expressing cells. BARD1 and BARD1δ co-precipitated with TRF2, but BARD1 overexpression reduced TRF2 levels, while BARD1δ overexpression increased and tethers TRF2 away from telomeres.

To understand the role of BARD1δ in cervical carcinogenesis we investigated its expression in normal epithelium and in progressive stages of cervical intraepithelial neoplasia (CIN I to III). In normal epithelium BARD1δ expression was restricted to differentiated arrested cells and completely absent from proliferating cells, but in CIN stages, BARD1δ expression was increasingly observed in proliferating cells correlated with disease progression.

We hypothesize that BARD1δ acts in a novel pathway signaling cell cycle arrest in differentiated cells. However, escape from proliferation arrest generates cells with chromosomal instability and promotes carcinogenesis.
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Poster Presentation: Uterine Cancer, including Sarcoma
ATTITUDES AND PRACTICES OF KOREAN GYNECOLOGISTS TOWARDS HORMONE REPLACEMENT THERAPY IN ENDOMETRIAL CANCER SURVIVORS

D.C. Park¹, S.J. Lee¹, J.H. Lee¹, S.G. Yeo²
¹St. Vincent's Hospital, The Catholic University, Suwon, ²Medical Research, East-West Medical Research Institute, Kyung Hee University, Seoul, Republic of Korea

Objectives: To investigate the attitudes of Korean gynecologists towards prescribing hormone replacement therapy (HRT) after treatment for endometrial cancer.

Material and methods: A questionnaire, addressing attitudes towards HRT and treatment strategies for patients previously treated for endometrial cancer, was distributed to 163 Korean gynecologists.

Results: Of the 163 gynecologists sent this questionnaire, 98 (60.1%) responded. Among the respondents, 81 (82.7%) had previously prescribed HRT to patients with endometrial cancer. Of the latter, 75 (92.6%) had prescribed HRT to patients with stage I, and more than half to patients with stage II, endometrial cancer. Of the respondents who had prescribed HRT, 33 (40.7%) did so without regard for cancer-cell type and 33 (40.7%) started patients on HRT more than 2 years after endometrial cancer treatment. Tibolone was the most commonly prescribed drug (61.9%). The most common reason not to prescribe HRT was fear of cancer recurrence (38.1%).

Conclusion: Most of the Korean gynecologists surveyed had experience prescribing HRT to endometrial cancer patients. Although HRT is not actively recommended, HRT given post-therapy to endometrial cancer patients is considered acceptable.
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Poster Presentation: Uterine Cancer, including Sarcoma
ENDOMETRIAL INSTILLATION OF VITAL DYE AS A SLN MAPPING TECHNIQUE

A. Hassan Hamed\textsuperscript{1,2}, E.D. Elsnosy\textsuperscript{2}, M.A. Abdel-Aleem\textsuperscript{2}, M. Khafagy\textsuperscript{3}, G. Del Priore\textsuperscript{1}

\textsuperscript{1}Obstetrics and Gynecology, Gynecologic Oncology Division, Indiana University School of Medicine, Indianapolis, IN, USA, \textsuperscript{2}Obstetrics and Gynecology, Assiut University, Assiut, \textsuperscript{3}Surgical Oncology, National Cancer Institute, Cairo University, Cairo, Egypt

Objective: A feasibility study of a new sentinel node mapping procedure.

Method: Case series of endometrial cancer patients scheduled for surgery and consenting to an IRB approved use of a new vital dye delivery device. 1cc isosulfane blue injections of the cervix at 3 and 9 o’clock was followed by insertion of the dye delivery device into the uterine cavity. This was followed by the planned surgery. Once the pelvis was under visualization, the Fallopian tubes were occluded; the new delivery device was then used to instill 5cc of different SLN dyes directly into the endometrial cavity and tumor surface.

Results: Ten patients consented. Instillation using the new procedure delivered dye was successful in 7/10 cases. In all instillation cases, the entire fundus became blue through to the serosa. Cervical injection never resulted in the fundus becoming blue. Two cases clearly demonstrated a different lymphatic channel pattern between the endometrial cavity instillation compared to the cervical injection. This was evident by differences in the colors of the dyes used. Cervical injections demonstrated blue sentinel nodes in 7 cases that were histopathology confirmed with none positive for cancer. Complete lymph node dissection followed sentinel nodes biopsy in all ten cases. No nodes were positive using any technique. There were no complications.

Conclusions: Delivery of an alternate SLN dye to the tumor surface is possible. The new procedure results in a different staining pattern identifying alternative lymphatic drainage. Additional data is needed to validate the test characteristics including positive and negative predictive values.
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ENDOMETRIAL INSTILLATION OF VITAL DYE AS A SLN MAPPING TECHNIQUE

A. Hassan Hamed\textsuperscript{1,2}, E.D. Elsnosy\textsuperscript{2}, M.A. Abdel-Aleem\textsuperscript{2}, M. Khafagy\textsuperscript{3}, G. Del Priore\textsuperscript{1}

\textsuperscript{1}Obstetrics and Gynecology, Gynecologic Oncology Division, Indiana University School of Medicine, Indianapolis, IN, USA, \textsuperscript{2}Obstetrics and Gynecology, Assiut University, Assiut, \textsuperscript{3}Surgical Oncology, National Cancer Institute, Cairo University, Cairo, Egypt

**Objective:** A feasibility study of a new sentinel node mapping procedure.

**Method:** Case series of endometrial cancer patients scheduled for surgery and consenting to an IRB approved use of a new vital dye delivery device. 1cc isosulfane blue injections of the cervix at 3 and 9 o'clock was followed by insertion of the dye delivery device into the uterine cavity. This was followed by the planned surgery. Once the pelvis was under visualization, the Fallopian tubes were occluded; the new delivery device was then used to instill 5cc of different SLN dyes directly into the endometrial cavity and tumor surface.

**Results:** Ten patients consented. Instillation using the new procedure delivered dye was successful in 7/10 cases. In all instillation cases, the entire fundus became blue through to the serosa. Cervical injection never resulted in the fundus becoming blue. Two cases clearly demonstrated a different lymphatic channel pattern between the endometrial cavity instillation compared to the cervical injection. This was evident by differences in the colors of the dyes used. Cervical injections demonstrated blue sentinel nodes in 7 cases that were histopathology confirmed with none positive for cancer. Complete lymph node dissection followed sentinel nodes biopsy in all ten cases. No nodes were positive using any technique. There were no complications.

**Conclusions:** Delivery of an alternate SLN dye to the tumor surface is possible. The new procedure results in a different staining pattern identifying alternative lymphatic drainage. Additional data is needed to validate the test characteristics including positive and negative predictive values.
Poster Presentation: Uterine Cancer, including Sarcoma

ENDOMETRIAL CANCER IN CASES OF PRIMARY MULTIPLE MALIGNANT TUMORS-
ALGORITHMS FOR EARLY DETECTION AND FOLLOW-UP

G.B. Chakalova

Gynecological Oncology, National Cancer Center, Sofia, Bulgaria

From 1987 till 2011, 1814 patients with endometrial cancer were treated at our Department, in 115 cases (6.3%) endometrial cancer was a part of combination of primary multiple malignant tumors. The most frequent combination was with breast cancer- 58 cases (50%), ovary- 25 cases (22%) and colon-rectum - 14 cases (12%). Endometrial cancer as a first tumor was Stage I-75%, Stage II-13%, Stage III-11% and Stage IV-1%. Our results show that endometrial cancer is late diagnosed in cases with PMMT, and only 28 % were in stage I. Stage II- 33%, Stage III- 35% and Stage IV- 4% were detected. In cases of primary breast and colon-rectum cancers an algorithms for early detection of the endometrial cancer is recommended. In cases of abnormal genital bleeding or Pap smear are necessary investigation: vaginal and rectal examination, endocervical and endometrial curettage, histological findings with all standart tumor parameters, laboratory analyses: WBC, biochemical analyses including check for renal function, Hb, imaging: chest X-ray, abdominal and pelvic ultrasound (size and position of the tumor and tumor volume). Optional investigation are: pelvic NMR, CT of the abdomen (PET/CT if possible), cystoscopy, rectoscopy, IVU or sonographic renal examination. Involvemnt of the bladder or rectum should be confirmed histological. Recommended follow-up: every 3 months after completed therapy during the first year, every 6 months up to 5 years. Annually afterwards. Investigations in addition to gynecological examination should be performed depending on symptoms, local findings and general condition of the patient, and follow-up of the primary tumor as well.
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GENETIC POLYMORPHISM OF PRKCDBP IS ASSOCIATED WITH AN INCREASED RISK OF ENDOMETRIAL CANCER

S.-K. Lee, K.-D. Ki, J.-M. Lee, S.-Y. Tong

Department of Obstetrics and Gynecology, Kyung Hee University Hospital at Gangdong, Seoul, Republic of Korea

Background: Protein kinase C, delta binding protein (PRKCDBP), also known as human SRBC gene [serum deprivation response factor-related gene product that binds to the c-kinase], is a putative tumor suppressor located at 11p15.4, where frequent genomic loss has been observed in several human cancers such as those of the breast, lung, cervix, stomach and endometrium.

Objectives: We conducted a case-control study to explore the possible association between an intragenously single-nucleotide polymorphism (SNP) of PRKCDBP (rs1051992), which results in a Leu to Pro substitution, and the risk of developing endometrial cancer in Korean women.

Methods: Endometrial tissues from 147 cancer patients and 191 healthy individuals were included for the test for rs1051992 genotypes by restriction endonuclease PvuII-based genotyping. Allele frequencies in cancer specimens were compared with those in healthy controls. We also evaluated the association between polymorphism and histopathological features.

Results: Individuals with the variant homozygous CC genotype had an increased risk of endometrial cancer compared to those carrying the T genotype (OR=1.62, 95% CI 1.051-2.501, p=0.019). And the CC genotype was significantly associated with early stage (stage IA) (OR=1.811, 95% CI 1.041-3.150, p=0.034) and grade 1 (OR=1.852, 95% CI 1.087-3.3156, p=0.023) tumors, compared to patients carrying the T allele.

Conclusion: These findings raise the possibility that individuals with the variant homozygous CC genotype of PRKCDBP rs1051992 exhibited higher risk for developing endometrial cancer, but this genotype was a favorable prognostic factor once cancer was present.
Poster Presentation: Uterine Cancer, including Sarcoma

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Conclusion: These findings raise the possibility that individuals with the variant homozygous CC genotype of PRKCDBP rs1051992 exhibited higher risk for developing endometrial cancer, but this genotype was a favorable prognostic factor once cancer was present.
RELATIONSHIP BETWEEN METABOLIC ABNORMALITIES AND ENDOMETRIAL HYPERPLASIA: A RETROSPECTIVE COHORT STUDY

S. Weiwei1,2, L. Xuezhen1, N. Chengcheng1,2, Z. Qiongjie1,2, C. Xiaojun1,2, Chen Xiaojun Group

1Obstetrics and Gynecology Hospital of Fudan University, 2Shanghai Key Laboratory of Female Reproductive Endocrine Related Diseases, Shanghai, China

Objectives: To study the correlation of metabolic abnormalities and different endometrial hyperplasia and the possible role of metabolic abnormalities in the development of endometrial diseases.

Methods: 314 cases were enrolled from Obstetrics and Gynecology Hospital of Fudan University from Sep 2011 to Sep 2012, including 56 cases of disordered proliferative endometrium (DPE), 129 cases of simple hyperplasia (SH), 47 cases of complex hyperplasia (CH), 20 cases of endometrial atypical hyperplasia (EAH) and 23 cases of type I endometrial carcinoma (EC). 39 cases of non-endometrial proliferative diseases were used as control. The general information, serum sex hormones as well as blood lipids, IGF1, OGTT and insulin release test were examined. Statistical analysis was executed by SPSS19.0, and p<0.05 was chosen as significance test standard.

Results:

1. High FBG (fasting blood glucose) was a risk factor for EAH and type I EC, for EAH group, OR (odds ratio) 3.749, 95%CI (confidential interval): 1.401-10.033 (P=0.009), for type I EC group, OR=3.070(95%CI: 1.088-8.660 (P=0.034).

2. FINS (fasting insulin) was also a risk factor for all the above endometrial lesions. from DPE to type I EC, OR values are respectively (1.231, 1.250, 1.221, 1.284, 1.258, P< 0.05).

3. When HOMA1-IR (Homeostasis model assessment of insulin resistance) ≥2.8840, from DPE to type I EC, OR values were (9.536, 7.328, 9.812, 23.669 and 17.188, P< 0.05) respectively.

4. The proportion of MS (metabolic syndrome) in the edometrial lesion groups are all significantly higher than control group (2.56%, P=0.007).

Conclusion: Metabolic abnormalities widely exists in endometrial hyperplasia, from SH to type I EC. Also, metabolic disorder happens in DPE, which is a preceding event of endometrial benign hyperplasia. Metabolic abnormalities are likely to be a key factor in the development of endometrial hyperplasia.
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Poster Presentation: Uterine Cancer, including Sarcoma

COMPARISON OF STUMP WITH UTERINE LEIOMYOSARCOMA (LMS), BASED ON FNCLCC CRITERIA

G. Rasty, T. Wang, N. Ismiil, B. Dickson

Anatomic Pathology, University Health Network, University of Toronto, Toronto, ON, Canada

Background: Generally, uterine LMS is not graded. In the soft tissue, mitotic activity, cytological atypia, and/or tumour necrosis are used in the grading and staging of LMS. Similarly FIGO does not incorporate grading into tumor staging criteria. We explored the prognostic value of grading uterine LMS and smooth muscle tumours of uncertain malignant potential (STUMP) by using the Fédération Nationale des Centres de Lutte Contre le Cancer (FNCLCC) criteria.

Design: 78 cases (63 LMS and 15 STUMPs) were retrospectively reviewed by 3 pathologists. Cases were scored based on pleomorphism, mitotic activity and necrosis by FNCLCC criteria. Follow-up and survival data was collected and Kaplan Meier curve was plotted with stratification by grade. Univariate regression was also performed to correlate grade (G) with survival.

Results: Of the LMS's, 2 were G1 (3%), 16 were G2 (25%), and 45 were G3 (71%). For the STUMPs, 13 were G1 (87%), and 2 were G2 (13%). No deaths were reported for STUMPs, but 1 patient with G1 lesion had metastases. The 5-yr overall survival (OS) was 100% for G1 lesions, 86% for G2 and 18% for G3. For LMS, G3 lesions fared worse than G2 with 5-yr OS of 18% vs. 85% (hazard ratio 4.01, p=0.02).

Conclusions: Using FNCLCC criteria, most uterine STUMPs correspond to G1 soft tissue tumors which is similar to outcomes reported in literature for low grade non-uterine LMS. Almost all uterine LMS were G2 or 3 with worse survival for G3 LMS, suggesting prognostic value in reporting FNCLCC grade.
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SYNCHRONOUS PRIMARY CANCERS OF OVARY AND ENDOMETRIUMTREATED WITH FERTILITY PRESERVATION: CASE REPORT
W.Y. Kim
Kangbuk Samsung Hospital, Seoul, Republic of Korea

Background: Synchronous primary cancers of ovary and endometrium are relatively uncommon, and these show favorable pathologic features and have an excellent prognosis. However, the standard treatment has not been established.

Case: A 31-year-old woman presented with palpable abdominal mass which was suspected as ovarian cancer. She underwent fertility-sparing surgery, and the pathologic result was endometrioid adenocarcinoma, FIGO stage IC. After three cycles of adjuvant chemotherapy, synchronous primary endometrial cancer was found. Because she wanted to preserve her fertility, conservative treatment with megestrol acetate was given. The patient is having regular menstruation without any evidence of disease for 20 months following treatment.

Conclusion: Fertility-preserving treatment is worth consideration for young women with synchronous primary ovarian and endometrial cancer. However, the vigilance for recurrence is mandatory.
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EXPRESSION OF C-KIT, PDGFRα, AND PDGFRβ IN UTERINE SARCOMA

C.H. Lee¹, Y.S. Song²

¹Obstetrics and Gynecology, Dongguk University, Goyang, ²Obstetrics and Gynecology, Seoul National University, Seoul, Republic of Korea

Objectives: Uterine sarcomas are rare and aggressive gynecologic malignancies. Recently, the use of the tyrosine kinase inhibitor, imatinib mesylate, has resulted in the successful treatment of leukemias and gastrointestinal stromal tumors. The expression of c-kit, PDGFRα, and PDGFRβ in uterine sarcomas was evaluated to determine their role in the development of uterine sarcomas and identify the possibility of the therapeutic targets for uterine sarcoma.

Methods: Immunohistochemical staining for c-kit, PDGFRα, and PDGFRβ was performed on paraffin-embedded tissue blocks of 46 uterine sarcomas (22 leiomyosarcomas, 17 endometrial stromal sarcomas, and 7 carcinosarcomas). Tissue sections of uterine leiomyoma, normal myometrium and endometrium obtained from 5 hysterectomized patients for benign disease were stained for comparison. Positive staining was defined as moderate or strong staining in more than 10% of tumor cells.

Results: All uterine sarcomas lacked c-kit expression and only 6.5% (3/46) demonstrated positive staining for PDGFRα. By contrast, 97.8% (45/46) had positive staining for PDGFRβ. PDGFRβ expression was also found in normal endometrial glands and stroma. However, normal myometrium and leiomyomas did not show any PDGFRβ expression.

Conclusion: The universal expression of PDGFRβ suggests that PDGFRβ could be therapeutically targeted by the tyrosine kinase inhibitors in uterine sarcomas. The expression of PDGFRβ in leiomyosarcoma, but not in normal myometrium and leiomyoma, indicates a role for this receptor in the development of leiomyosarcoma.
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TRANSVAGINAL ULTRASOUND AND HISTOPATHOLOGIC EXAMINATION FOR INVESTIGATION OF INTRAUTERINE LESIONS IN WOMEN WITH POSTMENOPAUSAL BLEEDING

A.D. Putra1,2, R.L. Avriyani1,2, A.A.R.D. Maharani1,2, Nuryasni1,2, Andrijono1,2, L. Nuranna1,2, S. Purbadi1,2, G. Purwoto1,2, H. Winarto1,2, F. Kusuma1,2, T.D. Anggraeni1,2, T.W. Utami1, K.H. Nuryanto1,2

1Faculty of Medicine, University of Indonesia, 2Obstetrics & Gynecology, Dr. Cipto Mangunkusumo Hospital, Jakarta, Indonesia

Background: The aim of this retrospective study was to evaluate the diagnostic value of Transvaginal Sonography (TVS) compared to hystopathologic examination.

Methods: A total of 79 of woman presenting post menopausal bleeding were identified from registry data from two hospital in Jakarta and Depok, Indonesia. We searched data in medical records which showed the transvaginal sonography (TVS) and Dilatation and Curettage performed on the patients.

The histopathologic findings (gold standard) were compared with the results obtained from TVS. Sensitivity, specificity, positive predictive value (PPV), negative predictive value (NPV) were calculated by comparing the results of each method with those obtained by gold standard for detecting growing lesions in the uterine cavity.

Results: 79 women (aged 50-71 years) with postmenopausal bleeding were included into our study. The endometrial thickness measured on TVS was less than 5 mm in 5 patients (10.4%), 5-10 mm in 8 patients (16.7%), and greater than 10 mm in 35 patients (72.9%). TVS demonstrated 93.2% sensitivity and 40% specificity in diagnosing intracavitary abnormalities. PPV was 87.3% and NPV was 33.3%. On diagnosing carcinoma, TVS showed 80% sensitivity 50% specificity and 66.7% for NPV and PPV. TVS failed to identify one patient with carcinoma, whereas it over diagnosed four patients as carcinoma.

Conclusion: In experienced hands, TVS has approximately similar diagnostic value compared to D&C examination for detecting intra-uterine lesions in women with postmenopausal bleeding.
Poster Presentation: Uterine Cancer, including Sarcoma

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CONSERVATIVE MANAGEMENT IN YOUNG PATIENT WITH EARLY STAGE ENDOMETRIAL CANCER - A CASE REPORT AND A REVIEW OF LITERATURE

R. Prastasari\textsuperscript{1,2}, T.D. Anggraeni\textsuperscript{1,2}

\textsuperscript{1}Faculty of Medicine, University of Indonesia, \textsuperscript{2}Obstetrics and Gynecology, Dr Cipto Mangunkusumo Hospital, Jakarta, Indonesia

**Background/ aims:** Endometrial Cancer (EC) is usually found in older, peri or postmenopausal women. The incidence in the young women (< 40 yrs) is low. The gold standard treatment of this condition is total hysterectomy and bilateral salpingo-oophorectomy (TH-BSO) that has impact on loss of fertility. Those young women who need to preserve their fertility can be offered conservative management. This paper reports a young lady with EC received conservative management but failed then underwent surgery.

**Methods:** A case was presented and a review literature was undertaken.

**Result:** An infertile 35 years lady was diagnosed having well differentiation endometrioid endometrial cancer without myometrial invasion. This lady was treated conservatively using Medroxy Progesterone Acetate but she was lost to follow up and failed the medication then underwent surgery.

**Conclusion:** Young patients with endometrial cancer who fulfill the criteria can be offered conservative management but close monitoring is very important. Patient's compliance and financial condition must be confirmed before conservative management decided. Surgery should be considered on progressive, relapse or completed childbearing cases.
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Poster Presentation: Uterine Cancer, including Sarcoma
ENDOMETRIAL CARCINOMA: 6 YEARS EXPERIENCE AT AHRCC, CUTTACK, INDIA
S.K. Giri, A.K. Padhy, J. Parija, B. Nayak
Gynaecologic Oncology, A.H. Regional Cancer Centre, Cuttack, India

Objectives: The aim of the study was to evaluate the incidence of various HP types of endometrial carcinoma, incidence as per age, parity, stages, grades, clinical presentations, pre operative investigations & various type correlations between grade, myo-invasion & Lymph node metastases.

Methods: Retrospective analytical study of total 73 patients of endometrial carcinoma during a period of 5 years at the Dept of Gynecologic Oncology, AHRCC basing on patient’s data register.

Results:
· Endometroid adenocarcinoma 75.3%, Uterine Papilary Serous 12.3%, Squamous Cell & Clear Cell 5.4% each & Malignant Mixed Mullerian tumour 1.3%.

· Common in age group of 51 to 60 years. The average age of Adeno Ca is 55 years, Clear Cell 63 years, Uterine papillary serous 56.5 years.

· Maximum no. of patients had moderately differentiated Carcinoma G 2

· 15% did not require any adjuvant therapy, were advised for regular follow up. About 47 % cases both EBRT & Brachy were indicated, 18% patients received Vault brachy therapy only.

· 10 cases revealed Pelvic Lymph node positivity i.e 13.6%. Most cases where Pelvic Lymph node were positive were Poorly differentiated with more than 50% myo invasion.

Conclusion: Endometroid adeno carcinoma is the most common histological type. Our study revealed multiparous are common group. Pre operative Most of patients with Ca Endometrium present in early Stage i.e stage I where but maximum are moderately
Poster Presentation: Uterine Cancer, including Sarcoma
ENDOMETRIAL CARCINOMA: 6 YEARS EXPERIENCE AT AHRCC, CUTTACK, INDIA

S.K. Giri, A.K. Padhy, J. Parija, B. Nayak

Gynaecologic Oncology, A.H. Regional Cancer Centre, Cuttack, India

Objectives: The aim of the study was to evaluate the incidence of various HP types of endometrial carcinoma, incidence as per age, parity, stages, grades, clinical presentations, pre operative investigations & various type correlations between grade, myo-invasion & Lymph node metastases.

Methods: Retrospective analytical study of total 73 patients of endometrial carcinoma during a period of 5 years at the Dept of Gynecologic Oncology, AHRCC basing on patient's data register.

Results:

- Endometroid adenocarcinoma 75.3%, Uterine Papillary Serous 12.3%, Squamous Cell & Clear Cell 5.4% each & Malignant Mixed Mullerian tumour 1.3%.

- Common in age group of 51 to 60 years. The average age of Adeno Ca is 55 years, Clear Cell 63 years, Uterine papillary serous 56.5 years.

- Maximum no. of patients had moderately differentiated Carcinoma G 2

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Poster Presentation: Uterine Cancer, including Sarcoma

DOES ROBOTIC HYSTERECTOMY INCREASE THE INCIDENCE OF LYMPHOVASCULAR SPACE INVASION IN ENDOMETRIAL CANCER?

B. Alosh¹, S. Bandyopadhyay², Q. Ahmad², Z. Al-Wahab¹, R. Ali-Fehmi²
¹Wayne State University, ²Pathology, Wayne State University, Detroit, MI, USA

Background: Uterine manipulators are a useful adjunct for robotic-assisted laparoscopic hysterectomy (RALH), but some surgeons avoid their use for fear of altering pathology or interpretation of lymphovascular space invasion LVSI.

The aim of the study is to compare the incidence of LVSI in FIGO stages IA, IB and II endometrial cancer operated by laparotomy (TAH) vs. RALH

Design: We retrospectively compared patients with endometrial cancer operated by laparotomy (TAH) vs. RALH. The data was reviewed for age, tumor histology, grade, FIGO stage, LVSI, depth of invasion, and tumor size.

Results: 365 endometrial cancer cases (223 TAH, 142 RALH) with stages IA (115), IB (180) and II (70) diseases were reviewed. Histology types were endometrioid (68%), serous (9%), carcinosarcoma (5%) and others (18%).

LVSI was identified in 161 cases (44%) including 48 stage IA (41%), 77 IB (42%) and 36 stage II (52%).

RALH group has a statistically significantly higher LVSI for stage IA (p=0.013) but not stage IB (p=0.65) or II (p=0.28) compared to the TAH group.

LVSI by stage

TAH %  
RALH %

p- Value

Yes

No

Yes

No

1

80

92

52

72

IA

13
There was no difference in LVSI when only uterine serous tumors were analyzed.

**Conclusion:** RALH cases that utilized uterine manipulator show a significantly higher LVSI rate in stage IA but not in stage IB or II diseases.
Poster Presentation: Uterine Cancer, including Sarcoma
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<table>
<thead>
<tr>
<th>Stage</th>
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<tbody>
<tr>
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Poster Presentation: Uterine Cancer, including Sarcoma
TAXAN-PLATINUM BASED EXTENDED FIELD POST-OPERATIVE CHEMORADIATION IN ENDOMETRIAL CANCER STAGE IIB-III PATIENTS WITH POOR PROGNOSIS

J.M. Kreynina, L.N. Shevchenko, A.N. Shipilova, V.A. Titova
Brachytherapy, RNCRR, Moscow, Russia

One-year morbidity is more than 40% in patients with locally advanced / metastatic endometrial cancer (EC) IIb-III. Postoperative chemoradiation - image-guided extended field radiotherapy and TP chemotherapy - can improve treatment results.

Materials and methods: 37 pts. EC T2b-3cNo-1Mo-1, 38 - 73 y.o. after radical hysterectomy were included, with pelvic lymph node (LN) dissection in 22(59,4%) pts., pelvic-paraaortic- 15 (40,5%), omentectomy - 12 (32,4%). After surgery 9 pts (24,3%) with ovarian metastases (T3a) underwent only brachytherapy Co-60, Ir-192 HDR, TD 30-40Gy to vaginal cuff, 21-24Gy to mucosa with carboplatinum AUC2 intraperitoneally on 3-6 day after surgery. Adjuvant paclitaxel 175mg/m2,carboplatinum AUC 5-6, 3-9 cycles, were then performed.

In 28 T2b,T3b pts. (75,7%) 4-6 cycles of full-dose TP chemotherapy had been performed concomitantly with radiotherapy, TD 30-34Gy to the central pelvic structures, 44-46Gy to pelvic LN area in 2-2,2Gy fractions, with extention to paraaortic area (upper level L1-Th12), TD40Gy, in N1 pts. No specific prevention for gastro-intestinal (GIT) or urinary complications, G-CSF 600mcg weekly to prevent predicted hematological toxicity.

Results: In 36 months 27pts (72,9%) are still alive. No evidence of progression in 15 (40,5%) pts, local recurrences - 4 pts (10,8%), LN recurrences - 2 pts. (5,4%), distant metastases (pulmonal, bone) - 4 pts. (16%). No severe complications were registered, GIT I-II - 56%, III - 4%, thrombocytopenia I-II - 24%, III-4%.

Conclusion: Concomitant image-guided extended field radiotherapy and taxan-platinum chemotherapy is tolerable and perspective way for disease control in EC patients with poor prognosis.
Poster Presentation: Uterine Cancer, including Sarcoma
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Survival Outcome in Endometrial Cancer Patients According to Hereditary Predisposition

M.C. Lim, M.Y. Lee, H.J. Yoo, S.Y. Park

Center for Uterine Cancer, National Cancer Center, Goyang-si, Republic of Korea

Objective: To assess the prognostic role of heredity in endometrial cancer, we investigated the incidence of synchronous malignancy in patients with endometrial cancer.

Methods: We retrospectively evaluated patients with endometrial cancer who underwent surgery from January 2001 to April 2011. A hereditary background is defined as double primary cancer: endometrial cancer accompanied by colon, ovarian, or breast cancer suggestive of Lynch syndrome, hereditary breast ovarian cancer syndrome, or Cowden syndrome, respectively.

Results: Among 282 patients with endometrial cancer, 20 (7.1%) had a hereditary predisposition: 10 (3.5%) had ovarian cancer, 6 (2.1%) had breast cancer and 4 (1.4%) had colon cancer. Age and lower uterine segment involvement were not statistically different between the hereditary and non-hereditary groups. The majority of women in the hereditary group presented stage I cancer; however, there were no significant differences in Stage I between the hereditary group and the sporadic endometrial cancer group (85% and 77%, respectively, p=0.561). The median follow-up period was 60 months. Five year overall survival rate was not different between the two groups (95% and 95%, respectively, p=0.659). Among a subgroup of stage I, 5 year overall survival rate was lower in women with hereditary predisposition (98% and 94%, respectively, p=0.027).

Conclusion: Seven percent of the women with endometrial cancer in this study had other malignancies such as ovarian, colon, or breast cancer synchronously. Among a subgroup of stage I, 5 year overall survival rate was significantly low in endometrial cancer with hereditary predisposition. This finding should be confirmed in larger populations.
Poster Presentation: Uterine Cancer, including Sarcoma
SURVIVAL OUTCOME IN ENDOMETRIAL CANCER PATIENTS ACCORDING TO HEREDITARY PREDISPOSITION

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Poster Presentation: Uterine Cancer, including Sarcoma

COMBINED IMRT AND VAGINAL-CUFF BRACHYTHERAPY FOR GYNECOLOGICAL CANCER - A DOSIMETRIC ANALYSIS

K.M. Lee¹, P.W. Tan¹, Y.I. Tan¹, B.A. Choo¹, J. Low²

¹Radiation Oncology, ²Gynecology Oncology, NUHS, Singapore, Singapore

Intensity-modulated radiotherapy (IMRT) is an advanced form of external beam radiotherapy for many cancers. Clinical studies have shown the benefit of IMRT in reducing gastro-intestinal (GI) and genito-urinary (GU) toxicities when used for pelvic irradiation for gynecology cancers. High dose-rate vaginal-cuff brachytherapy (VCB) is also commonly used to reduce local recurrence rates of endometrial cancers after surgery, either alone or in combination with external beam radiotherapy. With 3D-CT planning for both IMRT and VCB, a detailed dosimetric analysis can be performed to assess the combined dose distribution on relevant organs at risk. To evaluate the feasibility and safety of combining IMRT with VCB, we reviewed our early experience with IMRT for gynecology cancers in combination with VCB. Reference dose parameters based on dose volume histograms (DVH) analyses for rectum, bladder and sigmoid colon are collated and compared with conventional radiotherapy.
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ROLE OF CHROMOHYSTEROGRAPHY IN DETECTING ENDOMETRIAL DISEASE IN PERIMENOPAUSAL PATIENTS WITH ABNORMAL UTERINE BLEEDING (AUB)

I. Prasad, K. Aggarwal, S.S. Trivedi

Obstetrics & Gynaecology, Lady Hardinge Medical College, New Delhi, India

Aim: To evaluate chromohysteroscopic findings in perimenopausal patients with AUB

Study Methods: A prospective study was conducted in 100 perimenopausal women with AUB who underwent conventional hysteroscopy and chromohysteroscopy followed by the guided biopsy of the endometrial tissue.

Results: Mean age of the study group was 43.49 yrs, mean parity was 3 and mean BMI was 25.41. Conventional hysteroscopy revealed normal cavity in 59 cases, intracavitary lesions were detected in 26 cases (submucous fibroids in 14, endometrial polyps in 11, and growth with areas of necrosis in one case), synechiae in 2 cases, diffuse endometrial disease was suspected in 17 cases (hyperplastic in 13 cases and polypoidal in 4 cases. On chromohysteroscopy it was found that the endometrium in 80% cases was homogenously stained, 17% was partially stained and 3% cases got darkly stained. On histopathology, abnormal findings were detected in 13 cases, polypoidal endometrium. On comparing conventional hysteroscopic, chromohysteroscopic and histopathologic findings it was found that conventional hysteroscopy missed 10 out of 13 cases with endometrial pathology. Its diagnostic accuracy of conventional hysteroscopy in detecting endometrial disease was found to be very poor. (Sensitivity-23.07 %, specificity- 83.90%, negative predictive value 87.95%, positive predictive value- 17.64 %). Whereas, chromohysteroscopy detected 9 out of 13 cases with endometrial disease and its diagnostic accuracy was found to be much higher (Sensitivity-69.23 %, specificity- 87.35%, negative predictive value 95.0%, positive predictive value- 45%).

Conclusion: Chromohysteroscopy is a useful adjunct to conventional hysteroscopy that facilitated the detection as well as exclusion of endometrial diseases.
Poster Presentation: Uterine Cancer, including Sarcoma

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Poster Presentation: Vulvar and Vaginal Cancer

HER2 AMPLIFICATION IN SQUAMOUS CELL CARCINOMAS OF THE VULVA

M. Choschzick

University Medical Centre Hamburg-Eppendorf, Hamburg, Germany

Background: HER2 amplification has been reported in a variety of cancer types and is usually linked to poor clinical outcome. In order to gain more insight into frequency and level of HER2 amplification in vulvar cancer a comprehensive analysis of a large number well-characterized vulvar carcinomas with clinical follow-up data was conducted by Fluorescence in situ hybridization (FISH).

Methods: A total of 183 vulvar squamous cell carcinomas were available in a tissue microarray format. The probe for analysis of HER2 was provided by Abbott Laboratories (Abbott Park, Illinois, USA). Analysis of HER2 amplification status was carried out according to the 2007 guidelines by the American Society of Clinical Oncology. Immunohistochemical analysis of HER2 expression was conducted with a commercially available antibody (HercepTest; DakoCytomation).

Results: HER2 amplification was found in 3 (1.9%) out of 154 assessable vulvar cancers. Amplification levels were high with a minimum of 10 and a maximum of 40 FISH signals per nucleus. Whole tissue sections were hybridized to validate the TMA results. Two out of three HER2 amplified cases showed a homogeneous amplification pattern. The remaining tissue sample was heterogeneously amplified with sharp transition between amplified and non-amplified tumour areas. Immunohistochemically, all HER2 amplified vulvar carcinomas showed strong HER2 overexpression (score 3+).

Conclusions: HER2 amplification was a rare event (1.9%) in our cohort of 183 vulvar carcinomas. Clinical studies about the efficacy of anti-HER2 therapies in vulvar cancer have to be done to further evaluate the benefit of these drugs in this challenging patient group.
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ANGIOMYOFIBROBLASTOMA OF THE VULVA: A CASE REPORT AND LITERATURE REVIEW

K. Hong Bae, S.T. Park, S.H. Park

Department of Obstetrics and Gynecology, Kangnam Sacred Heart Hospital, The Hallym University, Seoul, Republic of Korea

Benign mesenchymal tumors of the vulva are rare. Among them, angiomyofibroblastoma is one that occurs predominantly in the vulvar area of premenopausal women. The treatment of choice is simple excision and the tumor rarely recurs after complete resection. Aggressive angiomyxoma should be ruled out before the surgery. Here, we report a case of angiomyoblastoma in a 51-year-old woman who complained of a painless mass.
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Poster Presentation: Vulvar and Vaginal Cancer
SEBACEOUS CARCINOMA OF VULVA

J.W. Shin, C.H. Ku

Obstetrics and Gynecology, Gachon University Gil Medical Center, Incheon, Republic of Korea

The Sebaceous Carcinoma of vulva is rare and its pathophysiologic feature is not well known. The authors report a case of Sebaceous Carcinoma arising from vulva.

A 65 years old woman visited the clinic with a complaint of palpable mass on right vulva area.

A small mass on right vulva was palpated since 15 years ago but was ignored. From 2 months ago, the mass have gowned and make discomfort her that takes her to hospital.

The mass was cylindrical sized by 3 cm in diameter and 4 cm in height. The base of the mass was soft and not fixed to the deep perineal tissue. Surgical excision of mass was done under IV anesthesia.

The pathologic examination was revealed by sebaceous carcinoma arising from vulva. The resection margin was negative for malignancy. Imaging studies including pelvis MRI, abdominal CT, and PET CT didn't demonstrate any metastatic lesion. She was on the schedule of periodic examination without adjuvant treatment.

The Sebaceous Carcinoma of vulva is seemed to have indolent course and less aggressive nature than other gynecologic cancer.
Poster Presentation: Vulvar and Vaginal Cancer
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Poster Presentation: Vulvar and Vaginal Cancer
CARCINOMA OF VULVA- LOCAL EXPERIENCE IN LAST 2-YEARS AT LUDHIANA MEDIWAYS HOSPITAL IN NORTHERN INDIA

V. Jain¹, S. Jain², S. Jain³

¹Gynaecology Oncology, Ludhiana Mediways, ²Surgical Oncology, Tata Memorial Cancer Hospital, ³Surgical Oncology, Ludhiana Mediways, Ludhiana, India

Vulvar cancer constitutes 1-2% of all female cancers and 4% of all Gynaecologic cancers. These are slow growing tumors. Most common histopathologic type is squamous cell seen in 90% of cases. Labia majora is the commonest site seen in nearly 50% of cases. Biopsy is required for confirmation of diagnosis. CT/ MRI may be done prior to surgery for staging. Early stage disease has good prognosis with 5 yr survival rates of 60-70%. Surgery remains the mainstay of treatment. Three-incision approach and now selective procedures of hemivulvectomy and local wide excision are sufficient for management of local disease on an individualized basis. The authors present experience of 11 patients of Ca vulva in 2yrs from July 2010 to June 2012. Age group varied from 55-80yrs. The site of lesion was labia majora in 4 cases, labia minora 2, clitoris in 5. In all patients histopathology was Squamous cell Carcinoma. 5 patients underwent Radical vulvectomy. In 2 patients Radical vulvectomy with distal uretherectomy was done. 3 patients underwent hemivulvectomy and one had local wide excision. Bilateral inguinoferomal lymphadenectomy was done in 10 patients. In one patient unilateral lymphadenectomy was done. 3 patients received adjuvant radiotherapy. In follow up which ranges from 6-months-21/2yrs, most of the patients are doing well. Overall survival 81.45%(9 patients. Disease free survival is 72.4%(8 patientss) One patient had local reccurence. 2 patients died of metastasis. In early stage disease, results of surgery are gratifying. In selected cases, limited surgery can be considered.
**Poster Presentation: Vulvar and Vaginal Cancer**

**CARCINOMA OF VULVA- LOCAL EXPERIENCE IN LAST 2-YEARS AT LUDHIANA MEDIWAYS HOSPITAL IN NORTHERN INDIA**

V. Jain¹, S. Jain², S. Jain³

¹Gynaecology Oncology, Ludhiana Mediways, ²Surgical Oncology, Tata Memorial Cancer Hospital, ³Surgical Oncology, Ludhiana Mediways, Ludhiana, India

Vulvar cancer constitutes 1-2% of all female cancers and 4% of all Gynaecologic cancers. These are slow growing tumors. Most common histopathologic type is squamous cell seen in 90% of cases. Labia majora is the commonest site seen in nearly 50% of cases. Biopsy is required for confirmation of diagnosis. CT/ MRI may be done prior to surgery for staging. Early stage disease has good prognosis with 5 yr survival rates of 60-70%. Surgery remains the mainstay of treatment. Three-incision approach and now selective procedures of hemivulvectomy and local wide excision are sufficient for management of local disease on an individualized basis. The authors present experience of 11 patients of Ca vulva in 2yrs from July 2010 to June 2012. Age group varied from 55-80yrs. The site of lesion was labia majora in 4 cases, labia minora 2, clittoris in 5. In all patients histopathology was Squamous cell Carcinoma. 5 patients underwent Radical vulvectomy. In 2 patients Radical vulvectomy with distal uretherectomy was done. 3 patients underwent hemivulvectomy and one had local wide excision. Bilateral inguinofemoral lymphadenectomy was done in 10 patients. In one patient unilateral lymphadenectomy was done. 3 patients received adjuvant radiotherapy. In follow up which ranges from 6-months-21/2yrs, most of the patients are doing well. Overall survival 81.45%(9 patients. Disease free survival is 72.4%(8 patientss) One patient had local recurrence. 2 patients died of metastasis. In early stage disease, results of surgery are gratifying. In selected cases, limited surgery can be considered.
Poster Presentation: Vulvar and Vaginal Cancer
V-Y ADVANCEMENT FLAP AFTER WIDE VULVAR TUMOR EXCISION

R. Ramanah¹,², C. Toubin², D. Riethmuller¹,²
¹Gynecologic Surgery, Besancon University Medical Center, ²University of Franche-Comte, Besançon, France

Introduction: V-Y gluteal advancement flap is a useful procedure for vulvovaginal reconstruction after wide vulvar tumor excision.

Case report: A 61-year-old woman had a diagnosis of squamous cell carcinoma after primary partial excision of a left Bartholin gland cyst. Magnetic resonance imaging showed residual tumor of 5 cm extending in the ischiorectal fossa. Whole body Positron Emission Tomography scan detected metastatic disease in one left inguinal lymph node only. The surgical steps for a wide left vulvar tumor excision with bilateral inguinofemoral lymph node dissection and vulvovaginal reconstruction by a V-Y gluteal advancement flap are described in a video presentation. Pudendal vessels irrigating the flap are identified prior to the advancement so as to reduce any risk of flap necrosis.

A squamous cell carcinoma of 5.3 x 3.5 cm was completely excised with a margin status > 1 cm. Lymph node inguinofemoral dissection found respectively 2 metastatic left nodes and 1 metastatic right node. No postoperative complication occurred as the flap proved to be tension-free with no flap necrosis and no scar breakdown. The patient received adjuvant combined pelvic radiotherapy and chemotherapy.

Conclusion: One year after initial treatment, the patient is disease-free and presents excellent functional and aesthetic results. The V-Y advancement flap is an easy and efficacious technique of vulvovaginal reconstruction after wide vulvar tumor excision requiring adequate margin status.
Abstracts presented at the International Gynecologic Cancer Society Regional Meeting, April 11-13, 2013

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TREATMENT OUTCOME OF PATIENTS WITH VULVAR CARCINOMA (VC): EXPERIENCE WITHIN A SHORT PERIOD OF TIME

S. Pervin
Gynae Oncology, National Institute of Cancer Research and Hospital, Dhaka, Bangladesh

Background and aims: In Bangladesh no such type of study was looked for the management of vulvar carcinoma. The aim of the study was to analyze and report the clinical outcome of patients with vulvar carcinoma treated within a short period of time and the challenges for their management.

Methods: For this retrospective type of study 10 VC patients were received over a period of only six months. (October 2010-March 2011). The variables of the case records are age of the patients, stage of the disease, histopathological type, grading of the disease, treatment given and complications. Overall survival was determined with respect of age, staging and grading of disease, pathological lymphnode status and treatment group.

Results: Total 10 cases were received for this retrospective type of study. Age ranged from 45-70 years. (median 59 years). Stage distribution was as follows: stage ii 1 patient, stage iii 9 patients. 1 patient was well differentiated, 7 were moderately differentiated, 2 were poorly differentiated. 1 had no lymphnode involvement, 2 had single lymph node involvement and rest had more than one lymphnode involved. 9 patients had squamous cell carcinoma, rest had adenocarcinoma (Bartholin gland malignancy). Two patients underwent wide local excision, rest modified radical vulvectomy. Maximum patients underwent either preoperative or postoperative chemo radiation (4&3) and 2 got only radiation & single patient got no adjuvant therapy. All patients were in regular follow-up.

Conclusion: Despite majority of the patients presenting in advanced stage and in advanced age therapeutic outcome was good.
Poster Presentation: Vulvar and Vaginal Cancer

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