BREAST

Original Articles

583  Optimizing Perforator Selection: A Multivariable Analysis of Predictors for Fat Necrosis and Abdominal Morbidity in DIEP Flap Breast Reconstruction
   Austin Hembd, M.D., Sumeet S. Teotia, M.D., Hong Zhu, Ph.D., and Nicholas T. Haddock, M.D.

252  Transversus Abdominis Plane Blocks in Microsurgical Breast Reconstruction: Analysis of Pain, Narcotic Consumption, Length of Stay, and Cost
   Ara A. Salibian, M.D., Jordan D. Frey, M.D., Vishal D. Thanik, M.D., Nolan S. Kap, M.D., and Mihye Choi, M.D.
   SUPPLEMENTAL DIGITAL CONTENT IS AVAILABLE IN THE TEXT.

594  Comparison of Immediate versus Delayed DIEP Flap Reconstruction in Women Who Require Postmastectomy Radiotherapy
   EVIDENCE-BASED OUTCOMES ARTICLE.

607  Novel Approach for Risk-Reducing Mastectomy: First-Stage Implant Placement and Subsequent Second-Stage Mastectomy
   Geok Hoon Lim, F.R.C.S., and Andrew D. Baildam, F.R.C.S.
Special Topic

611 Opioid Use following Outpatient Breast Surgery: Are Physicians Part of the Problem?
Alexandra M. Hart, M.D., Justine S. Broecker, M.D., Leslieann Kao, M.D., and Albert Losken, M.D.

621 Discussion: Opioid Use following Outpatient Breast Surgery: Are Physicians Part of the Problem?
Rajiv P. Parikh, M.D., M.P.H.S., and Terence M. Myckatyn, M.D.

Video+

624 Robotic Nipple-Sparing Mastectomy with Immediate Prosthetic Breast Reconstruction: Surgical Technique
Benjamin Sarfati, M.D., Samuel Struk, M.D., Nicolas Leymarie, M.D., Jean-François Hovart, M.D., Heba Alkhashnam, M.D., Frédéric Kolb, M.D., and Françoise Rimareix, M.D.

VIDEO PLUS CONTENT IS AVAILABLE ONLINE.

COSMETIC

Baker Gordon Symposium Video
PRSjournal.com Exclusive

Surgery Video
Primary Open Rhinoplasty
Rod J. Rohrich, M.D.

In his open approach to a primary rhinoplasty patient with complex midvault and tip projection and shaping problems, Dr. Rohrich demonstrates how plastic surgeons can develop specific management pathways or algorithms for treating midvault problems, tip projection, and shaping issues in a methodical manner to obtain more consistent, good results in this complex procedure in plastic surgery.

Lecture Video
Techniques to Preserve the Dorsal Aesthetic Lines in Primary Rhinoplasty
Rod J. Rohrich, M.D.

Managing the midvault to obtain consistent excellent dorsal aesthetic lines (DALs) in rhinoplasty is a very challenging procedure. This lecture provides you with the correct graduated approach to reshaping and restoring, as well as to preserving the DALs in primary rhinoplasty, by advocating preservation of the upper lateral cartilages so one can use either a suture-only or spreader flaps and only use spreader grafts if needed.

To watch the surgery and lecture videos, go to www.PRSjournal.com.

Original Articles

629 The Use of Bone Dust to Correct the Open Roof Deformity in Rhinoplasty
Süleyman Taş, M.D.
SUPPLEMENTAL DIGITAL CONTENT IS AVAILABLE IN THE TEXT.

273e Topographic Anatomy of the Infraorbital Artery and Its Clinical Implications for Nasolabial Fold Augmentation
Hong-San Kim, Ph.D., Kye-Lim Lee, B.P.E., Young-Chun Gil, Ph.D., Kyung-Seok Ha, D.D.S., Ph.D., Tanvaa Tansatit, M.D., M.Sc., and Hee-Jin Kim, D.D.S., Ph.D.

Continued
Evaluation of the Microbotox Technique: An Algorithmic Approach for Lower Face and Neck Rejuvenation and a Crossover Clinical Trial
Cyril J. Awaida, M.D., Samer F. Jabbour, M.D., Yousef A. Rayess, M.D., Joseph S. El Khoury, M.D., Elio G. Kechichian, M.D., and Marwan W. Nasr, M.D.

SUPPLEMENTAL DIGITAL CONTENT IS AVAILABLE IN THE TEXT.

Discussion: Evaluation of the Microbotox Technique: An Algorithmic Approach for Lower Face and Neck Rejuvenation and a Crossover Clinical Trial
Val Lambros, M.D.

Not All Breast Implants Are Equal: A 13-Year Review of Implant Longevity and Reasons for Explantation
Aaron C. Van Slyke, M.D., M.Sc., Michael Carr, B.Sc., and Nicholas J. Carr, M.D.

Discussion: Not All Breast Implants Are Equal: A 13-Year Review of Implant Longevity and Reasons for Explantation
Maurice Y. Nahabedian, M.D.

Seasonal Impact on Surgical-Site Infections in Body Contouring Surgery: A Retrospective Cohort Study of 602 Patients over a Period of 6 Years
Dominik Duscher, M.D., David Kiel, M.D., Matthias Michael Aitzetmüller, M.D., Raphael Wenny, M.D., Karl Schableger, M.Sc., Clement Johannes Staud, M.D., Michael Stefan Polhammer, M.D., Andreas Shamiyeh, M.D., and Georg M. Huener, M.D., M.Sc., M.B.A.

SUPPLEMENTAL DIGITAL CONTENT IS AVAILABLE IN THE TEXT.

When Is Teenage Plastic Surgery versus Cosmetic Surgery Okay? Reality versus Hype: A Systematic Review
Rod J. Rohrich, M.D., and Min-Jeong Cho, M.D.

A Report of 736 High-Definition Lipoabdominoplasties Performed in Conjunction with Circumferential VASER Liposuction
Alfredo Hoyos, M.D., Mauricio E. Perez, M.D., David E. Guarin, M.D., and Alvaro Montenegro, M.D.

SUPPLEMENTAL DIGITAL CONTENT IS AVAILABLE IN THE TEXT.

Discussion: A Report of 736 High-Definition Lipoabdominoplasties Performed in Conjunction with Circumferential VASER Liposuction
Simeon H. Wall, Jr., M.D., and Jeffrey R. Claiborne, M.D.

Human Acellular Dermis as Spacer for Small-Joint Arthroplasty: Analysis of Revascularization in a Rabbit Trapeziectomy Model
Kian Banks, M.D., Lee Squitieri, M.D., Ph.D., Athanasios Bramos, M.D., Maxwell B. Johnson, M.D., Daniel J. Gardner, M.D., Austin J. Pournoussa, M.A., Eunson Jung, M.S., Gene K. Lee, M.D., David P. Perrault, M.D., Alexander Fedenko, M.D., Gene H. Kim, M.D., Bo Han, Ph.D., Young-Kicen Hong, Ph.D., David A. Kalber, M.D., and Alex K. Wong, M.D.

Changes in Cutaneous Gene Expression after Microvascular Free Tissue Transfer in Parry-Romberg Syndrome
Jenny Tzu-Jane Chen, M.D., Brian Eisinger, Ph.D., Corinne Esquibel, Ph.D., Samuel O. Poore, M.D., Ph.D., Kevin Elias, Ph.D., and John W. Siebert, M.D.

Critical Ischemia Time, Perfusion, and Drainage Function of Vascularized Lymph Nodes
Chin-Yu Yang, M.Sc., Olivia A. Ho, M.D., Ming-Hwui Cheng, M.D., M.B.A., and Hui-Yi Hsiao, Ph.D.
Role of Thrombospondin-1 and Nuclear Factor-κB Signaling Pathways in Antiangiogenesis of Infantile Hemangioma
Weili Xu, M.D., Ph.D., Suolin Li, M.D., Fengxue Yu, M.D., Ph.D., Yongting Zhang, B.S., Xiaofeng Yang, M.M., Wenbo Wang, M.M., and Chi Sun, M.M.
SUPPLEMENTAL DIGITAL CONTENT IS AVAILABLE IN THE TEXT.

The Use of Antidotes for Calcium Gluconate Extravasation: An Experimental Study in Mice
Francisco Javier Sánchez Pacheco, M.D., José Midón Míguez, M.D., Ph.D., Francisco Javier de Toro Santos, M.D., Ph.D., Alberto Centeno Cortés, D.V.M., Patricia López San Martín, D.V.M., María Teresa Yebra-Pinentel Vidal, M.D., and Joaquín José Mosquera Osés, M.D.

Secondary Surgery following Initial Replantation/Revascularization or Completion Amputation in the Hand or Digits

Discussion: Secondary Surgery following Initial Replantation/Revascularization or Completion Amputation in the Hand or Digits
Brett T. Phillips, M.D., M.A., and Edward I. Chang, M.D.

Concepts and Artistry in the Treatment of Scapholunate Ligament Injuries
Kate E. Elzinga, M.D., Sirichai Kamnerdnakta, M.D., and Kevin C. Chung, M.D., M.S.
SUPPLEMENTAL DIGITAL CONTENT IS AVAILABLE IN THE TEXT.

Salter-Harris Fractures of the Distal Phalanx: Treatment Algorithm and Surgical Outcomes
CODING PERSPECTIVE FOR THIS ARTICLE IS ON PAGE 728.

Logistics in Coordinating the First Adult Transatlantic Bilateral Hand Transplant: Lessons Learned
Oded Ben-Amotz, M.D., Erwin A. Kruger, M.D., Christine McAndrew, P.A.-C., Laurent Landier, M.D., David Bozenina, M.D., David Steinberg, M.D., Benjamin Chang, M.D., and L. Scott Levin, M.D.
SUPPLEMENTAL DIGITAL CONTENT IS AVAILABLE IN THE TEXT.

Cost-Effectiveness Analysis of Demineralized Bone Matrix and rhBMP-2 versus Autologous Iliac Crest Bone Grafting in Alveolar Cleft Patients
Sagar Mehta, M.D., Ross Blagg, M.D., James Wilcockson, M.D., Barbu Gociman, M.D., Ph.D., Duane Yamashiro, D.M.D., and Faizi Siddiqi, M.D.

Discussion: Cost-Effectiveness Analysis of Demineralized Bone Matrix and rhBMP-2 versus Autologous Iliac Crest Bone Grafting in Alveolar Cleft Patients
Richard A. Hopper, M.D., M.Sc., and Hitesh Kapadia, D.D.S., Ph.D.
334e Abandoning the Supraorbital Bandeau in Anterior Craniosynostosis Repairs, for a Single-Segment Reconstruction
Jeffrey A. Fearon, M.D., Kanlaya Ditthakasem, M.N.S., R.N., Jose Castro Garcia, M.D., and Morley Herbert, Ph.D.

747 Refining Post–Orthognathic Surgery Facial Contour with Computer-Designed/Computer-Manufactured Alloplastic Implants
Jeffrey H. Lee, M.D., Leonard B. Kaban, M.D., D.M.D., and Michael J. Yaremchuk, M.D.
SUPPLEMENTAL DIGITAL CONTENT IS AVAILABLE IN THE TEXT.

769 Discussion: Refining Post–Orthognathic Surgery Facial Contour with Computer-Designed/Computer-Manufactured Alloplastic Implants
Dario Bertossi, M.D.

759 Salvaging the Unavoidable: A Review of Complications in Pediatric Tissue Expansion
Arun K. Gosain, M.D., Sergey Y. Turin, M.D., Harvey Chim, M.D., and John A. LoGiudice, M.D.
CODING PERSPECTIVE FOR THIS ARTICLE IS ON PAGE 767.

771 Outcomes following Autologous Fat Grafting for Oncologic Head and Neck Reconstruction
Riaz J. Karmali, M.D., Summer E. Hanson, M.D., Ph.D., Alexander T. Nguyen, M.D., Roman J. Skoracki, M.D., and Matthew M. Hanasono, M.D.

342e Fractional Carbon Dioxide Laser in Patients with Skin Phototypes III to VI and Facial Burn Sequelae: 1-Year Follow-Up
Alessandra Grassi Salles, M.D., Ph.D., Bruno Ferreira Luitgard, M.D., Luciana Borsoi Moraes, M.D., Adelina Fátima do Nascimento Renzig, M.D., Ph.D., Lígia Araújo Zampieri, M.D., and Rolf Gemperli, M.D., Ph.D.

782 Anatomical Characterization and Three-Dimensional Modeling of the Muscles at the Corner of the Mouth: An Iodine Staining Technique Based on Micro–Computed Tomography
Min Sun, M.D., Guo C. Chen, M.D., Yong Q. Wang, M.D., Tao Song, M.D., Hai D. Li, M.D., Di Wu, M.D., and Ning B. Yin, M.D.
SUPPLEMENTAL DIGITAL CONTENT IS AVAILABLE IN THE TEXT.

786 Bridging the Gap: A 20-Year Experience with Vein Grafts for Free Flap Reconstruction. The Odds for Success
Amir Inbal, M.D., Amanda K. Silva, M.D., Laura S. Humphries, M.D., Chad M. Teven, M.D., and Lawrence J. Gottlieb, M.D.
351e Pure Skin Perforator Flaps: The Anatomical Vascularity of the Superthin Flap
Mitsunaga Narushima, M.D., Ph.D., Tatsuya Yamasoba, M.D., Takaya Iida, M.D., Yu Matsamoto, M.D., Takumi Yamamoto, M.D., Hidehiko Yoshimatsu, M.D., Shun Timothy, M.D., Georgios Pafitanis, M.D., Shuji Yamashita, M.D., and Isao Koshima, M.D.
SUPPLEMENTAL DIGITAL CONTENT IS AVAILABLE IN THE TEXT.

361e Discussion: Pure Skin Perforator Flaps: The Anatomical Vascularity of the Superthin Flap
Joon Pio Hong, M.D., Ph.D., M.M.M., and Hyunsuk Peter Suh, M.D., Ph.D.

Lower Extremity

Original Articles

796 Lymph Flow Restoration after Tissue Replantation and Transfer: Importance of Lymph Axiality and Possibility of Lymph Flow Reconstruction without Lymph Node Transfer or Lymphatic Anastomosis
Takumi Yamamoto, M.D., Ph.D., Takaya Iida, M.D., Ph.D., Hidehiko Yoshimatsu, M.D., Yuma Fuse, M.D., Akitatsu Hayashi, M.D., and Nana Yamamoto, M.D.
THIS AND RELATED “CLASSIC” ARTICLES APPEAR ON PRSJOURNAL.COM FOR JOURNAL CLUB DISCUSSIONS.

363e Donor-Site Morbidity of Vascularized Bone Flaps from the Distal Femur: A Systematic Review
Aviram M. Giladi, M.D., M.S., Jacob R. Rinkinen, M.D., James P. Higgins, M.D., and Matthew L. Iorio, M.D.

Ideas and Innovations

806 Ankle Arthrodesis with Free Vascularized Fibula Autograft Using Saphenous Vein Grafts: A Case Series
Paulo P. Piccolo, M.D., Oded Ben-Amotz, M.D., Blair Ashley, M.D., Keith L. Wapner, M.D., and L. Scott Levin, M.D.

CME

373e Current Basal and Squamous Cell Skin Cancer Management
Bernardino M. Mendez, M.D., and James F. Thornton, M.D.
RELATED VIDEO CONTENT IS AVAILABLE ONLINE.

PLASTIC SURGERY FOCUS

Special Topics

813 Ethics in Plastic Surgery: Applying the Four Common Principles to Practice
Lucas Gallo, M.D., Charmaine Baxter, M.D., Jessica Murphy, M.Sc., Lisa Schwartz, Ph.D., and Achilleas Thoma, M.D., M.Sc.

388e The Ethical and Professional Use of Social Media in Surgery: A Systematic Review of the Literature
Katelyn G. Bennett, M.D., Nicholas L. Berlin, M.D., Mark P. MacEachern, M.L.I.S., Steven R. Buchman, M.D., B. Aviva Preminger, M.D., M.P.H., and Christian J. Vercler, M.D., M.A.
THIS AND RELATED “CLASSIC” ARTICLES APPEAR ON PRSJOURNAL.COM FOR JOURNAL CLUB DISCUSSIONS.

399e Discussion: The Ethical and Professional Use of Social Media in Surgery: A Systematic Review of the Literature
Heather J. Furnas, M.D.
Discussion: The Ethical and Professional Use of Social Media in Surgery: A Systematic Review of the Literature
Ashkan Ghavami, M.D.

Factors Influencing Patient Satisfaction in Plastic Surgery: A Nationwide Analysis
Kevin Chen, M.D., Susan Congiusta, D.N.P., R.N., Ira S. Nash, M.D.,
Gene F. Copa, M.D., Mark L. Smith, M.D., Armen K. Kasabian, M.D.,
Charles Thorne, M.D., and Neil Tanna, M.D., M.B.A.
SUPPLEMENTAL DIGITAL CONTENT IS AVAILABLE IN THE TEXT.
VIDEO DISCUSSION BY ERIKA SEARS, M.D., IS AVAILABLE ONLINE FOR THIS ARTICLE.

Living Donation of Vascularized Composite Allografts
Bohdan Pomahac, M.D., Muayyad Alhefzi, M.D., Ericka M. Bueno, Ph.D.,
Sue V. McDermid, M.D., and L. Scott Levin, M.D.

A Novel Innovation for Surgical Flap Markings Using Projected Stencils
Lohrasb R. Sayadi, M.D., Mustafa Chopan, M.D., Kevin Maguire, M.D.,
Derek A. Banyard, M.D., M.B.A., Zachary Ehret, B.S., Gregory R. D. Evans, M.D.,
and Alan D. Widgeco, M.D., M.B.B.Ch., M.Med., M.H.S.
SUPPLEMENTAL DIGITAL CONTENT IS AVAILABLE IN THE TEXT.

Reviewed by Jonathan Cheng, M.D.

Reviewed by Anureet K. Bajaj, M.D.

Trends in Physician Payments for Breast Reconstruction: Correction
Liposuction Aspirate Fluid Adipose-Derived Stem Cell Injection and Secondary Healing in Fingertip Injury: A Pilot Study: Correction
Treatment of Facial Hypopigmented Scars by the Laser Hole Technique Using a Nonfractional Carbon Dioxide Laser in Asians: Correction

Gary C. Burget, M.D., 1941 to 2017
Mark B. Constantian, M.D.

Macrotextured Breast Implants with Defined Steps to Minimize Bacterial Contamination around the Device: Experience in 42,000 Implants
Michail Sorotos, M.D., Benedetto Longo, M.D., Ph.D., Vittoria Amorosi, M.D., and Fabio Santarelli di Pompeio, M.D., Ph.D.

Reply: Macrotextured Breast Implants with Defined Steps to Minimize Bacterial Contamination around the Device: Experience in 42,000 Implants
William P. Adams, Jr., M.D.
Acellular Dermal Matrix in Immediate Expander/Implant Breast Reconstruction: A Multicenter Assessment of Risks and Benefits
Shangshan Li, M.D., and Jie Luan, M.D.

The Baltodano Breast Reduction Score: A Nationwide, Multi-Institutional, Validated Approach to Reducing Surgical-Site Morbidity
Edward A. Luce, M.D.

The Economics of Prepectoral Breast Reconstruction
Leonardo Cattelani, M.D., and Susanna Polotto, M.D.

Smaller Diameter Anastomotic Coupling Devices Have Higher Rates of Venous Thrombosis in Microvascular Free Tissue Transfer
Alberto Ruiz-Cases, M.D., Enrique Salmerón-González, M.D., Alberto Pérez-García, M.D., Juan R. Esteban-Vico, M.D., and Elena García-Vilarrión, M.D.

SUPPLEMENTAL DIGITAL CONTENT IS AVAILABLE IN THE TEXT.

Reply: Smaller Diameter Anastomotic Coupling Devices Have Higher Rates of Venous Thrombosis in Microvascular Free Tissue Transfer
Summer E. Hanson, M.D., Ph.D., and Patrick B. Garvey, M.D.

Antithrombotic Therapies in Digit Replantation with Papaverine Administration: A Prospective, Observational Study
Federico Lo Torto, M.D., Juste Kaculyte, M.D., Pedro Ciudad, M.D., Emanuele Cigna, M.D., and Diego Ribaffo, M.D.

Reply: Antithrombotic Therapies in Digit Replantation with Papaverine Administration: A Prospective, Observational Study
Bingbo Bao, M.D., Hongyi Zhu, M.D., and Xianyou Zheng, M.D.

Objective Assessment of the Unilateral Cleft Lip Nasal Deformity Using Three-Dimensional Stereophotogrammetry: Severity and Outcome
Valentina Pinto, M.D., Ottavio Piccin, M.D., M.Sc., and Paolo G. Morselli, M.D.

Reply: Objective Assessment of the Unilateral Cleft Lip Nasal Deformity Using Three-Dimensional Stereophotogrammetry: Severity and Outcome
Raymond W. Tse, M.D., Babette S. Siebold, Ph.D., and Ezgi Mercan, Ph.D.

Reconstruction of the Heel, Middle Foot Sole, and Plantar Forefoot with the Medial Plantar Artery Perforator Flap: Clinical Experience with 28 Cases
Mouchammed Agko, M.D., Pedro Ciudad, M.D., Ph.D., and Hung-Chi Chen, M.D., Ph.D.

Reply: Reconstruction of the Heel, Middle Foot Sole, and Plantar Forefoot with the Medial Plantar Artery Perforator Flap: Clinical Experience with 28 Cases
Alberto Franchi, M.D., and Mario F. Scaglioni, M.D.

The Role of Tranexamic Acid in Plastic Surgery: Review and Technical Considerations
L. Mike Nayak, M.D., and Gary Linkov, M.D.

Reply: The Role of Tranexamic Acid in Plastic Surgery: Review and Technical Considerations
Min-Jeong Cho, M.D., and Rod J. Rohrich, M.D.
**VIEWPOINTS**

425e Treatment of Cervicofacial Lymphaticovenous Malformation with Vascularized Lymph Node Transfer

427e Cultural Considerations Regarding Glansplasty
Ian Nolan, Christopher S. Grace, M.D., Benjamin B. Massenburg, M.D., Jonathan P. Massie, M.D., Richard A. Santucci, M.D., and Shane D. Morrison, M.D., M.S.

428e Caution with Use: Smartphone-Related Distracted Behaviors and Implications for Pedestrian Trauma
Cyril S. Gary, B.A., Chriswalantis Lakkian, M.D., Michael V. DeFazio, M.D., Derek L. Masden, M.D., and David H. Song, M.D., M.B.A.

429e Rethinking Evidence-Based Medicine in Plastic and Reconstructive Surgery
Nidal F. Al Deek, M.Sc., M.D.

429e Longitudinal Data Highlighting the Inability to Maintain Medical Student Interest in Plastic Surgery
Brandon T. Smith, M.S., Francesco M. Egro, M.B.Ch.B., M.Sc., and Vu T. Nguyen, M.D.

**ANNOUNCEMENTS**

431e ASPS/PSF Sponsored Symposia and Workshops

431e International Meetings and Symposia