Abnormal Placentation:
Placenta Previa, Vasa Previa, and
Placenta Accreta
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Question 1:

How do increasing maternal age and assisted reproductive technology (ART) relate to the
pathophysiology of placenta accreta and placenta previa?

Response from Dr. Silver:

The pathophysiology responsible for the relationship between advanced maternal age, ART, and placenta
previa and placenta accreta is unknown. Both increase the chances of implantation low in the uterine
cavity. It is unknown if other pathways also contribute to the risk of previa and accreta.

Question 2:

Do you think any of the risk factors for previa (ie, parity, smoking, cocaine use) impair trophotropism
rather than affect the site of implantation?

Response from Dr. Silver:

It is uncertain how these risk factors increase the chances of placenta previa. Site of implantation appears
to be affected by parity. Smoking and cocaine use adversely affect the uteroplacental circulation. This may
lead to increased placental mass as a compensatory mechanism, in turn, increasing the odds of a previa.
Placental hypoxia also may have primary effects on placental architecture, increasing the risk of previa. It is
unknown whether smoking and cocaine use adversely influence trophotropism.
Question 3:

The optimal time for delivery of placenta previa is 36–37 weeks of gestation, yet in a study by Ananth et al (see Am J Obstet Gynecol 2003;188:275–81), 55.6% delivered after 37 weeks of gestation. Are there legitimate clinical reasons for continuing a placenta previa pregnancy beyond 37 weeks of gestation?

Response from Dr. Silver:

Again, there are no high-quality data to guide management regarding the optimal timing of delivery for placenta previa. Thirty-seven weeks of gestation is the optimal time for delivery for the “average” patient based on modeling and simulated analyses. The risks of prematurity must be weighed against the risk of maternal hemorrhage and urgent or emergent delivery. It may be reasonable to consider delaying delivery to 38 or 39 weeks of gestation in a multiparous patient who required induction of labor in all of her prior pregnancies, has no contractions or bleeding, and who has a normal cervical length. However, I never go past 37 weeks of gestation in my own practice, and if someone chooses to, they should be cognizant of the fact that it is not consistent with “non-evidence”–based recommendations.

Question 4:

Although the benefits may be unproven, do you still advise pelvic rest for your patients with previa?

Response from Dr. Silver:

Yes. It is likely of no benefit, but it seems prudent.

Question 5:

If vasa previa resolves, how far would the vessel need to be from the os before you would consider vaginal delivery?

Response from Dr. Silver:

Of course there are no data regarding this issue. A typical approach is to allow a vaginal delivery if the vasa previa is over 2 cm from the endocervical os. However, I would be very cautious about the potential for a branch of a fetal vessel being poorly visualized, yet within 2 cm of the os. It is rare for a vasa previa to “resolve” and in cases wherein the diagnosis appears certain, it may be prudent to treat that patient as though they still have a vasa previa unless there is perfect visualization of the relationship between fetal vessels and the os.

Question 6:

What causes vascular lacunae?

Response from Dr. Silver:

The cause of vascular lacunae is unknown, but is thought to be due to vascular growth and angiogenic factors elaborated by the accreta.
At the University of Utah, we routinely place ureteral stents prior to cesarean hysterectomy for accreta. In retrospective analyses, placement of stents decreased the risk of ureteral injury (see BJOG 2009;116:648–54). Although efficacy remains uncertain, placing stents does not add considerable operating time or morbidity, and we perceive a benefit. In contrast, we do not routinely place balloon catheters preoperatively. As with ureteral stents, data from randomized controlled trials are lacking. However, balloon catheter placement has been linked to uncommon but serious morbidity and it adds considerable time (see Int J Obstet Anesth 2011;20:70–3). In addition, we have not perceived a benefit. This may be due to substantial collateral circulation. Most available retrospective data do not support the routine use of balloon catheters (see Clin Rad 2012;67:515–20), although some centers perceive them to be of great benefit. We sometimes use balloon catheters postoperatively as adjunctive therapy in cases of slow and diffuse pelvic bleeding.

Question 8:
Do you give postoperative antibiotics when using conservative management for placenta accreta?

Response from Dr. Silver:
We do not routinely use postoperative antibiotics for the conservative management of accreta. There are no quality data to confirm or refute efficacy.