TACTICS FOR REDUCING THE RATE OF SURGICAL SITE INFECTION FOLLOWING CESAREAN DELIVERY
ROBERT L. BARBIERI, MD
(EDITORIAL; APRIL 2018)

Incision site for cesarean delivery is important in infection prevention

Dr. Barbieri's editorial very nicely explained strategies to reduce the risk of post–cesarean delivery surgical site infection (SSI). However, what was not mentioned, in my opinion, is the most important preventive strategy. Selecting the site for the initial skin incision plays a great role in whether or not the patient will develop an infection postoperatively.

Pfannenstiel incisions are popular because of their obvious cosmetic benefit. In nonemergent cesarean deliveries, most ObGyns try to use this incision. However, exactly where the incision is placed plays a large role in the genesis of a postoperative wound infection. The worst place for such incisions is in the crease above the pubis and below the panniculus. Invariably, this area remains moist and macerated, especially in obese patients, thus providing a fertile breeding ground for bacteria. This problem can be avoided by incising the skin approximately 2 cm cranial to and parallel to the aforementioned crease, provided that the panniculus is not too large. The point is that the incision should be placed in an area where it has a chance to stay dry.

Sometimes patients who are hugely obese require great creativity in the placement of their transverse skin incision. I recall one patient, pregnant with triplets, whose abdomen was so large that her umbilicus was over the region of the lower uterine segment when she was supine on the operating room table. Some would have lifted up her immense panniculus and placed the incision in the usual crease site. This would be problematic for obtaining adequate exposure to deliver the babies, and the risk of developing an incisional infection would be very high. Therefore, a transverse incision was made just below her umbilicus. The panniculus was a nonissue regarding gaining adequate exposure and, when closed, the incision remained completely dry and uninfected. The patient did extremely well postoperatively and had no infectious sequelae.

APRIL 2018

David L. Zisow, MD
Baltimore, Maryland

Extraperitoneal approach should be considered

I enjoyed the editorial on reducing surgical site infection, especially the references to the historical Halsted principles of surgery. "He was the first in this country to promulgate the philosophy of 'safe' surgery."[1] Regarding surgical principles of cesarean delivery, the pioneering German obstetricians in the 1930s were keenly aware that avoiding the peritoneal cavity was instrumental in reducing morbidity and mortality. They championed the safety of the extraperitoneal approach as the fundamental principle of cesarean delivery for maternal safety.[2]

I learned to embrace the principles of Kaboth while learning the technique in 1968–1972. Thus, for more than 30 years, I used the extraperitoneal approach to access the lower uterine segment, avoiding entrance into the abdominal cavity. My patients seemed to benefit. As the surgeon, I also benefited: with short operative delivery times, less postoperative pain and minor morbidities, fewer phone calls from nursing staff, and less difficulty for my patients. I had not contaminated the peritoneal cavity and avoided all those inherent problems. The decision to open the peritoneal cavity has not been subjected to the rigors of critical analysis.[3] I think that Kaboth's principles remain worthy of consideration even today.

Contemporary experiences in large populations such as in India and China that use the extraperitoneal cesarean approach seem to implicitly support Kaboth's principles. However, in the milieu of evidence-based medicine, extraperitoneal cesarean delivery has not been adequately studied.[4] Just maybe the extraperitoneal approach should be considered and understood as a primary surgical technique for cesarean deliveries; just maybe it deserves a historical asterisk alongside the Halsted dicta.

Hedric Hanson, MD
Anchorage, Alaska

References

1. Cameron JL. William Steward Halsted: our surgical heritage. Ann Surg. 1997;225(5):445–458.
2. Kaboth G. Die Technik des extraperitonealen Entibindungschnittes. Zentralblatt fur Gynakologie.1934;58(6):310–311.
3. Berghella V, Baxter JK Chauhan SP. Evidence-based surgery for cesarean section. Am J Obstet Gynecol. 2005;193(5):1607–1617.
4. Hofmeyr GJ, Mathai M, Shah AN, Novikova N. Techniques for caesarean section. Cochrane Database Syst Rev. 2008; CD004662.

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Dr. Barbieri responds

I thank Drs. Zisow and Hanson for their great recommendations and clinical pearls. I agree with Dr. Zisow that I should have mentioned the importance of optimal placement of the transverse skin incision. Incision in a skin crease that is perpetually moist increases the risk for a postoperative complication. When the abdomen is prepped for surgery, the skin crease above the pubis appears to be very inviting for placement of the skin incision. Dr. Hanson highlights the important option of an extraperitoneal approach to cesarean delivery. I have not thought about using this approach since the mid-1980s. Dr. Hanson's recommendation that a randomized trial be performed comparing the SSI rate and other outcomes for extraperitoneal and intraperitoneal cesarean delivery is a great idea.

ARE YOU AWARE OF A CASE EXAMPLE OF HOW NOT PERFORMING A PHYSICAL EXAMINATION ADVERSELY IMPACTED PATIENT CARE?

(INSTANT POLL; MARCH 2018)

Rash goes undetected

As a urogynecologist, in the past 5 years I have had 2 urgent emergency department referrals from 2 towns. The patients had excruciating flank pain and had a negative computed tomography scan and normal pelvic and renal examinations, but no physical exam. They were subsequently found to have shingles!

Bunan Alnaif, MD
Chesapeake, Virginia

Physical exam revealed suspicious mass

Two years ago a regular gynecologic patient of mine came in 2 months early for her Pap test because she was concerned about a pressure in her genital area. I had delivered her 3 children. She was now in her mid-40s. She had visited her usual physician about the problem; she was not physically examined but was advised to see a gastrointestinal specialist, since the pressure caused constipation with discomfort. She then consulted a gastroenterologist, who performed a colonoscopy that was reported as normal. The patient related that she had no pelvic or rectal examination at that time, although it is possible that one could have been done while she was under anesthesia.

She arrived at my office 3 weeks later, and while doing the pelvic and rectal exam, I noted she had a 3- to 4-cm perirectal mass, which I thought was a Bartholin's tumor. I referred her to a gynecologic oncologist who happened to write a paper on this subject. My diagnosis was wrong—she had a rectal carcinoma, which fortunately was Stage 1.

The patient subsequently has done well. The delay in diagnosis could have been averted if a simple rectal examination had been performed by the first doctor.

James Moran, MD
Santa Monica, California

Case of an almost missed diagnosis

I have many examples of how not performing a physical examination can cause problems, but here is a recent one. This involved a 70-year-old woman who had been seeing only her primary care physician for the past 30 years, with no pelvic examinations done. She had symptoms of vaginal discharge and itch for which she was given multiple courses of antifungals and topical steroids. Finally, she was referred to me. Examination revealed findings of extensive raised, erythematous, hyperkeratotic, macerated lesions throughout the vulva. A punch biopsy revealed severe vulvar dysplasia with areas suspicious for squamous cell carcinoma. I referred the patient to a gynecologic oncologist, who performed a simple vulvectomy. There were extensive foci of vulvar intraepithelial neoplasia 3.

Susan Richman, MD
New Haven, Connecticut

Lack of physical exam leads to tortuous dx course

Here is a story of a patient who must have gone without having a pelvic examination or any evaluation for years. This 83-year-old woman had a previous transvaginal hysterectomy at age 49 for fibroids and bleeding. She is quite healthy and active for her age. She had problems with recurrent urinary tract infection for several years before being referred to a gynecologist. She had emergency room visits and multiple urgent care visits. She saw her primary care physician 3 times in 4 weeks for bladder pain and a sensation of incomplete bladder emptying. She reported that when she got up in the morning, it felt like her urine slowly leaked out for several hours. She was referred to a urologist, who saw her twice and did pelvic ultrasonography and post-void residual urine testing—without a pelvic exam.

After 2 months of regular visits, an examination by her primary care physician revealed a complete fusion of the labia. Six months after her initial urology visit, the patient had an examination with a plan for cystoscopy, and the urologist ended up doing a "dilation of labial fusion" in the office. The patient's urinary symptoms were improved slightly, and she had visits to the emergency room or urgent care once monthly for dysuria after dilation of the labia.

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COMMENT & CONTROVERSY

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At that point she was referred to me. We tried topical estrogen for several months with minimal improvement in symptoms, and I performed a surgical separation of labial fusion in the operating room under monitored anesthesia care. After surgery the patient said that she felt like "I got my life back," and she never knew how happy she could be to pee in the morning.

Theresa Gipps, MD
Walnut Creek, California

Agrees with importance of clinical exam

I fully agree that clinical examination skill is a dying art. But the American College of Obstetricians and Gynecologists has issued guidelines stating that pelvic examination is not required, especially in asymptomatic women. Another area of concern is hair removal procedures like waxing and laser treatments in the pubic area, and whether these do harm in any way or increase the likelihood of skin problems.

Manju Hotchandani, MD
New Delhi, India

Dr. Barbieri responds

I thank Drs. Alnaif, Moran, Richman, Gipps, and Hotchandani for sharing their comments and important clinical vignettes concerning the primacy of the physical examination with our readers. In clinical practice there are many competing demands on the time of clinicians, but we should strive to preserve time for a good physical examination. If not us, who is going to perform a competent physical examination?

HIDRADENITIS SUPPURATIVA: AN UNDERDIAGNOSED SKIN PROBLEM OF WOMEN
ROBERT L. BARBIERI, MD
(EDITORIAL; MARCH 2018)

Treatment includes surgery

Thank you for the great article about hidradenitis suppurativa. It was very informative as usual, but a little shortsighted. As ObGyns we tend not to focus so much on these dermatologic conditions. However, I think something very important is missing in the article. I do not see it mentioned that hidradenitis suppurativa is a type of acne, also called acne inversa. As such, it should be treated like acne, with special attention to diet with zero dairy products as a prevention measure. Also, metformin is very important, as noted in the article. Retinoids are also needed, maybe for years.

According to experts, the primary approach to this condition is surgical, with punch biopsies and unroofing of the lesions, with medical therapies as prevention strategies. Fortunately, special task forces are now tackling this condition, especially in Europe. I strongly recommend the book, *Acne: Causes and Practical Management*, by F. William Danby.

Ivan Valencia, MD
Quito, Ecuador

Dr. Barbieri responds

Dr. Valencia provides an important perspective on the surgical treatment of hidradenitis suppurativa (HS). I agree that surgery is an important treatment for Stage III HS, but nonsurgical approaches are preferred and often effective for Stage I HS, a stage most likely to be treated by a gynecologist.

IS MANNITOL A GOOD ALTERNATIVE AGENT FOR EVALUATING URETERAL PATENCY AFTER GYNECOLOGIC SURGERY?
CHERYL B. IGLESIA, MD
(EXAMINING THE EVIDENCE; JANUARY 2018)

Tip for when using phenazophyridine

I enjoyed the review by Dr. Iglesia on agents that are used to demonstrate ureteral patency. I like phenazopyridine because it is cheap and readily available. It works great if you remember one thing: *drain the bladder first so the orange color stands out in the colorless saline irrigant.* Otherwise, the orange-dyed urine obscures the orange ureteral jets.

John H. Sand, MD
Ellensburg, Washington

8 COMMON QUESTIONS ABOUT NEWBORN CIRCUMCISION
HENRY M. LERNER, MD (JANUARY 2018)

FP can perform the circumcision

I enjoyed Dr. Lerner's brief review but was puzzled by the question of who should perform the circumcision. The most obvious and one of the most frequent answers was ignored. It should be done by the family physician who delivered the baby, is caring for him in the nursery, and will be caring for him another couple of decades.

John R. Carroll, MD
Corpus Christi, Texas

Tell us what you think!

Share your thoughts on an article or on any topic relevant to ObGyns and women's health practitioners. We will consider publishing your letter in a future issue.

Send your letter to: rbarbieri@mdedge.com

Please include the city and state in which you practice.