COMMENT & CONTROVERSY

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"Averting adhesions: Surgical techniques and tools," by Togas Tulandi, MD, MHCM, and Mohammed Al-Sunaidi, MD (May)

Peritoneal closure at C-section reduces the risk of adhesions

Even as Drs. Tulandi and Al-Sunaidi focus on ways to prevent adhesions, they assert that peritoneal closure is unnecessary. I disagree. The peritoneum is there for a reason: to separate the abdominal contents from the muscles and fascia. There are studies reporting more adhesions with closure, and studies reporting the opposite. Yet I have, on numerous occasions, entered directly into the amniotic sac while trying to separate the rectus muscles during repeat C-section. How did the uterine muscle become incorporated into the rectus muscles, with no plane of separation?

I had a patient who developed suprapubic pain and dyspareunia after her first C-section 4 years ago. At her second cesarean delivery 2 years later, her obstetrician informed her that there were terrible adhesions between the uterus and anterior abdominal wall. After the second C-section, the patient's suprapubic pain and dyspareunia worsened, and she suffered for 2 years before coming to me. When I performed diagnostic laparoscopy, I found the uterus suspended from the anterior abdominal wall by a broad, thick, fibromuscular band that was inseparable from the rectus muscles. In another repeat C-section, I found colon adherent to the rectus muscles by a thick band of dense tissue.

Adhesions like these put the patient at significant risk for operative complications. Am I the only ObGyn seeing such complications? Are others just ignoring the problem? Are we really doing the patient a favor when we save operative time by leaving the peritoneum open? There are claims that patients experience less postoperative pain without peritoneal closure, but I have not noticed this effect among my patients.

I prefer to perform repeat C-section when a woman had her peritoneum closed the first time around. There are usually no adhesions in these cases, or only thin, filmy adhesions of no consequence.

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"Are we really doing the patient a favor when we save operative time by leaving the peritoneum open?"

Dr. Tulandi responds:

Question of closure remains unsettled

Dr. Al-Sunaidi and I appreciate Dr. Liem's interest in our article and thank him for sharing his observations. Dr. Liem is correct that studies evaluating adhesion formation after closure of the peritoneum (versus nonclosure) have yielded mixed results. For example, in a non-randomized study, Lyell and colleagues[1] found closure of parietal peritoneum at cesarean delivery to be associated with less adhesion formation than nonclosure. Although these investigators excluded cases involving permanent sutures, they did not describe the type of sutures used to close the peritoneum. It is known that reactive suture materials such as catgut predispose to adhesions.

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On the other hand, studies of closure of both parietal and visceral peritoneum at cesarean delivery suggest that peritoneal nonclosure does not promote, and might even decrease, adhesion formation.[2–4] A review of nine randomized trials found less postoperative fever and a reduced hospital stay when visceral peritoneum or both visceral and parietal peritoneum were left unsutured.[5] Investigators concluded that there is no evidence to justify the time and expense of peritoneal closure. Peritoneal closure is also associated with more postoperative pain.

A large randomized trial evaluating adhesion formation after cesarean section with second-look laparoscopy would help us answer the question of whether one should suture the peritoneum at cesarean section.

References

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