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Correspondence

Asymptomatic uterine rupture detected at cesarean section: Some different viewpoints

Dear Editor,

I commend Soyama et al. [1] for clearly demonstrating "asymptomatic" uterine rupture. Classical cesarean section (CS), followed by uterine artery embolization (UAE), was initially performed. A repeat CS at the patient's next pregnancy/delivery revealed "asymptomatic" uterine rupture around the fundus. The authors discussed the association between UAE and this rupture; this viewpoint is important. I wish to discuss this case from some different viewpoints, focusing to this rupture being asymptomatic.

Firstly, the presence/absence of uterine contractions may affect rupture extension. Uterine contractions may enlarge the rupture, from which membranes and a fetus (a part or the whole) protrude into the abdominal cavity and bleeding occurs, a catastrophe both for the mother and fetus. In this patient, CS was performed electively, suggesting that uterine contractions were absent. This may partly explain why the rupture remained small, and, thus, "asymptomatic".

Secondly, was the rupture covered by the intestine/mesentery/omentum? This is worthy of describing. Uterine rupture may remain "asymptomatic" when covered by them. Our team was the first to describe this condition [2], proposing the concept of "masked uterine rupture" [3]. In our case, the uterine rupture was tightly covered by the small intestine/mesentery, which "concealed" the rupture [2]. Another report described this condition [4]. Thus, we wonder whether the same happened in Soyama et al.'s case.

Thirdly, what would have happened if the rupture had remained undetected? This is also worthy of describing. In Soyama et al.'s case, the rupture occurred at the uterine "top". Thus, only the cephalad end, and not the entire length, of the previous CS scar was ruptured. This "localized" rupture may sometimes remain "unchecked" during CS. Lower segment incision was performed this time. Without intentionally checking the entire previous scar including the fundus, this rupture may have remained undetected. If the site had been covered by the intestine/mesentery/omentum and remained unseparated, its detection would have been less likely. This is especially true when CS is performed with a small skin incision and the uterus is not exteriorized. I usually check and clean the Douglas pouch before abdomen closure, during which this rupture may be detected; however, this is sometimes omitted, especially with a small amount of bleeding or marked adhesion around the uterus. The abdomen may have been closed, with the rupture remaining undetected. Then, how about the patient's course, both in the long and short term? As was previously suggested [2,3,5], some patients may remain "asymptomatic", depending on the rupture site, size, condition of the vessels around it, and, finally, the rupture's spontaneous closure (+ or −).

Data are insufficient to characterize pregnancies after UAE for postpartum hemorrhage, which Soyama et al. carefully reviewed. This was very useful. I wish for Soyama et al. and the readers to recognize another point that this patient may tell us. Although this is not based on evidence, some uterine rupture may remain undetected not only during pregnancy/delivery but also lifelong. Hopefully, a future study will confirm/characterize such rupture.

Abbreviations used: CS, cesarean section; UAE, uterine artery embolization.

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