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Appendectomy for asymptomatic appendicitis during caesarean section - an interesting case report

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Summary

Background: The authors present an interesting case report of an appendectomy during caesarean section in an asymptomatic pregnant woman, which highlights the need of peritoneal cavity check during every caesarean section. *Materials and Methods:* A 32-year-old para 0 woman at 34 weeks of gestation attended to the present clinic because of a feeling of reduced fetal movements in the last 24 hours. She underwent a non-stress test (NST), that was non-reassuring and no contractions were recorded. The woman underwent a caesarean section, which revealed a large phlegmonic appendix. Appendectomy was decided after the closure of the uterine cavity. *Results:* The woman was treated with appendectomy. Histology came back as an appendicitis three days later. *Conclusions:* Acute appendicitis during pregnancy may be associated with serious maternal and fetal complications. It is also associated with a high risk of premature delivery. In the absence of lower abdominal pain and inflammatory changes, the incidence of acute appendicitis is low, but exists. In every caesarean section at any week of gestation, we should check the peritoneal cavity and especially the appendix, as appendicitis is the most frequent non-obstetric surgical situation in pregnancy. Asymptomatic appendicitis should be considered as a cause in every pregnant woman who mentions preterm contractions or/and reduced fetal movements.

Key words: Pregnancy; Caesarean section; Asymptomatic appendicitis; Appendectomy.

Introduction

Acute appendicitis is the most common general surgical problem encountered during pregnancy [1]. The diagnosis is particularly challenging during pregnancy because of the relatively high prevalence of abdominal/gastrointestinal discomfort, anatomic changes related to the enlarged uterus, and the physiologic leukocytosis of pregnancy [2].

Case Report

A 32-year-old para 0 woman at 34 weeks and two days of gestation, attended the present clinic because of feeling reduced fetal movements the last 24 hours. She was a non-smoker and she did not consume any alcohol. Her gynecological history was free and she had no other health problems. Her pregnancy was uneventful up to that point, with normal ultrasound findings on the first, second, and third trimester studies. On admission she was offered an ultrasound investigation and non-stress test (NST). Ultrasound examination revealed an estimated fetal weight (EFW) of about 2,320 grams and the measurement of pulsatility index (PI) of umbilical artery (UMA) was normal. NST did not record any contractions but it was non-reassuring with a baseline fetal heart rate (FHR) of 105 bpm and decreased variability. Blood test revealed WBC: 11,460/mcL, NE: 72%, HCT: 34.2%, and PLT: 182,000/mcL. Treatment options were discussed, she underwent an emergency caesarean section and a 2,280-gram male infant with an Apgar score of 9 was born. After the closure of the uterine cavity, a checkpoint of peritoneal cavity revealed a large and rubber appendix of about five cm long. (Figures 1-2). A general surgeon's advice was asked and he suggested appendectomy due to acute appendicitis and high risk of rupture in the next days. Histological examination the next day came back as an acute appendicitis. The woman remained in the hospital for three days. Paracetamol was used for analgesia and metronidazole and cefoxitin postoperatively. She was discharged from hospital on the fourth day.

Discussion

Pregnant women are less likely to have a classic presentation of appendicitis than nonpregnant women, especially in late pregnancy [3, 4]. The most common symptom, is, right lower quadrant pain, close to McBurney's point in the majority of pregnant women, regardless of the stage of pregnancy [5]. In the present case there were no signs of acute appendicitis. The woman mentioned no abdominal pain, there was no leucocytosis, and no fever or anorexia.The only symptom, was decreased fetal movements. However, the examination revealed a non-reassuring NST and she underwent caesarean section, where the appendicitis was revealed as an accidental finding and led to appendectomy. It is possible that the reduced fetal movements, was a complication of the appendicitis and was the only sign for a diagnosis, or it was too early in order to have symptoms. It is very important to check the peritoneal cavity and other abdominal organs during a caesarean section. In the present case, the

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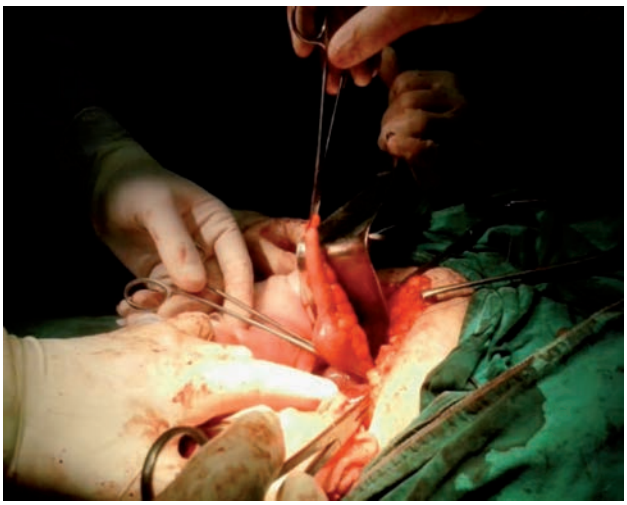

Figure 1. — Appendectomy during caesarean section.

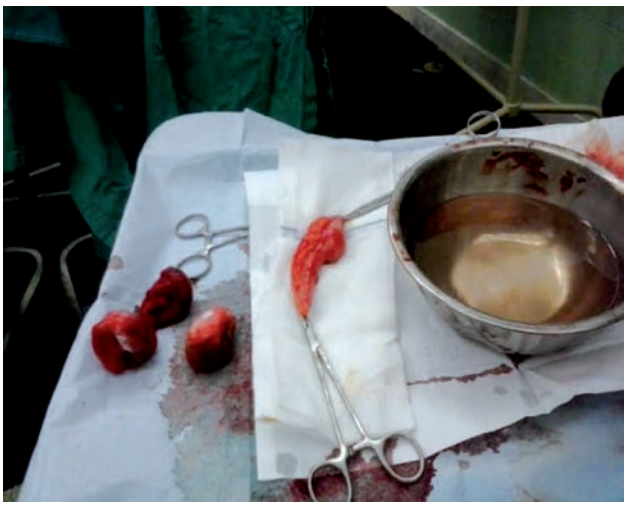

Figure 2. — Inflamed appendicitis.

risk of rupture of appendix the next days after delivery would have been very high, if appendicitis was misdiagnosed intraoperatively and that could have cost another surgery a few days after delivery.

Conclusion

Too many situations can lead to pregnancy complications in any gestational age. Appendicitis does not occur often, but is one of them. A high index of suspicious is necessary, when no other pathological findings can be seen. Checking the peritoneal cavity during a caesarean section, should be performed by every obstetrician.

References

[1] Andersen B., Nielsen T.F.: "Appendicitis in pregnancy: diagnosis, management and complications". Acta Obstet. Gynecol. Scand., 1999, *78*, 758.

[2] Nikolaidis P., Hwang C.M., Miller F.H., Papanicolaou N.: "The non-visualized appendix: incidence of acute appendicitis when secondary inflammatory changes are absent". *AJR Am. J. Roentgenol.*, 2004, *183*, 889.

[3] Mourad J., Elliott J.P., Erickson L., Lisboa L.: "Appendicitis in pregnancy: new information that contradicts long-held clinical beliefs". *Am. J. Obstet. Gynecol.*, 2000, *182*, 1027.

[4] Tamir I.L., Bongard F.S., Klein S.R.: "Acute appendicitis in the pregnant patient". *Am. J. Surg.*, 1990, *160*, 571.

[5] Mourad J., Elliott J.P., Erickson L., Lisboa L.: "Appendicitis in pregnancy: new information that contradicts long-held clinical beliefs". *Am. J. Obstet. Gynecol.*, 2000, *182*, 1027.

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