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Olgu Sunumu / Case Report

Acute Perforated Appendicitis as a Cause of Fetal Tachycardia at Term Pregnancy

Term Gebelikte Fetal Taşikardi Nedeni Olarak Akut Perfore Apandisit

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ABSTRACT

During pregnancy, appendectomy is the most common non-obstetrical surgery. But diagnosis of appendicitis is difficult in term pregnancy due to low sensitivity of ultrasound and nonspecific symptoms that interferes with pregnancy itself. Due to the delay in diagnosis, perforation of appendicitis is high in pregnant patients which is associated with adverse maternal and fetal outcomes. In this report, we present a term pregnant patient who had appendicitis with ruptured phlegmon during labour.

Key words: Perforated appendicitis, term pregnancy, fetal tachycardia, labour

ÖZET

Gebelik boyunca, apendektomi obstetri dışı cerrahinin en sık nedenidir.Ama miyad gebeliklerde, gebeliğin kendi non-spesifik olmayan semptomları ile karışması ve ultrasonun düşük sensitivitesi nedeni ile tanı zordur. Tanıdaki gecikmeye bağlı olarak, maternal ve fetal sonuçları olumsuz etkileyen apandisit perforasyonu gebelikte yüksektir. Bu vakada, doğum eylemindeki miyad bir gebede rüptüre olmuş plastrone apandisit olgusunu sunuyoruz.

Anahtar kelimeler: Perfore apandisit, miyad gebelik, fetal taşikardi, doğum eylemi

INTRODUCTION

During pregnancy, appendectomy is the most common non-obstetrical surgery and accounts for 25% of nonobstetric operations[1,2]. Although the incidence of appendicitis is similar in pregnant and non-pregnant women, complications occur more frequently due to the delay in diagnosis of pregnant patients[3,4]. Due to the delay in the diagnosis of appendicitis in pregnancy, perforation is high which is associated with adverse maternal and fetal outcomes[3]. So, rapid diagnosis of appendicitis is very important during pregnancy.

In this report, we present a term pregnant patient who had appendicitis with ruptured phlegmon during labour.

CASE PRESENTATION

A 19 years old , gravida 1 para 0 ,woman at 37 weeks gestation referred to our hospital emergency department with abdominal and waist pain. In genital examination, she had 2 cm dilated and 70% effaced cervix. Also in her non-stress test examinations,there was baseline fetal

tachcarydia between 160-170 FHR /bpm. In laboratory results, hemoglobin was 14,2 gr/dl and leucocyte was 14590/L. Thyroid function tests and ALT,creatinin,glucose levels were all within normal range. She had no fever. In her obstetrics ultrasound, fetus was single in vertex presentation with a biparietal diameter: 90 mm(36 weeks) ,abdominal circumference: 350 mm(39 weeks) and femur length: 72 mm(37 weeks). She was admitted to delivery room with the diagnosis of fetal tachycardia. Three days ago, she also had applied to hospital with abdominal pain,but all laboratory and physical examination was normal.

In the delivery room, she was followed up spontaneously . In her follow up, amniotomy was performed when the cervix 4 cm dilated and %80 effaced to exclude meconium staining since fetal heart rate continued to vary between 160-170 FHR/bpm. But the amnion was clear.After 8 hours of admission to delivery room,when the cervix was 5 cm dilated with 80 % effacement ,fetal heart rate increased up to 180-190 FHR / bpm (Figure 1) and the abdominal pain of the patient became worse.So cesarean section was performed with the indication of fetal tachycardia.A liveborn ,3540 grams male neonate was delivered with Apgar scores of 7 and 9 .In exploration a 5x7 cm in diameter ruptured phlegmon of apendicitis was detected (Figure 2). A culture was obtained form the phlegmon. Appendectomy was performed and two pernous drains were placed one in Douglas pouch , other in the right paracolic gutter.Pernous drains were removed on the third postoperative day. Since the pus culture was E.feacalis , she continued gentamicin and clindamycin treatment for 7 days. The pathology report was consistent with acute appendicitis. She was discharged from hospital in the 6 th day of appendectomy and there was no problem in the postoperative period.

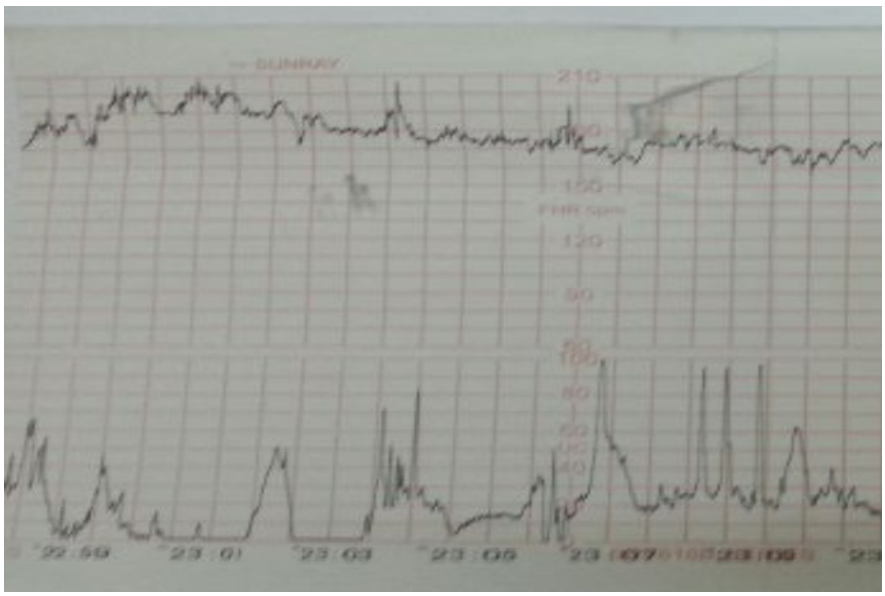

Figure 1. Non-stress test of the patient indicating fetal tachycardia

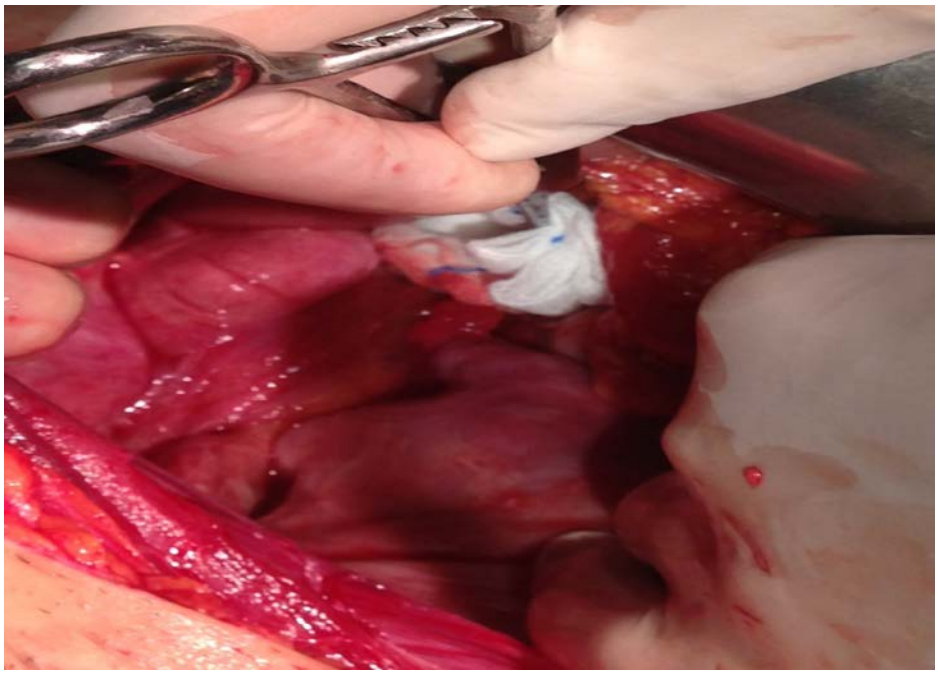

Figure 2. Perforated phlegmon of appendicitis (5x7 cm)

DISCUSSION

Among 94,789 females who underwent appendectomy , only 3.3% of cases were pregnant[5]. So there is limited experience with the management and diagnosis of appendicitis in pregnancy. Caudal displacement of appendix with increasing gestational age,nonspecific pain and symptoms such as nausea and vomitting also encountered during pregnancy might cause difficulties in diagnosis[6]. So there might be a delay in its diagnosis that results in higher perforation rates in pregnant women. In the literature, perforation rates vary between 21.7-40%[6,7]. A perforated appendix is one of the most important surgical cause of fetal loss during pregnancy[8] and might cause peritonitis, sepsis and preterm labor[9].

Ultrasound has been found important in the diagnosis of acute appendicitis in pregnancy especially during early gestation[4]. But as the gestational age increases,sensitivity of ultrasound decreases[5]. Recently ,it has been reported that magnetic resonance might be used in the diagnosis of appendicitis in pregnancy if ultrasound report is inconclusive[10].

When we consider our case, 3 days before admission to delivery room she applied to emergency room with abdominal pain.Probably acute appendicitis symptoms had begun before admission to hospital,but there had been a delay in diagnosis due to the difficulty of diagnosis in term pregnancy.

On the other hand, negative appendectomy rate has been found greater in pregnant women compared to non-pregnant patients[5]. But also adverse maternal and fetal outcomes were encountered in women with negative appendectomy which makes the accuracy of diagnosis crucial as well[5,11].

Medical management of ruptured appendicitis which includes bowel rest, intravenous antibiotics in pregnancy has been found as a reasonable treatment option[12]. Conversely, Abbasi et al. have

reported statistically significant adverse outcomes such as septic shock with conservative management in over 7000 pregnant patients with appendicitis[3]. So they concluded that conservative management should be avoided due to serious adverse outcomes in pregnancy.

In conclusion, accurate diagnosis of appendicitis is important in pregnancy since it is associated with adverse maternal and fetal outcomes. Especially in term pregnancies, appendectomy just after cesarean section seems favourable according to current data.

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