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Olgu Sunumu / Case Report

A Preterm Birth Caused by Postoperative Peritonitis and Peritoneal Abscess

Postoperatif Peritonit ve Peritoneal Absenin Neden Olduğu Erken Doğum

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ABSTRACT

Appendicitis is the most common condition leading to an intraabdominal operation for a non obstetric problem in pregnancy and diagnosis of appendicitis is complicated by the physiologic and anatomic changes that occur during pregnancy. Although a surgical procedure carries the risk of fetal loss or preterm delivery, delay in diagnosis also increases the risk of complications in both mother and fetus. The following case illustrates our experience and to analyze clinical characteristic and the pregnancy outcome of appendicitis during the third trimester of pregnancy.

Key Words: Appendicitis, Postoperative complications, Pregnancy, Premature Birth

ÖZET

Gebelikte intraabdominal operasyona gerek duyulan en sık non obstetrik durum apandisit hastalığıdır. Gebelikte meydana gelen anatomik ve fizyolojik farklılıklar apandisitin tanısını komplike bir hale getirmektedir. Cerrahi müdahale, fetal kayıp ve erken doğum için riskler getirse de tanıda gecikme anne ve fetüs için komplikasyon riskini arttırmaktadır.Anlatılan vaka sunumunda üçüncü trimester gebelikte apandisitin klinik karakteristiğini analiz etmek ve oluşan gebelik sonucunu değerlendirmek amaçlanmıştır.

Anahtar Kelimeler: Apendisit, Gebelik, Postoperatif komplikasyonlar, Prematür Doğum

INTRODUCTION

Appendicitis is the most common condition leading to an intraabdominal operation for a non-obstetric problem in pregnancy, occuring with a frequency of 1 in 500-2000 pregnancies, which amounts to 25% of operative indications for non-obstetric surgery during pregnancy[1]. Its incidence is similar to the one in the non-pregnant population. Although; the most common complaint is abdominal pain and nausea, the most common physical findings are abdominal tenderness and rebound and the most common labaratory finding is leukocytosis like in the non-pregnant patients, the diagnosis of acute appendicitis is more challenging during pregnancy[2]. In 25%-50% of patients, the preoperative diagnosis appears to be incorrect[3]. Its difficult to diagnosis because of the position of appendix changes with gestational age and the physiologic symptoms and signs of pregnancy are varied and all of radiological imaging techniques can not be used in pregnancy. Delay in diagnosis increases the risk of complications in mother and fetus with maternal or fetal death.Conversely, performing an appendectomy for a false diagnosis of appendicitis is associated to at least similar rates of fetal loss and preterm delivery than regular appendectomies[4]. Such complications may be related to the surgery itself or misdiagnosed disease. In order to prevent these risks, early diagnosis and early treatment are essential. During

the past 25 years, surgeons have transitioned from open appendectomy to laparascopic appendectomy for non-pregnant and pregnant patients. Laparascopic appendectomy is begining to be recognized as standart appendicitis treatment.The laparascopy is most often recommended during the first two trimesters.Guidelines are less clear but an increasing number of publications report about succcesful laparascopic appendectomies during the third trimester[4-6]. The following case illustrates our experience and to analyze clinical characteristic and the pregnancy outcome of appendicitis during the third trimester of pregnancy.

CASE

A 29 year old G2P1 of 24 weeks gestation reported to hospital emergency department with compliant of periumblical abdominal pain that began 5 hours prior. The pain intensified throughout the day with localization to the right lower abdomen. She reported nausea but denied vomiting, vaginal discharge, bleeding, constipation or fever. Examination revealed a gravid abdomen 24 weeks, tenderness and guarding right lower abdomen. The patient sent for ultrasound which was negative for appendicitis. The patient developed worsening pain. For this condition, laparascopic appendectomy was performed by general surgeon under general anesthesia showing an acutely inflamed nonperforated appendix (Figure 1). After operation the patient was hospitalizated to the obstetric department. However postoperative 7 days the patient had worsening abdominal pain and sent to the secondary ultrasound.The ultrasound showed free fluid in all the quadrants of abdomen. The general surgery consultation was in agreement about second operation. Open laparatomy under general anesthesia was performed. Diffuse peritonitis and peritonel abcess was showned and drainated. The surgeon showed unfastened appendix clips in abdominal cavity. Apendix stump was repaired and the operation was finished. However after 20 hours of second operation the patient presented to labor and delivery with premature labor and spontaneus vaginal delivery. The baby was delivered vaginally at 650 g birth weight. In the delivery room the baby was intubated and the apgar scores were 4 and 6 at 1st and 5th minute, respectively.Patient was admitted to neonatal intensive care unit and fetal death occured after one day of admission. Postoperatively, the mother treated with antibiotics and she did well and was released on postoperative day ten.

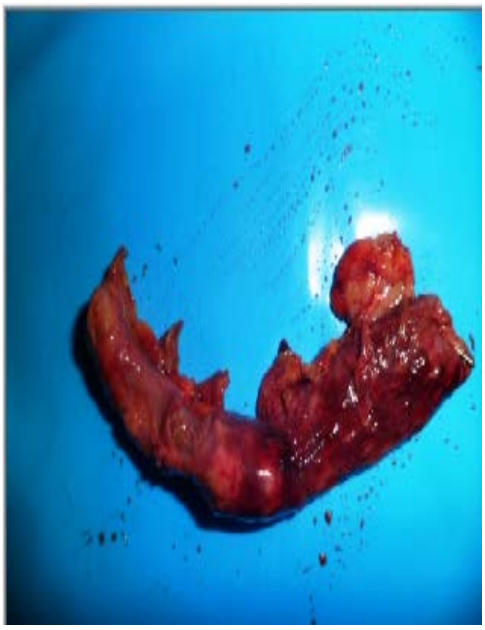

Figure 1. Apendectomy material

DISCUSSION

Acute appendicitis during pregnancy the incidence by trimester is 32%, 42% and 26%[7]. The potential effects of not operating the patient or immediate surgery are important for both mother and unborn child. Diagnosis of appendicitis is complicated by the physiologic and anatomic changes that occur during pregnancy. It also occurs usually in the second or third trimesters[8]. Although a surgical procedure carries the risk of fetal loss or preterm delivery also delay in diagnosis increases the risk of complications in

both mother and fetus. In this case the surgery was performed and a complication was occured. Fetal loss associated with appendicitis, most of the risk arises from inflammatory response to ruptured of the appendix with subsequent peritonitis. In our case we were shown the unfastened appendix clips and the cause of peritonitis and peritoneal abscess. Preterm labor associated with the inflammatory pathway is well published in obstetrical literature. Inflammation is responsible for about 10% fetal loss rate in pregnant women with peritonitis[3]. Also in our case after peritonitis and peritonel abscess the pretem delivery was presented.

In conclusion, surgical emergencies may be difficult to recognize in pregnant patients. The investigation of acute abdomen is challenging. Also the preoperative and postoperative complications of appendicitis in pregnancy must be known. The surgical care must be taken in the appendicitis during the third trimester of pregnancy. Guidelines are less clear but an increasing number of publications report about succesful laparascopic appendectomies during the third trimester. The importance of appendicitis in the third trimester of pregnancy and the complications of appendicities should be kept in mind and preterm labor risk was should be considered postoperatively.

REFERENCES

1. Long SS, Long C, Lai H, Macura KJ. Imaging strategies for right lower quadrant pain in pregnancy.Am J Roentgenol. 2011; 196:4-12.
2. Ueberrueck T,Koch A,Meyer L,Hinkel M,Gastinger I: Ninety-four Appendectomies for suspected Acute Appendicities during Pregnancy. World Journal of Surgery. 2004; 28: 534-40.
3. Tracey M,Fletcher HS. Appendicitis in pregnancy. Am Surg. 2000; 66:555-9.
4. Machado N,Grant C:Laparascopic appendicectomy in all trimesters of pregnancy. JSLS, 2009; 24:383-9.
5. Halkic N, Tempia-Caliera AA, Ksontini R, Suter M, Delaloye J-F, Vuilleumier H. Laparoscopic management of appendicitis and symptomatic cholelithiasis during pregnancy. Langenbeck's Archives of Surgery. 2006; 391:467–71.
6. Perrot Md, Jenny A, Morales M, Kohlik M, Morel P. Laparosocpic appendectomy during pregnancy. Surg Laparosc Endosc Percutan Tech. 2000; 10:368–71.
7. Cilo NB, Amini D, Landy HJ. Appendicitis and Cholecystitis in Pregnancy. Clin Obstet Gynecol. 2009; 52:586-96.
8. Lyass S, Pikarsky A, Eisenberg VH. Is laparascopic appendectomy safe in pregnant women? Surg Endosc. 2001; 15:377-9.

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