

Gebelikte Görülen Nadir Bir Akut Karın Nedeni: İncebarsak İskemisi**A Rare Cause Of Acute Abdomen In Pregnancy: Small Bowel Ischemia**

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**Özet**

Gebelikte akut karın hala tanı koyulmasında ve tedavi edilmesinde güçlüklerle karşılaşılan bir durumdur. Gebelikte oluşan fizyolojik ve anatomik değişiklikler tanı ve tedaviyi zorlaştıran nedenlerdir. Yirmialtı yaşında 29 haftalık gebe hasta karın ağrısı nedeniyle değerlendirildi. Ağrı özellikle sağ üst kadranda idi. Ultrasonografik incelemede sağ üst ve alt kadrarlarda minimal serbest sıvı ve bir segmentte ince barsak ansında genişleme görüldü. Hasta ameliyata alındı. İskemik ince barsak ansı görüldü. Öncelikle sezeryan yapılmasına karar verildi ve ardından rezeksiyon yapıldı. Gebelerde olası bir akut karın şüphesinde, medikal ya da cerrahi tedaviye hızlı karar verilmeli ve üçüncü trimesterdaki gebeliklerde gerek duyulduğunda sezeryan yapılabileceği de akılda bulundurulmalıdır.

Anahtar Kelimeler: Akut karın, gebelik, incebarsak iskemisi**Abstract**

Acute abdomen in pregnancy is still a condition which poses problems in diagnosis and treatment. The physiological and anatomical changes in pregnancy account for the reasons that complicate diagnosis and treatment. The 26-year-old 29-weeks pregnant patient was examined because of abdominal pain. The results of her ultrasonographic revealed minimal free fluid in both the upper and lower right quadrants and dilatation in a segment of small intestinal loop. She was taken into surgery. Ischemic small intestine loop was seen. It was decided that she needed a c-section firstly and then resection were performed. Physicians should rapidly decide on medical or surgical treatment and should note that c-section can be performed, if need be, during the third trimester in possible acute abdomen cases in pregnant patients.

Keywords: Acute abdomen, pregnancy, small intestine**INTRODUCTION**

Acute abdomen in pregnancy has been an incidence that poses problems in terms of diagnosis and treatment. Physiological and anatomical changes in pregnancy are the reasons that complicate diagnosis and treatment. The most frequently observed cause of non-obstetric acute abdomen is acute appendicitis (1). The rate of acute abdomen in pregnancy is 1 in 500-635 cases. On the other hand, intestinal obstruction takes the third place among the causes of acute abdomen in pregnancy (2). 60-70% of the reasons for this intestinal obstruction are based on adhesions related to the patients' previous history of abdominal procedures (3).

The purpose of this study is to present the case of a 29-weeks pregnant patient with small intestinal ischemia related to brid, which is a rare cause of acute abdomen.

CASE REPORT

The 26-years-old 29-weeks pregnant patient was examined upon her complaint of abdominal pain. The patient's pain was especially intensive in the upper right quadrant. Nausea or vomiting were not accompanying the continuous pain. Her examination revealed palpation and sensitivity in the upper right quadrant. The patient's laboratory results showed a slight elevation in her leukocyte value and C-reactive protein (CRP), while her procalcitonin level was within normal bounds. There was neither rebound nor defense. Since the patient was pregnant, she had abdominal magnetic resonance imaging (MR). The results showed no distinctive pathology other than minimal free fluid in the upper right quadrant. The patient was initially thought to have infectious intestinal disease, cholecystitis, and peptic ulcer. Medical treatment was initiated and she was prescribed antibiotics. The patient was re-evaluated after 8 hours and it was seen that her pain spread towards the lower right quadrant. She had no

deterioration in the severity of her complaints but her leukocyte, CRP, and procalcitonin levels were elevated. The results of her control ultrasonography (USG) revealed minimal free fluid in both the upper and lower right quadrants and dilatation in a segment of her small intestinal loop. The patient had had appendectomy 2 years ago and her obstetrician and gynecologist (OBGYN) found no pathologies related to pregnancy. She was taken into surgery by OBGYN and general surgery departments. Necrotic smelling fluid in the abdomen and ischemic small intestine loop were observed. It was decided that she needed a c-section firstly. A necrotic small intestinal loop of about 30 cm beginning from the ileocecal area towards the proximal was observed but she had no perforations (Figure 1). Resection and anastomosis were performed.



Figure 1 : Necrotic small intestinal loop

DISCUSSION

The most frequent cause of non-obstetric acute abdomen is acute appendicitis. The incidence of acute appendicitis in pregnancy is 1 in 1500 pregnancies (4). Although acute appendicitis is one of the first considered causes of acute abdomen in pregnancy, this pre-diagnosis was withdrawn since she had had a history of appendectomy 2 years ago. As the imaging examination demonstrated intestinal dilatation and she had a history of surgery, she was thought to have intestinal obstruction due to adhesion. There are periods in pregnancy during which the risk of intestinal obstruction

increases. These are the periods between weeks 16 and 20 during which there happen rapid changes in the size of the uterus, weeks 32 and 36 during which the head of the fetus is located in the pelvis, and the early post-partum period (5). Apart from these periods during which intestinal obstruction is frequently encountered, our patient was detected to have intestinal obstruction during the 29th week of her pregnancy. 60-70% of the causes of obstetric intestinal obstruction happen due to adhesions related to previous abdominal procedures (6) similar to the case of our patient. The second most frequent cause of obstetric obstructions is intestinal volvulus (25%); the other causes include intussusceptions, hernias, and cancers (3).

The patient wasn't diagnosed with acute abdomen in her physical examination. There were no additional pathologies other than the sensitivity in the upper right quadrant. Since the uterus pushes the abdominal wall off in pregnancy, sensitivity cannot be detected in many patients and a full assessment cannot be achieved because of large uterus (7). Although the diagnosis was held through laboratory results, the patient's infection follow-up could not be done safely with these laboratory results because of the physiological changes that are seen in pregnancy such as the decrease in the number of blood platelets (8), the mean blood leukocyte count of 10.000-14.000/ml and the fact that this value can even go up to 25.000/ml (9).

In pregnant patients with abdominal pain USG, as a diagnostic imaging method, is a safe, non-invasive and a preferred method because it does not expose patients to radiation. But it does not provide sufficient help in diagnosis because of the growth of the uterus and the displacement of the intra-abdominal organs (10). It has been demonstrated that the MR imaging results in pregnant patients had a

higher accuracy rate in comparison with medical monitoring and post-op diagnoses (11). Our patient had MR first. No pathological findings were seen other than minimal free fluid and minimal dilatation in the small intestinal loop. Her USG results were not different than her MR results. No definitive diagnosis was achieved through MR or USG.

Morbidity and mortality rates in acute abdomen cases related to intestinal obstruction diagnosed during pregnancy vary according to the delays in diagnosis and treatment. Fetal death rate in maternal intestinal obstruction cases is between 20 and 26% (4), while maternal mortality rate is about 6-20% (12). Our patient was non-responsive to medical treatments and it was decided within the first 24 hours that she needed to be taken into surgery. The procedure was performed with a midline incision as suggested (13). It was decided that she should first have a caesarean section (c-section) because the necrotic intestine wasn't able to be reached because of the size of the uterus, the risk of losing the baby during the procedure alongside with the possibility of preterm labor during the post-op period, and the difficulty in post-op anastomosis follow-up. Studies have stated that c-section could be performed during the 3rd trimester if no exploration could be achieved (14). In one case, a 29-weeks pregnant patient had resection and anastomosis related to intestinal ischemia but no c-section, however the patient had to be taken into a second surgery for a c-section since uterus contractions began on the post-op day 5 (15). In our patient, small intestine resection and anastomosis and c-section were performed simultaneously. The mother was discharged on the post-op day 8 and the baby was in a good condition.

Acute abdomen in pregnancy is a case that is hard to diagnose and treat. The most significant criterion which affects mortality and morbidity is the delay in diagnosis and treatment. In case

of a possible acute abdomen case, decision for medical or surgical treatment should be taken immediately and also it should be kept in mind that need for a c-section may reveal for patients who are in the third trimester.

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