Ulus Cerrahi Derg 2016; 32: 289-291
DOI: 10.5152/UCD.2015.2884

Gastric bezoar with small bowel obstruction

İnce barsak obstrüksiyonu yapan gastrik bezoar

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ABSTRACT

In the operation performed on a patient with a history of abdominal surgery, a gastric bezoar and a small bowel bezoar were detected. Adhesive bowel obstruction was suspected; however, the patient was diagnosed with mechanical intestinal obstruction. Small bowel bezoar has resulted in intestinal obstruction. This case was discussed in accordance with the literature.

Keywords: Bezoar treatment, gastric bezoar, small bowel bezoar

ÖZET

Mekanik intestinal obstrüksiyon tanısı konulan ve geçirilmiş karın ameliyatı anamnezi ile brid ileus düşünülen hastada, ameliyat sırasında; ileumda obstrüksiyona sebep olan bezoar ve gastrik bezoar saptandı. Olgu literatur bilgileri ile tartışıldı.

Anahtar Kelimeler: Bezoar tedavisi, gastrik bezoar, ince barsak bezoarı

INTRODUCTION

Bezoar is the mass of indigestible materials which accumulate in gastrointestinal system (1, 2). Although anatomic differences and motility disorders of the gastrointestinal system are predisposed, they can also be experienced in normal people. Apart from the diagnosis of conditions such as stomach ache, intraabdominal mass, anemia, malnutrition, gastric ulcer, this condition can be experienced due to complications of surgical interventions (3).

CASE PRESENTATION

Male patient was 45 years old. He came to the emergency service with abdominal pain. He was suffering from a continuous abdominal pain in the last few days and also constipation and gas in the last 2 days. He had undergone a surgical operation for the treatment of his ulcer and he has a scar in the midline. During auscultation, tenderness towards palpation and mechanical resonance was observed. He was suffering from colic pain. Leukocytes (22.000) were detected in laboratory analysis. Abdominal radiography suggested an obstruction and suspicious opacity in small intestine. In addition, angle between air and liquid had reached 90 degrees at some points. There was no air fluid level in colon. The patient's body temperature was normal and there was no air observed in abdominal radiography (Figure 1).

Performing a surgical operation was planned with the diagnosis of mechanical intestinal obstruction and the patient has given his written informed consent. In the operation, four old suture materials were detected in pylorus. Intraluminal mass that obstructed the lumen is detected to be located at 100 cm proximal from ileocecal valve. It was determined that the opacity detected in abdominal radiography had been the bezoar in the ileum. The small bowel was dilated at the proximal of the mass. There was no adhesion in the small bowel. Since it was observed in the examination that the mass was fragmented with palpation, the passage was opened without enterotomy. Fragmented bezoar parts were directed to caecum and small bowel decompressed with retrograde milking. In the operation, another mass lesion, which was 12 x 6 x 6 cm in size, was detected in fundus and it was removed (Figure 2). No complications were detected during the postoperative observation.

DISCUSSION

There are four different types of bezoars formed by undigestible materials; Phytobezoars: formed by fruit and vegetable fibroids, Trichobezoars: formed by hair, Lactobezoars: formed by milk and milk products, and Others: formed by medicines, paper, sand etc. (1).

Even though the best way to determine bezoars is endoscopic examination, other imaging methods can also be used (1, 4). Bezoars can be detected by using ultrasonography as an intraluminal mass with

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Received / *Geliş Tarihi*: 02.09.2014
Accepted / *Kabul Tarihi*: 29.10.2014
Available Online Date / *Çevrimiçi Yayın Tarihi*: 19.06.2015

Available online at
www.ulusalcerrahidergisi.org

Figure 1. Abdominal radiography


Figure 2. Gastric bezoar

acoustic shadowing (5, 6). In addition, dilatation in intestinal loops and free abdominal liquid can be detected with ultrasonography. Since small bubbles are characterized as "mottled appearance", they can be detected as an intraluminal ovoid mass in CTs. This appearance is called 'small bowel feces-sign (6, 7). CT is acknowledged as the ideal methodology to determine the intestinal obstruction as it can demonstrate the reason and the level of obstruction (7, 8).

Main predisposing factors are; history of stomach operations (especially pyloroplasty and vagotomy operations), diabetic gastroparesis, peptic ulcer, psychiatric disorders (1).

Even though there are different treatment options in the literature such as endoscopic extirpation, enzymatic fragmentation, lithotripsy, and coca cola injection, surgical operation is required especially in case of complications (1). The most common complication is intestinal obstruction. Intestinal obstruction mostly occurs in ileum and sigmoid colon where the intestinal loops are narrower (9). Bezoar can be smeared on caecum or rectum. According to the damage in the intestine, enterotomy or resection can be applied (2, 6). In addition, it must be kept in mind that there may be different bezoars in different parts of the gastrointestinal system of these patients. The percentage of patients with determination of bezoars both in stomach and intestines is 17-21% (10). Residual bezoars can cause new obstructions in 9% of patients (6).

In our case, level of leukocytes (22.000), sharpness of air-liquid level angles in abdominal radiography and distinct tympanic-sounds led us to emergency surgical operation.

There were two uniformly contoured opacities observed in direct abdominal radiography. 18% of the bezoars can be detected with abdominal radiography examinations (2). These opacities are also detected in surgical operation.

CONCLUSION

Attentive preoperative examination provides important data about the etiology of the condition. In this case, intestinal obstruction and two radiopaque masses are detected with abdominal radiography. These masses can be defined in terms of etiology as obstructive. According to our opinion, the best way to minimize morbidity and mortality during bezoar treatment is to fragment the obstruction by depressing without splitting up the lumen.

Informed Consent: Written informed consent was obtained from patient who participated in this case.

Peer-review: Externally peer-reviewed.

Author Contributions: Concept - A.U.U., E.A.; Design - A.U.U., E.A.; Supervision - A.U.U., E.A.; Funding - A.U.U.; Materials - A.U.U.; Data Collection and/or Processing - A.U.U., E.A.; Literature Review - A.U.U., E.A.; Writer - A.U.U.; Critical Review - A.U.U., E.A.; Other - A.U.U.

Conflict of Interest: No conflict of interest was declared by the authors.

Financial Disclosure: The authors declared that this study has received no financial support.

Hasta Onamı: Yazılı hasta onamı bu çalışmaya katılan hastadan alınmıştır.

Hakem değerlendirmesi: Dış bağımsız.

Yazar Katkıları: Fikir - A.U.U., E.A.; Tasarım - A.U.U., E.A.; Denetleme - A.U.U., E.A.; Kaynaklar - A.U.U.; Malzemeler - A.U.U.; Veri toplanması ve/veya işlemesi - A.U.U., E.A.; Literatür taraması - A.U.U., E.A.; Yazıyı yazan - A.U.U.; Eleştirel İnceleme - A.U.U., E.A.; Diğer - A.U.U.

Çıkar Çatışması: Yazarlar çıkar çatışması bildirmemişlerdir.

Finansal Destek: Yazarlar bu çalışma için finansal destek almadıklarını beyan etmişlerdir.

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