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PERITONEAL ENCAPSULATION PRESENTING WITH INTESTINAL OBSTRUCTION

Case Report

İNTESTİNAL OBSTRUKSİYONLA ORTAYA ÇIKAN PERİTONEAL ENKAPSÜLASYON

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SUMMARY

Peritoneal encapsulation is a rare developmental anomaly, in which small intestines are surrounded by an accessory peritoneal sac. Usually, the anomaly stays asymptomatic but can rarely cause intestinal obstructions. Preoperative diagnosis of the peritoneal encapsulation is known to be impossible. The diagnosis can be only accomplished with laparotomy. In this article, we aimed to present a case of a retroperitoneal encapsulation with intestinal obstruction, and discuss the features of the disease with medical literature.

Key words: *intestinal obstruction; laparotomy; peritoneal encapsulation.*

ÖZET

Peritoneal enkapsülasyon çok nadir görülen gelişimsel bir anomalidir. İnce barsakların aksesuar bir periton kesesi tarafından sarılmasıdır. Sıklıkla asemptomatik seyreden ve nadiren intestinal obstrüksiyona neden olan bir hastalıktır. Preoperatif peritoneal enkapsülasyon tanısı koymak mümkün değildir. Tanı ancak laparotomi ile konulabilmektedir. Yazımızda intestinal obstrüksiyon tablosuyla ortaya çıkan peritoneal enkapsülasyon olgusu ile, bu hastalığın özelliklerini literatür eşliğinde ortaya koymayı amaçladık.

Anahtar Sözcükler: *İntestinal obstruksiyon; laparotomy; Peritoneal enkapsülasyon.*

INTRODUCTION

Peritoneal encapsulation is a rare developmental abnormaly in which a part or the entire small bowel is encased in an accessory sac derived from the yolk sac(1,2). Only a few cases have been reported in the literature and presentation as bowel obstruction is extremely rare.

CASE REPORT

A 45-year-old, male patient with a previous abdominal surgery, no additional disease, admitted to our hospital with complaints of nausea, vomiting, abdominal pain and bloating. He had a history of complaints for seven months and his complaints intensified after meal and they were decreasing after vomiting.

Patient had lost 15 kg during that period. Physical examination revealed asymmetric abdominal distention evident in upper abdominal quadrants, not accompanied by the lower quadrants. Abdominal wall was smoother in the region of distention. Abdominal palpation revealed more flat and firm lower abdominal quadrants. The blood test was normal. Abdominal X-ray revealed dilated small bowel segments (**figure 1**).

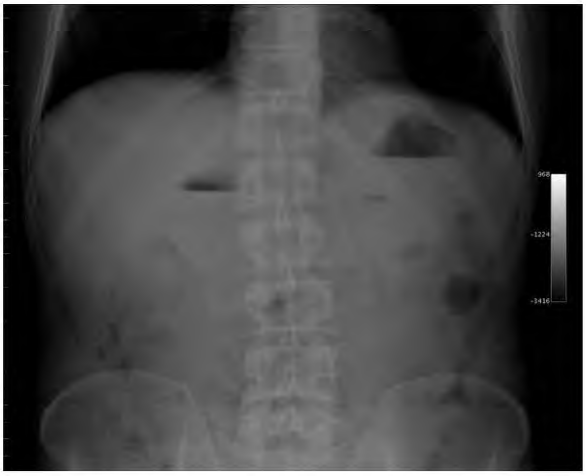

Figure 1:*Direct Graphy.*

Air-water level at duodenum and left upper quadrand.

IV/oral contrast-enhanced abdominal CT, showed dilatation in the stomach, duodenum and proximal jejunum, and normal diameters in distal segments of small intestines and colon (**figure 2** A-B-C).

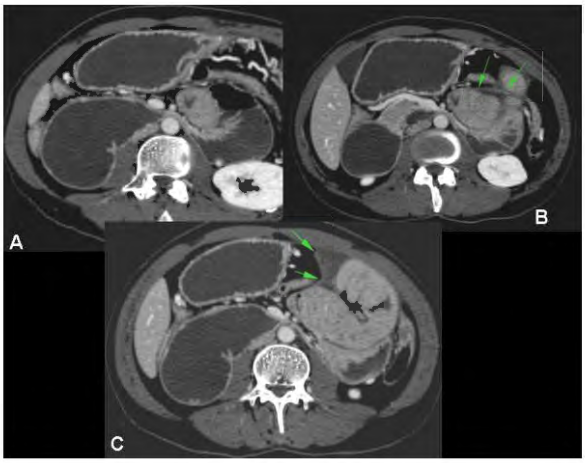

Figure 2:A-*Dilatation at stomach,duodenum and jejunum at the axial CT.*

B-C: *Conglomeration of intestine and peritoneal thickening surrounding the intestine from anterior side and minimally fluid at inferior levels of axial CT.*

No clear pathology was found to explain obstruction symptoms.

Upper endoscopy showed dilatation in stomach and duodenum while lower endoscopy failed to reveal any intraluminal pathology. As obstruction clinic continued and diagnostic tests were insufficient to accomplish the diagnosis, an exploratory laparotomy was planned. The entire small intestines, from the ligament of Treitz to the cecum, were found to be wrapped round by an accessory peritoneum. The peritoneum was excised intraoperatively andintestines were freed. On postoperative 7th day, patient was discharged with complete healing. Patological report was fibrous band.

DISCUSSION

Peritoneal encapsulation is a very rare developmental anomaly. It is known to be an accessory bag developed from yolk sac, surrounding all of the small intestines (1). This anomaly occurs in the period of 12th week of embryological life while the umbilical hernia of peritoneum returns to

abdominal cavity with midgut(2). The condition was first described by Cleland in 1868 (3). Although it is usually asymptomatic, it can rarely cause intestinal obstruction. In physical examination, it can show up as an asymmetric abdominal distention, as seen in our patient. Distended area of the abdomen is smoother in palpation while the non-distended area is flat and hard. The diagnosis is often made by laparotomy performed because of intestinal obstruction. Peritoneal encapsulation is a difficult case to diagnose. Patients with peritoneal encapsulation do not show the characteristic radiological findings (4). There are no specific evidences of the disease in CT. As in our case, CT can only reveal nonspecific intestinal obstruction findings. A thin membrane that surrounds small intestines detected in CT scan may inspire peritoneal encapsulation (4). Patients who underwent laparotomy for other reasons were reported as asymptomatic cases (6). Sclerosing encapsulating peritonitis and abdominal cocoon are frequently but incorrectly used in medical literature for peritoneal encapsulation (7). Sclerosing encapsulating peritonitis is a disease characterized by a white, thick fibrous membrane surrounding small intestines which is seen in chronic peritoneal dialysis and patients using practolol (8,4).Moreover, abdominal cocoon is a disease seen in young women living in tropical regions, which is known to cause acute or chronic obstructions caused by retrograde menstruation (4). These two diseases should be considered in the differential diagnosis. Immediate surgery is indicated in the treatment of these patients. The treatment of the peritoneal encapsulation is the excision of the accessory peritoneum surrounding the intestine. Surgical mortality rate of peritoneal encapsulation is low. However, there is not enough data about long-term recurrence and survival in medical literature. Although it is very rare, peritoneal encapsulation should be considered in the differential diagnosis of intestinal obstructions.

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