

## Case Report / Olgu Sunumu

### A rare cause of intestinal obstruction: obturator hernia

### İntestinal obstrüksiyonun nadir bir nedeni: obturator herni

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#### Abstract

Obturator hernia is a rare pelvic hernia which represents 1% of all hernias. Obturator hernia, which is generally observed in elderly thin women having an accompanying disease, is diagnosed late since it has no specific symptoms and findings. For this reason, morbidity and mortality rates are high in obturator hernia. Of the patients with obturator hernia, 0.4% have mechanical intestinal obstruction. The most frequent finding of obturator hernia is intestinal obstruction with strangulation. Treatment of obturator hernia is emergent surgery. In this case report, we present an obturator hernia case having a positive Howship-Romberg sign and typical appearance in computerized tomography.

**Keywords:** Obturator hernia, intestinal obstruction, computerized tomography, Howship-Romberg sign

#### Özet

Obturator herni tüm hernilerin %1 kadarını oluşturan nadir bir durumdur. Çoğunlukla eşlik eden bir hastalığı olan yaşlı ve zayıf kadınlarda görülür. Spesifik belirti ve bulguları olmadığı için geç tanı konur ve mortalite ve morbidite yüksektir. Olguların %0,4'ünde mekanik intestinal obstrüksiyon gelişir. En sık bulgusu strangülasyon ile birlikte olan intestinal obstrüksiyondur. Tedavisi acil cerrahi olarak yapılır. Bu olgu sunumunda bilgisayarlı tomografi ile pozitif Howship-Romberg bulgusu ve atipik görüntü izlenen bir obturator herni olgusu irdelenmiştir.

**Anahtar sözcükler:** Obturator herni, intestinal obstrüksiyon, bilgisayarlı tomografi, Howship-Romberg bulgusu

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## Introduction

Obturator hernia is a rarely observed abdominal hernia. It was first described by Arnaud de Ronsil in 1724 and repaired successfully by Obre in 1851 (1-2). Obturator hernias occur as a result of protrusion of obturator nerve and muscles through the obturator foramen in pelvis. It is observed in elderly thin and multiparous women. Obturator hernia is nine times more common in females due to their wider obturator canal in pelvis (3). Most often the jejunum and ileum distend into the hernia sac (4), and mechanical small bowel obstruction is the most important symptom (5). However, there exist cases having no obstruction finding, too (6). Recently, CT has become important in rapid diagnosis and early surgery in obturator hernia (7,8).

## Case

A 62 old female patient having no complaints earlier applied to our emergency service with complaints of abdominal pain and no gas-gaita discharge for 2 days. She had a history of hypertension, chronic obstructive pulmonary disease, polymyositis and diabetes. She had no previous intra-abdominal operation and was multiparous with an approximate height of 1.55 m. Her systolic /diastolic blood pressure was 140/70 mmHg, pulse was 95/min, respiratory rate was 20/min, fever was 37 degrees and oxygen saturation was 95%. Her general status was good, she was conscious, cooperative and oriented. Her physical examination revealed widespread tenderness and distention. There was no rebound and defence was positive. Bowel sounds were normoactive while tympanic sounds were found on percussion. Howship-Romberg sign was positive.

No abnormal finding was found in rectal and vaginal examinations. All the other system examinations were normal. The results obtained in her laboratory examination were as follows: glucose:111 mg/dl (80-115 mg/dl), BUN: 20 mg/dl (9.8-20.1 mg/dl), creatinine: 0.40 mg/dl (0.6-1.3 mg/dl), sodium: 138 mmol/L (136-145 mmol/L), potassium: 3,81 mmol/L (3,5-5,1 mmol/L), white blood cells: 5.32 U/L (4-10.3 U/L). Direct abdominal x-ray showed dilated bowel loops and obstruction (Figure 1). A CT scan performed two hours after her application with the diagnosis of mechanical intestinal obstruction revealed an obturator hernia causing obstruction on the left side (Figure 2). The patient hospitalized at the general surgery service was operated 5 hours after her arrival. Laparotomy showed distention of small bowel loops into the hernia sac 165 cm distal from Treitz. There was no perforation in the bowel segment. There was damage only in serosa so primary repair was performed. The defect in obturator foramen was repaired primarily without any drain, and the patient was discharged on the fifth day.

## Discussion

Obturator hernia is a rarely observed abdominal hernia. Among all hernias, its incidence is approximately 15 (9). Advanced age, low body mass index (between 13-19), being multiparous, and conditions increasing abdominal pressure such as chronic obstructive pulmonary disease are the predisposing factors to develop obturator hernia (10). Obturator hernia is known as the disease of elderly thin women. 60% of the obturator hernias occurs on the right side while the percentage of bilateral hernias is 6-15%. It has been reported

that females tend to have right sided hernia while males tend to have left sided hernia (11). In compliance with the literature, our case was a thin and old multiparous female. However, her hernia was a left sided one. She had no history of abdominal operation.



**Figure 1. X-Ray Image of obturator hernia.**

Intestinal obstruction is the most frequently observed (80%) sign among four main signs of obturator hernia. Generally, acute obstruction presents with strangulation, which leads to abdominal cramps, nausea and vomiting. The second most frequent sign is the Howship-Romberg sign. This sign is a pain in the medial thigh or sometimes medial knee as a result of the compression of the anterior branch of the obturator nerve by hernia. Howship-Romberg sign is positive only in 15-50% of the cases having obturator hernia (1). The other two signs are the ecchymosis below the inguinal ligament in the inner thigh and palpable mass at the obturator region during vaginal examination. There can be an inguinal mass if hernia sac moves below the pectineus muscle. These masses are palpated best during flexion, adduction and outer rotation (10).

Another frequent sign of obturator hernia is the Hannington-Kiff sign. In these cases, there is an absent adductor reflex in the thigh in the presence of a positive patellar reflex (12). Our case presented with intestinal obstruction and her Howship-Romberg sign was positive. Her examination revealed no ecchymosis in the inguinal region. Similarly, vaginal examination showed no palpable mass.



**Figure 2. CT scan image of obturator hernia.**

Diagnosis of obturator hernia is difficult as the symptoms and findings are non-specific. Several imaging methods such as ultrasonography, herniography and CT are used to diagnose obturator hernia. Among these methods, CT has a high sensitivity and accuracy (13). Its diagnostic value is 78-100% and it is regarded as a gold standard for diagnosis (13,14). Our case underwent CT for obstruction.

The patient was taken to surgery urgently after observing obturator hernia at CT. In obturator hernia, surgical intervention is delayed as it is difficult to diagnose it during

preoperative period and as obstructive hernia does not come to mind at first. This increases the possibility of strangulation and perforation. It has been reported that intestinal ischemia, perforation and postoperative mortality rates are increased in 70% of the patients due to delay in diagnosis (15). Although there are non-surgical methods described in the literature (16), the main treatment method is surgery. Laparotomy with laparoscopic or midline incision is preferred more when compared to retroperitoneal and retropubic approaches.(8) Based on the size, defects are repaired by mesh or primarily. In our case, the defect was repaired primarily by laparotomy by midline incision.

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