CASE REPORT

Consecutive, Bilateral Obturator Hernia in a Single Case

HO Aydın, EHA Soy, T Avcı, T Tezcaner, S Yıldırım

ABSTRACT

Obturator hernia (OH) is a rare pelvic hernia. It is difficult to make an early diagnosis due to the absence of a palpable mass, so it has a high morbidity and mortality rate, and there is delay in surgery. Here, in this report, we present a case of bilateral OH diagnosed at different times. Our report is meaningful as it reveals consecutive OH in a single case. An 87-year old, female patient admitted to emergency with intestinal obstruction findings. Right obturator herniation was seen in a computed tomography (CT) scan, then she underwent urgent surgery. After 2 months, she admitted with left thigh pain. With these findings, CT scans confirmed left OH. In an elderly, skinny, female patient with non-specific bowel obstruction symptoms and medial thigh pain, OH should be considered. Early and rapid radiologic evaluation, followed by surgery, is essential for successful management of OH.

Keywords: Acute abdomen, intestinal obstruction, obturator hernia.

INTRODUCTION

Obturator hernia (OH) is a rare pelvic hernia. It is a significant cause of intestinal obstruction and has a high morbidity and mortality due to the difficulty in making an early diagnosis and delay in surgery. In the literature OH is reported mostly as case reports. Here, in this report, we present a case of bilateral OH diagnosed at different times. From this point of view, our report is meaningful as it reveals consecutive OH in a single case.

CASE REPORT

An 87-year old, female patient admitted to emergency with vomitting and abdominal pain for 2 days. Her vital signs were normal. She had mild abdominal distention. In her medical history, she had no co-morbid disease but it was noted that she had right thigh pain for six months. She was skinny with a body mass index (BMI) of 17 kg/m². Physical examination revealed intestinal obstruction findings and it was confirmed with plain abdominal radiography, showing dilated intestinal segments. Her laboratory findings were: creatinine—0.97 mg/dL (normal range 0.5–1.3 mg/dL), leucocyte—21.5×10³/mm³ (normal range 4.5–11×10³ /mm³) and C-reactive protein—50 mg/dL (normal range 0–10 mg/dL). For differential diagnosis of intestinal obstruction, we performed computed tomography (CT) scan and we diagnosed right obturator herniation. Computed tomography revealed dilatation of proximal ileal segments and right OH (Figure).

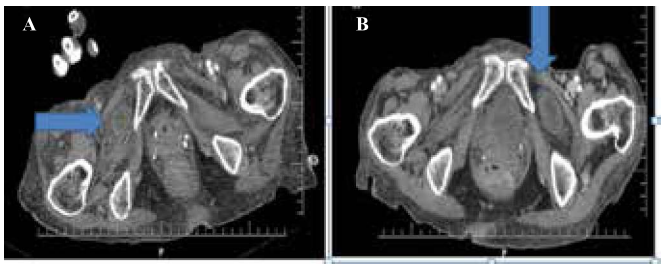

Figure: (A) Abdominal computed tomography (CT) scan, right obturator hernia (OB); (B) Abdominal CT scan, left OB.

We performed immediate laparatomy with low midline incision. After reduction of the herniated segments, the peritoneal layer over the obturator foramen was dissected and retroperitoneal obturator hernia repair was done with prolene mesh. The patient was discharged at the third day of the operation.

After 2 months, she admitted to clinic with left groin and left thigh pain with extension and abduction. Her laboratory findings were: creatinine—0.5 mg/dL

From: Department of General Surgery, Baskent University Faculty of Medicine, Ankara, Turkey.

Correspondence: Dr HO Aydın, Department of General Surgery, Baskent University Faculty of Medicine, Ankara, Turkey.
Email: dronuraydin@hotmail.com

DOI: 10.7727/wimj.2017.104

(normal range 0.5–1.3 mg/dL), leucocyte—5×10^3 /mm^3 (normal range 4.5–11×10^3 /mm^3) and C-reactive protein—5 mg/dL (normal range 0–10 mg/dL). With these findings and her medical history, we did CT scans and this time we detected left OH. Laparatomy was performed with low midline incision. After reduction of the herniated segments, retroperitoneal obturator hernia repair was done with prolene mesh. The patient was discharged at the third day of the operation without any complication. We followed-up with her for 15 months without recurrence of the condition.

DISCUSSION

Obturator hernia is a rare pelvic hernia with a reported incidence of 0.05%–1.5% of all hernias (1). Obturator hernia is mostly seen in elderly, skinny, multiparous women (2). Obturator hernia is seen six times more in women due to a wider and more obliquely inclined pelvis. In recent studies, patients with a defective collagen metabolism were reported to be more at risk. Other predisposing factors include conditions which cause increase in intraabdominal pressure, such as chronic constipation, chronic obstructive pulmonary disease, ascites and kyphoscoliosis (3). Although herniation is more common on the right side, bilateral obturator hernia is reported to be seen in 6% of cases (4).

Gray and Skandalakis defined OH in1974 in three stages: the first stage of herniation of preperitoneal fat through the obturator canal, the second stage with the peritoneal dimple neighbouring the obturator foramen and the third stage is the beginning of symptoms with the herniation of intraabdominal organs into the obturator canal (5). The diagnosis is made at this point with intestinal obstruction due to absence of palpable mass. Obturator hernia has non-specific clinical findings like intermittent abdominal pain, and recurrent intestinal obstruction symptoms that resolve without intervention, so diagnosis is mostly delayed (6). The preoperative diagnosis of OH is reported to be 10%–30%. Missed or delayed OH with incarceration has a mortality that rises up to 70% (7). In OH patients, extension and abduction and internal rotation cause pain along the medial part of the leg due to compression of the anterior division of the obturator nerve, and it is called Howship–Romberg sign which is the most evident symptom (8). Howship–Romberg sign is reported to be positive in 65% of OH cases (9). However, this sign is mostly disregarded and mistaken with neuromuscular pain, especially in an elderly patient. As the diagnosis is delayed, the risk of strangulation of an incarcerated intestinal segment increases (10). Early CT imaging provides early diagnosis with reduced morbidity and mortality associated with OH. Computed tomography is found to be more specific and sensitive than plain abdominal radiographs and ultrasonography.

Our patient was an elderly female and the first time she admitted to emergency was with nausea and vomitting due to intestinal obstruction. After CT scanning, obturator hernia of ileal segments was diagnosed. Then, she admitted with left groin pain, reflecting to her medial aspect of left leg and with positive Howship–Romberg sign. Left OH diagnosis was confirmed with urgent CT scans and both OH were repaired without resection of intestinal segments.

Early and rapid radiologic evaluation, followed by surgery, is essential for successful management. Abdominal, inguinal, open or laparascopic surgical approaches are described for OH repair. Mid-line incision is mostly preferred in reports as in the case of intestinal resection and better exposure. Recently obturator hernia repair has been performed by primary repair and placement of synthetic mesh.

In conclusion, OH is rare but may be mortal, due to delayed diagnosis. In an elderly, skinny, female patient with non-specific bowel obstruction symptoms and medial thigh pain, OH should be considered. All hernia orifices should be examined carefully and bilaterally. Immediate CT scanning should be done in a suspicious case for early diagnosis to avoid complications.

REFERENCES

1. Ziegler DW, Rhoads JE Jr. Obturator hernia needs a laparotomy not a diagnosis. Am J Surg 1995; **170:** 67–8.
2. Fitzgibbons RJ, Greenburg AG, Nyhus LM. Nyhus and Condon's hernia. Philadelphia, PA: Lippincott Williams & Wilkins; 2001.
3. Chang SS, Shan YS. A review of obturator hernia and a proposed algorithm for its diagnosis and treatment. World J Surg 2005; **29:** 450–4.
4. Haraguchi M, Matsuo S. Obturator hernia in an ageing society. Ann Acad Med Singapore 2007; **36:** 413–5.
5. Gray SW, Skandalakis JE. Strangulated obturator hernia. Surgery 1974; **75:** 20–7.
6. Cai X, Song X. Strangulated intestinal obstruction secondary to a typical obturator hernia: a case report with literature review. Int J Med Sci 2012; **9:** 213–5.
7. Mantoo SK, Mak K, Tan TJ. Obturator hernia: diagnosis and treatment in the modern era. Singapore Med J 2009; **50:** 866–70.
8. Karasaki T, Nakagawa T, Tanaka N. Obturator hernia: the relationship between anatomical classification and the Howship-Romberg sign. Hernia 2014; **18:** 413–6.
9. Kisaoglu A, Ozogul B. Obturator hernia, a rare cause of small bowel obstruction: case report. Eurasian J Med 2014; **46:** 224–6.
10. Leow JJ, How KY. Non-operative management of obturator hernia in an elderly female. Hernia 2014; **18:** 431–3.