Obturator hernia is a rare type of hernia which accounts for only 0.07–1.4% of all intra-abdominal hernias and 0.2–5.8% of small-intestinal obstructions. It develops predominantly in elderly underweight women. It has nonspecific early symptoms, so these hernias are usually discovered only after they have become incarcerated. Incarcerated obturator hernias are usually discovered on abdominal computed tomography scan or emergency surgery due to bowel obstruction.

Here we present a case of a 65-year-old female who presented with intermittent abdominal pain, distension and nausea for last 3 days. She was a known case of hypothyroidism, taking Levothyroxine in inadequate dose. Her initial abdominal X-ray was showing few air-fluid level with air present in rectum. She was initially managed conservatively but later developed features of peritonitis for which she was operated. In laparotomy, Richter type of right-sided incarcerated obturator hernia was discovered with a small necrotic area and perforation of small bowel. Bowel resection was performed and obturator hernia was closed with interrupted sutures. The patient recovered without complications.

Obturator hernia, due to its rarity and nonspecific early symptoms, can still be misleading even to the most experienced clinicians. Delay in diagnosis of obturator hernia can lead to bowel necrosis and perforation with significant postoperative morbidity and mortality.

Key words: Richter obturator hernia, strangulation

Obturator hernia is a very rare type of abdominal hernia (1). First time reported by Arnaud de Ronsil in 1724 and successfully repaired by Henry Obre in 1851. It accounts for 0.07–1% of all hernias and 0.2–1.6% of all small bowel obstructions (2).

It is more commonly diagnosed only during emergency surgery for bowel obstruction due to incarceration (3). It is predominantly found in elderly underweight women. It develops more frequently on the right side than on the left.

Richter type of bowel obstruction is partial obstruction of a loop of bowel, so that ischemia and perforation may develop, with no obstruction, which can lead to delay in diagnosis. Treatment of obturator hernia is surgical. Smaller hernias can be repaired or mesh reinforcement (4).

CASE REPORT

A 65 year old female presented with a 3-day history of abdominal distension with mild intermittent abdominal pain, nausea and passing flatus only. She was a known case of hypothyroidism, taking Levo-thyroxine in inadequate dose. On examination she was frail and emaciated with normal vitals. Hernial orifices were clinically normal. Her initial abdominal X-ray was showing few air-fluid level with air in rectum. Patient was found to be hypothyroidism. Her on admission T3 50 ng/dl, T4 2 mcg/dl and TSH 8.8 miliU/l levels were indicating poorly controlled hypothyroidism.

Operative findings

We found a loop of small intestine (4 feet from ileo caecal junction) that was fixed to the pelvic wall dorsal to the right femoral canal and appeared to be the site of obstruction. After mobilizing the small intestine, we established that it was partially incarcerated obtu-
Richter type of incarcerated obturator hernia; misery still continues

Richter type of incarcerated obturator hernia. The incarcerated part of small intestine was small necrotic 1 x 1 cm perforation, on antimesenteric side, which was resected and end to end anastomosis done. Postoperative course was uneventful and patient was discharge on 5th postoperative day and was doing well on subsequent follow-ups.

DISCUSSION

Richter’s hernia may be defined as an abdominal hernia in which only a part of circumference of bowel is entrapped and strangulated in hernial orifice (fig. 1 and 2).

The segment of the engaged bowel is mostly terminal ileum. But any part of the intestinal tract, from the stomach to the colon, including even the appendix may become incarcerated (5). In this case herniated loop was approx four feet proximal to ileocaecal junction.

The precondition for the formation of this particular hernia, as stated by Richter, is determined by the size and consistency of the hernial orifice: it must be big enough to enslave the bowel wall, but small enough to prevent protrusion of an entire loop of the intestine, and the margin of the hernial ring must be firm or, in Richter’s words, “possess strong spring-force” (6). According to others, the presence of a tight constricting ring is a prerequisite for strangulation and compromised blood circulation, which finally leads to ischaemia and gangrene of the involved bowel (7).

Richter’s hernias tend to progress more rapidly to gangrene than ordinary strangulated ones. Also difficult to diagnose because of the apparently innocuous initial symptoms and sparse clinical findings; the diagnosis may remain presumptive until clearly confirmed at surgery. Initially mild symptoms, such as vague abdominal pain and slight malaise, may not be appreciated, resulting in delayed diagnosis (8). There be nausea and vomiting, but they are on the whole less common and less severe than in the usual form of strangulation because obstruction is rarely complete.

According to localisation and the mode of herniation and entrapment, the clinical picture and course can vary considerably. As obturator hernia is not visible or easily palpable delay the diagnosis, so the majority of obturator hernias are discovered only after incarceration. This late recognition of obturator hernias is why obturator hernias are burdened with highest mortality of all abdominal hernias. Incarcerated obturator hernia usually causes symptoms of small bowel obstruction and is diagnosed during emergency surgery for small bowel obstruction or on CT scan of the abdomen (9).

The fact that it was a Richter type hernia that prevented the development of clear signs of intestinal obstruction, thus delaying indication for abdominal CT scan and subsequent surgery (10). Similarly in this case there was vague presentation of patient and associated hypothyroidism was misleading and patient was managed conservatively. Soon patient developed feature of peritonitis and emergency laparotomy done with increased risk of mortality and morbidity.

CONCLUSIONS

Obturator hernia is rare and present with nonspecific early symptoms, can still be misleading even to the experienced clinicians. Delayed diagnosis of obturator hernia is associated with bowel necrosis and perforation with significant postoperative morbidity and mortality.
REFERENCES


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