

# Obturator hernia: Little old lady's hernia

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## ABSTRACT

Obturator hernias are a rare occurrence and any delay in diagnosis may lead to prolonged bowel ischaemia and subsequent infarction which is associated with increased morbidity and mortality. This is a case of a frail and cachectic 85-year-old lady who presented with eight day history of abdominal pain, vomiting, absolute constipation and right hip pain on walking. Imaging showed a strangulated obturator hernia that was successfully managed with surgery.

**Keywords:** Obturator hernia, intestinal obstruction, abdominal hernia

## INTRODUCTION

Obturator hernias are a rare form of abdominal hernias with a reported incidence of less than 1% of all hernias.<sup>1</sup> (*For other types of abdominal hernias; Refer to Supplementary Text*) They usually occur in elderly women. Risk factors include multiparity and emaciation. Obturator hernia poses a diagnostic dilemma, as patients tend to present with non-specific signs and symptoms. This can result in a high mortality rate of 13-70%.<sup>2,3</sup> A case of an elderly woman who presented with small bowel obstruction secondary to an obturator hernia is reported to highlight the rarity and diagnostic difficulty of this condition.

## CASE REPORT

An 85-year-old woman was admitted via the Emergency Department with an eight day his-

tory of abdominal pain, vomiting, absolute constipation and right hip pain on walking. She had a history of constipation, hypothyroidism and osteoporosis, but no previous abdominal surgery. She also reported significant weight loss over the preceding months.

On examination she was frail and cachectic. Her pulse rate was 81 beats/min and blood pressure was 160/90 mmHg. Abdominal examination revealed a distended abdomen with mild lower abdominal tenderness. There was visible peristalsis and obstructive bowel sounds were heard. There were no obvious palpable hernias.

Laboratory investigation revealed elevated C-reactive protein (CRP) of 33 mg/dL (normal < 5) but no leucocytosis. The liver profile was normal. A plain abdominal radiograph revealed small bowel obstruction (Figure 1). A computered tomography (CT)

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**Fig. 1: Admission plain abdominal radiograph showing dilated loops of small bowel with loss of large bowel shadows.**

scan revealed a right obturator hernia with the distal ileum incarcerated within the sac causing small bowel obstruction (Figures 2).

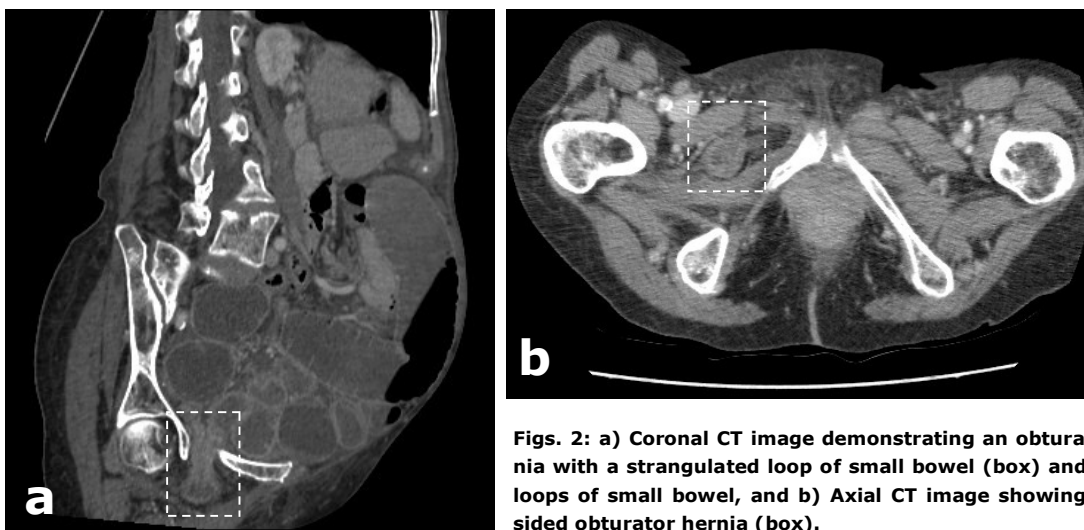
An emergency laparotomy (McEvedy's approach) was performed. There was necrosis along with perforation of the small bowel loop. The affected segment was resected and joined with an end-to-end anastomosis. The patient subsequently made a good post-

operative recovery and was discharged with no further recurrence.

## DISCUSSION

Obturator hernia was first described by Arnaud de Ronsil in 1722. It commonly affects those between the 7<sup>th</sup> and 9<sup>th</sup> decade of life with a female preponderance (ratio of up to 9:1).<sup>2, 3</sup> It is therefore nicknamed the 'Little Old Lady's Hernia'.

Obturator hernia occurs as a result of an opening or deficiency in the obturator membrane that covers the foramen.<sup>4</sup> It is through the obturator canal, which opens at the superior aspect of the obturator membrane that the obturator nerve, artery and vein enter the thigh from the pelvis. The obturator canal is normally filled with fat or adipose tissue and this disappears in emaciated patients. This coupled with chronically increased intra-abdominal pressure from chronic constipation facilitated the formation of an obturator hernia in our case. The obturator canal therefore becomes a natural area of weakness through which the hernia occurs.



**Figs. 2: a) Coronal CT image demonstrating an obturator hernia with a strangulated loop of small bowel (box) and dilated loops of small bowel, and b) Axial CT image showing a right sided obturator hernia (box).**

Gray *et al.* described the three stages in the formation of obturator hernia<sup>5</sup>; first stage; pre-peritoneal fat enters the pelvic cavity via the obturator canal, second stage; a peritoneal dimple occurs and this leads to the formation of a peritoneal sac, and third stage; herniation of viscera through into the sac causing symptoms.

The clinical features are non-specific and include recurrent incomplete small bowel obstruction that spontaneously resolves. The 'Howship-Romberg' sign is pathognomonic and is due to irritation of the obturator nerve. This is characterised by pain or altered sensation in the medial thigh, which is relieved on thigh flexion and worsened by thigh extension, abduction and medial rotation. This sign is positive in 15-50% of cases.<sup>2</sup> A more specific sign is the 'Hannington-Kiff' sign, which is described as loss of the thigh adductor reflex but an intact patellar reflex.<sup>2, 4, 6</sup> Our patient described symptoms of hip pain on the affected side, however this sign was not actively sought.

The mortality associated with a delayed diagnosis could be as high as 70%.<sup>3</sup> In cases of mechanical small bowel obstruction in a virgin abdomen where obturator hernia is suspected, CT scanning is useful to confirm a diagnosis. A high index of suspicion as well as early imaging can reduce the mortality risk.

Various surgical approaches have been described including laparoscopic surgery.<sup>4</sup> However open surgery is preferred in cases of peritonism. As the diagnosis tends to be delayed, patients often progress to develop signs and symptoms of peritonism and the

majority of cases are diagnosed intra-operatively.<sup>7</sup> With adequate pre-operative planning with the aid of CT scanning, a mid-line laparotomy could be avoided especially in elderly patients with multiple co-morbidities. In our case the McEvedy approach was performed, therefore sparing the patient the potential complications associated with a midline laparotomy.

In conclusion, an obturator hernia is rare and seen mainly in elderly woman. Early diagnosis is crucial and time is of the essence. Hence CT scan is particularly useful in diagnosing such occult hernias. Once the diagnosis is made and surgery is mandated, the laparotomy approach taken should be the least traumatic and most beneficial for the patient to ensure a faster recovery and better prognosis.

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