

Unusual cause of mechanical small bowel obstruction in a cachectic older multiparous woman

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DESCRIPTION

An 89-year-old multiparous woman presented to the emergency department with a 1-week history of multiple episodes of bilious vomiting, abdominal distention and lower abdominal pain—radiating to the right thigh. She had no history of abdominal surgery, however her comorbidities included diabetes mellitus and hypertension. On examination, she was noted to be cachectic with a distended abdomen, demonstrating epigastric tenderness with normal bowel sounds and a normal digital rectal exam. No inguinal hernias were evident. Apart from mild tachycardia the vital signs were normal. The patient was not in obvious distress. Blood investigations revealed an elevated potassium—6.5 mmol/L and creatinine levels—5.7 mg/dL. Plain abdominal films demonstrated dilated small bowel. A diagnosis of mechanical small bowel obstruction was made. Multi-detector CT (MDCT) without intravenous contrast revealed a right-sided obturator hernia (figures 1 and 2), containing incarcerated small bowel, with no features of strangulation or perforation. There was no evidence of ischaemic bowel on the non-contrast CT images, though intravenous contrast would have been ideal to evaluate completely. Intravenous contrast was contraindicated in this patient as the estimated glomerular filtration rate was 10 mL/min/1.73 m². Prior to surgery, this patient was stabilised with rehydration and acute correction of the elevated serum potassium level by intravenous infusion of calcium gluconate, glucose and insulin R. During surgery approximately 10 cm of ischaemic bowel was resected, with a primary anastomosis and mesh repair of the right obturator hernia defect. On day 6 postoperatively, the patient developed atrial flutter



Figure 1 Multi-detector CT without contrast (axial image) through the lower pelvis demonstrating a small bowel loop (arrow) located in between the right pectineus and external obturator muscles. There is no bowel wall thickening to suggest ischaemia.



Figure 2 Multi-detector CT without contrast (coronal slice) through the abdomen and pelvis demonstrating a bowel-containing right obturator hernia (arrow) with resultant dilatation of multiple loops of small bowel and consequent faeculation of small bowel contents. No features of strangulation or perforation.

for which cardioversion was utilised. On day 7, the patient started experiencing shortness of breath with an oxygen saturation of 92% (on room air). Cardiopulmonary arrest ensued secondary to a massive pulmonary embolism despite postoperative daily dosage of 40 mg prophylactic low-molecular weight heparin administration.

An obturator hernia is a relatively rare finding, accounting for 0.2%–1.6% of cases of mechanical intestinal obstruction.^{1 2} Recent studies have shown a higher incidence of 6% and suggested that the true incidence maybe higher if more patients underwent radiological evaluation prior to definitive management.³ Obturator hernias have a female predisposition with one study quoting an 1:16 male to female ratio.⁴ This higher occurrence in women is believed to be due to the difference in anatomy of the female pelvis, where there is an increased transverse diameter and a steeper oblique orientation of the obturator canal.⁵ An increase in the laxity of pelvic tissues secondary to atrophy of preperitoneal fat around the obturator vessels has been highlighted as a predisposing factor in the development of an obturator hernia. This is frequently seen in



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Images in...

underweight older women (70–90 years old); thus, the obturator hernia has been nicknamed the ‘Little Old Lady’s Hernia’.⁶

The most common locations of an obturator hernia are between the internal and external obturator muscles, between the superior and medial fasciculi of the external muscles, and between the pectineus and external obturator muscles (as seen in this case).⁷ The most specific clinical symptom of an obturator hernia is intermittent obturator neuralgia which is exacerbated by medial rotation, adduction or extension. Flexion tends to result in relief of symptoms.^{2 8 9} This pain pattern is known as the Howship–Romsberg sign and when associated with small bowel obstruction is pathognomonic of an incarcerated obturator hernia.⁹ This sign can be misinterpreted for osteoarthritis in the older patients.

There should thus be a high level of suspicion of an obturator hernia in underweight, multiparous, older women who present

with small bowel obstruction and features of obturator nerve compression. Prompt radiological evaluation, preferably with MDCT, aids in diagnosis and timely intervention.¹⁰

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Learning points

- ▶ Obturator hernia is a rare type of hernia usually presenting in elderly multiparous women and often poses a diagnostic challenge and thus should be considered in a thin, older woman with no prior abdominal surgery who presents with small bowel obstruction.
- ▶ CT plays a pivotal role in the diagnosis and preoperative workup of a suspected obturator hernia.
- ▶ Delays in presentation and management result in an increased incidence of complications of an obturator hernia, such as strangulation and bowel ischaemia, which contribute to the high morbidity and mortality rates.

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