

Obturator Hernia

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Section: Abdominal imaging

Imaging Technique: CT

Case Type: Clinical Cases

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Patient: 79 years, female

Clinical History:

Two days history of pain in the right lower abdominal quadrant, irradiating to the ipsilateral knee, and vomiting. Normal physical examination.

Imaging Findings:

The patient presented with a two days history of pain in the right lower abdominal quadrant, irradiating to the ipsilateral knee, and vomiting. On physical examination the abdomen was soft and nontender. Abdominal radiographs were performed on the day of admission and a CT scan of the abdomen five days later after progressive clinical deterioration.

Discussion:

Obturator hernia is a rare cause of mechanical intestinal obstruction (0.2-1.6%) and of hernia repair (1%). The obturator foramen is almost entirely covered by a fibro-osseous membrane, except at the anterosuperior aspect, the site of the obturator canal. This measures 2-3cm in length and houses the obturator vessels and nerve. The internal orifice is closed by parietal peritoneal and preperitoneal fat. Three types of obturator hernias have been described: hernia between the pectineus and obturator externus muscles as in our case (most common), hernia between the superior and middle fasciculi of the obturator externus muscle, and hernia between the external and internal obturator membranes (least common). Patients usually present with partial or complete mechanical small bowel obstruction. A mass is rarely palpable. The Howship-Romberg sign refers to ipsilateral pain in the thigh and knee aggravated by adduction. It is caused by compression of the cutaneous branches of the obturator nerve by the hernia. If associated with intestinal obstruction, it is quite specific, but it is observed in only a third of the patients. Although plain films most often exhibit non-specific findings of small bowel obstruction, the presence of gas overlying the obturator canal or superior pubic rami is thought to be highly suggestive of obturator hernia. CT is the optimal technique for the detection of obturator hernias with the key finding of a mass in the obturator foramen. The rarity and non-specific signs of these hernias contribute to late diagnosis and still high mortality (around 30%), but the early use of CT in the appropriate clinical setting should improve the prognosis.

Differential Diagnosis List: Obturator hernia

Final Diagnosis: Obturator hernia

References:

Keogan MT, Paulson EK. Gastrointestinal case of the day. Obturator hernia causing small bowel obstruction. *AJR* 1995; 165: 192-193. (PMID: [7785588](#))

Lo CY, Lorentz TG, Lau PW. Obturator hernia presenting as small bowel obstruction. *Am J. Surg* 1994; 167: 396-398. (PMID: [8179083](#))

Mercader VP, Fein DA, Gembala-Parsons RB et al. CT of an obturator hernia. *J Comput Assist Tomogr* 1995; 19: 330-332. (PMID: [7890870](#))

Yip AW, AhChong AK, Lam KH. Obturator hernia: a continuing diagnostic challenge. *Surgery* 1993; 113: 266-269. (PMID: [8441961](#))

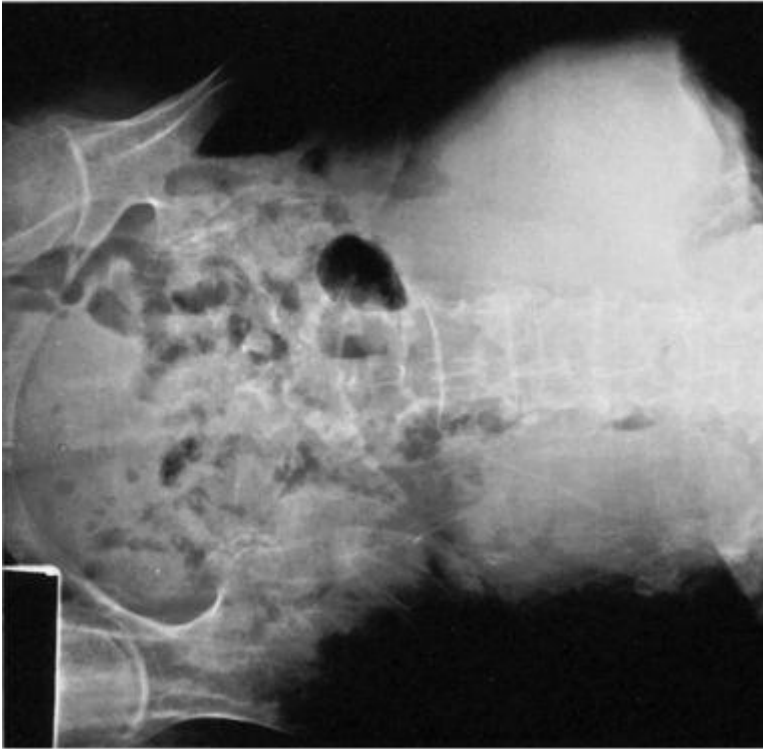
Figure 1

a



Description: The supine view shows scattered fluid levels in right-sided small bowel loops and prominent loop overlying the right superior pubic ramus. **Origin:**

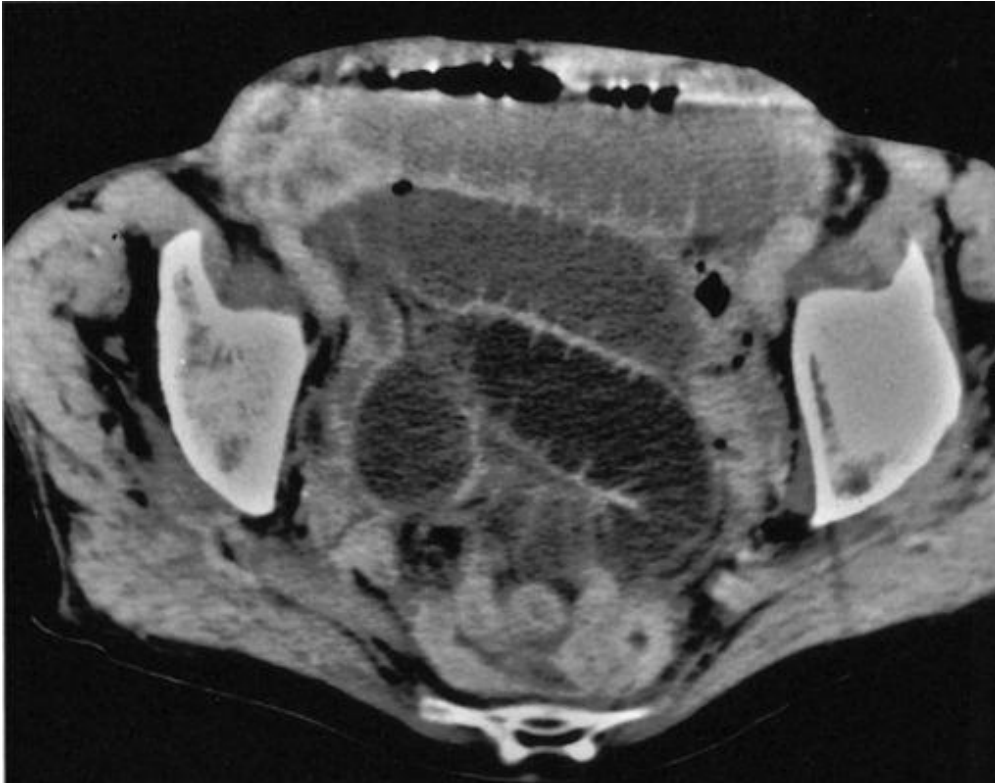
b



Description: The left decubitus view demonstrates as well the prominent loop overlying the right superior pubic ramus. **Origin:**

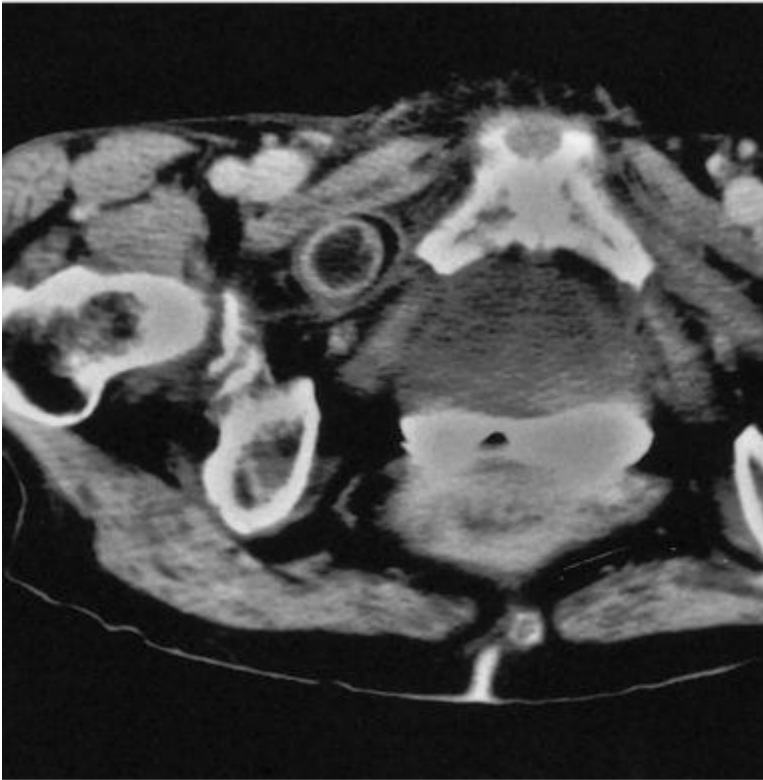
Figure 2

a



Description: Signs of small bowel obstruction with dilated and collapsed loops. **Origin:**

b



Description: Fluid-filled mass on the outside of the right obturator foramen. Radiological findings demonstrate an incarcerated obturator hernia causing small bowel obstruction confirmed, by surgery.

Origin: