A 95-year-old female patient presented with vomiting and constipation for the past 5 days. She suffered from right medial thigh pain for 2 days.

**Imaging Findings:**

X-ray abdomen revealed multiple air fluid levels within pelvis and left side of abdomen. Ultrasound abdomen revealed multiple dilated small bowel loops with to and fro movements. Maximum diameter of dilated bowel loops was 3.5 cm.

Plain and contrast enhanced CT abdomen-pelvis revealed herniation of small bowel loops in right obturator canal with proximal small bowel obstruction. There was normal mucosal enhancement of herniated small bowel loop.
Abdominal hernias are a common cause of small bowel obstructions. An obturator hernia is a rare type of pelvic hernias. It occurs through the obturator canal. The obturator canal is located between the obturator internus and externus muscles. It is 2 to 3 cm long and 1 cm wide. Obturator artery, vein and nerve are passing through it. [1] Obturator hernias most commonly occur in elderly women or patients with chronically raised intraabdominal pressure. In elderly women the obturator canal is more horizontal and wide because of relaxation of the pelvic muscles. Pregnancy also causes relaxation of the pelvic muscles. [2] There are four ‘classic’ features of an obturator hernia: (i) a palpable mass in the groin with the patient supine, and the thigh flexed, adducted and rotated laterally; (ii) intestinal obstruction; (iii) previous attacks of bowel obstruction resolving spontaneously; (iv) the Howship–Romberg sign. The Howship–Romberg sign is medial thigh and hip pain exacerbated by adduction and medial rotation of the thigh and relieved by thigh flexion. [3, 4] Obturator hernia is commonly obstructed and there is more risk of strangulation. [1] Small bowel loops are commonly herniated into the obturator canal. [2] Colon, appendix, omentum, fallopian tubes, meckel’s diverticulum are herniated into the obturator canal also.

The diagnosis of obturator hernia is difficult on X-ray and ultrasound. Cross sectional imaging (CT/MRI) is required for diagnosis. On CT, there is herniation of small bowel loops in the obturator canal. Features of small bowel obstruction and strangulation are seen in contrast enhanced CT. [1, 5] The treatment of obturator hernia is surgery and repair of hernial orifice by prosthetic mesh. [1, 3, 4]

Differential Diagnosis List: Right-sided obturator hernia with small bowel obstruction, Femoral hernia, Acetabular labral cyst

Final Diagnosis: Right-sided obturator hernia with small bowel obstruction

References:


Description: Axial image of contrast enhanced CT of the pelvis revealed a small bowel loop adjacent to the right-sided obturator foramen. Origin: Sanya Diagnostics, Rajkot Civil Hospital, Rajkot, Gujarat, India.
Description: Axial image of contrast enhanced CT of the pelvis revealed a small bowel loop in the right obturator canal between obturator internus and pectineus muscle. Origin: Sanya Diagnostics, Rajkot Civil Hospital, Rajkot, Gujarat, India.
Description: Axial image of contrast enhanced CT of the pelvis revealed a small bowel loop in the right obturator canal between obturator externus and pectineus muscle. Origin: Sanya Diagnostics, Rajkot Civil Hospital, Rajkot, Gujarat, India.
**Description:** Axial image of contrast enhanced CT of the pelvis revealed few dilated small bowel loops with air fluid level in the pelvis. **Origin:** Sanya Diagnostics, Rajkot Civil Hospital, Rajkot, Gujarat, India.
Description: Coronal image of contrast enhanced CT of abdomen and pelvis revealed herniation of a small bowel loop in the right obturator canal with changes of proximal small bowel obstruction. Origin: Sanya Diagnostics, Rajkot Civil Hospital, Rajkot, Gujarat, India.