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## Acute Intestinal Obstruction Secondary to Obturator Hernia- A Rare Case

Noor Elahi Pasha<sup>1\*</sup>, Anju Nagar<sup>1</sup>, R.S Meena<sup>1</sup>  
*1.Department of surgery, GMC Kota, Rajasthan) 324001*

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### ABSTRACT

Obturator hernia is a rare type of abdominal wall hernias, generally occur in thin and old women with chronic illness. They are associated with high rate of mortality and morbidity, diagnosis is often late as they don't have specific symptoms or findings and are a challenge to the surgeon. Mostly present with intestinal obstruction features. Early surgical intervention is usually delayed due to lack of preoperative clues for diagnosis. Our study shows a similar case of a thin, elderly female with obstructed obturator hernia and discusses the difficulties in diagnosis and management of such cases and reviews recent literature.

**Keywords:** obturator hernia, intestinal obstruction.

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\*Corresponding Author Email: [noor100bmc@gmail.com](mailto:noor100bmc@gmail.com)

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## INTRODUCTION

Obturator hernia is a rare type of abdominal wall hernia, in which a bowel segment protrudes through the obturator canal adjacent to the obturator vessels and nerve. Obturator canal is formed by union of the pubic bone and ischium. Those canal is covered by a membrane pierced at the medial and superior border by the obturator nerve and vessels. Weakening of the obturator membrane may result in enlargement of the canal and formation of a hernia sac, which may lead to intestinal obstruction and strangulation<sup>1</sup>. Obturator hernias present usually in elderly, thin and multiparous women with associated co morbidities like ascites, chronic obstructive pulmonary disease and chronic constipation. Diagnosis is often delayed as there are no specific symptoms or findings, and hence patient presents very late with intestinal obstruction or strangulation. All these factors lead to high morbidity and mortality rates in these cases<sup>2</sup>.

Herein, we describe a case of an elderly lady who presented to us with features of acute intestinal obstruction secondary to an obstructed obturator hernia.

## CASE REPORT:

A 69 year old, thin female presented to us with sudden onset of pain abdomen, vomiting, constipation/obstipation from 2 days. She denied history of any previous abdominal surgery but she is on irregular treatment for asthma. She is a mother of 5 children. On clinical examination she was conscious but restless, she was dehydrated and tachycardic. Her abdomen was distended with generalized tenderness and guarding, examination of hernial sites, per rectal and per vaginal examination were insignificant. Erect x-ray abdomen showed multiple air fluid levels, other laboratory test were in normal limits. An emergency ultrasound abdomen showed features suggesting intestinal obstruction. After necessary arrangements patient was taken for emergency surgical exploration. Under general anaesthesia, a midline laparotomy was done, generalized



**Figure 1 X-ray showing dilated bowel loops**



**Figure 2 Ileum entering the obturator foramen**



**Figure 3 Pointer showing obturator foramen**



**Figure 4 Loop of obstructed ileum**

Peritonitis was present, after a wash with saline, there was a small distal ileal loop seen herniating into the right obturator canal with obvious transition point and dilation of the proximal small bowel. On gentle reduction the portion of the gut was viable and subsequent defect was closed with simple prolene sutures. Post operative period was uneventful and the patient was

well and discharged on post operative day <sup>7</sup>.

## DISCUSSION:

An obturator hernia is a rare intra-abdominal hernia representing less than 1% of all hernias, and 1.6% of small bowel obstructions<sup>3</sup>. Obturator hernia was first described in 1724 by Ronsil. It occurs with the passing of the hernia sac down from the obturator canal<sup>2</sup>. The obturator canal is a 2-3cm long tunnel, which begins in the pelvis and ends at the obturator foramen bounded superiorly and laterally by the pubic bone, and inferiorly by the obturator membrane and muscles. It is a fat filled canal containing the obturator nerve, artery, and vein<sup>4</sup>. It is seen more commonly in old and thin multiparous women with large and big pelvic bones and with a relatively horizontal obturator channel. Chronic obstructive pulmonary diseases, malnutrition, chronic constipation and diseases that cause increased intra-abdominal pressure are among the other predisposing factors. Signs and symptoms of the obturator hernia are nonspecific. The most common finding is an acute obstruction of the bowel<sup>2</sup>. However pain along the medial side of the thigh exacerbated during extension, medial rotation and abduction of thigh is known to occur in 15-50% of cases described as Howship-Romberg sign. It is due to compression of the obturator nerve by hernial sac and its contents<sup>4</sup>. The most common content of the obturator hernial sac is the ileum with most belonging to Richter's type<sup>5</sup>. In our case also signs and symptoms very unspecific and only presentation was of bowel obstruction.

In recent literature it is shown that an obturator hernia is can be diagnosed on CT scan, which demonstrates the bowel loop within the obturator canal. Narrowing of the bowel segments at the hernial orifice identifies the transition point on CT scan with demonstration of signs of obstruction or herniation<sup>6</sup>. The management of obturator hernia is surgical. Abdominal, inguinal, retro pubic, obturator, and laparoscopic approaches have all been described in literature. Abdominal approach is preferred with low midline incision. For the repair of the obturator canal, primary suture technique, closing with the neighbour tissue and closure with mesh methods is preferred<sup>7-8</sup>. We did a primary suture with prolene in our case.

## CONCLUSION:

Emergency surgeons should be aware of obturator hernia as rare cause of intestinal obstruction especially in old and thin ladies. Detailed clinical history and examination help in suspecting this condition. CT scan is valuable for a preoperative and early diagnosis. Early diagnosis and prompt emergency intervention are keys to reduce mortality and morbidity.

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