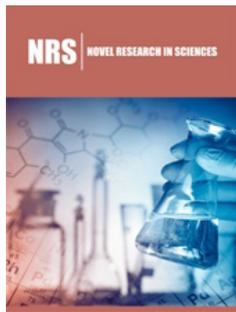


Obturator Hernia: A Rare Cause of Small Bowel Obstruction in A Patient with Metastatic Breast Cancer: Case Report

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Abstract

Obturator hernia is a rare type of pelvic hernia which generally occurs in elderly patients with accompanying diseases. It is associated with the highest morbidity and mortality of all abdominal wall hernias. Early surgical intervention is usually hindered because of clinical and radiological diagnostic difficulties.

Introduction

Obturator hernias account for 0.07–1% of all hernias and 0.2–1.6% of all cases of mechanical obstruction of the small bowel [1]. They have the highest mortality rate of all abdominal wall hernias at between 13% and 40% [2]. In Obturator hernia, bowel segment protrudes through the obturator foramen adjacent to the obturator vessels and nerve. The most common clinical symptom is strangulation combined with mechanical intestinal obstruction. This case report aimed to review the strangulated obturator hernia, in an elderly patient with diagnosed metastatic breast carcinoma, along with relevant literature review.

Case Presentation

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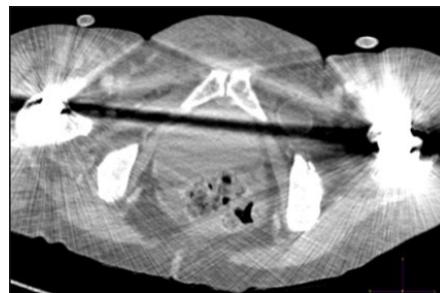


Figure 1: axial CT pelvic image showing the small bowel loop descending into the left obturator canal with bilateral hip prosthesis.



Figure 2: axial CT pelvis with arrow pointing towards bowel loop in the left obturator hernia

The patient, an 80 years old frail lady with a BMI of 19, already known to have metastatic breast carcinoma, presented with 3-4 days of colicky abdominal pain, nausea and vomiting. On examination her abdomen was mildly distended with tenderness in the lower abdomen, there was no evidence of inguinal or femoral hernia. CT scan performed suggested obstructed left obturator hernia with dilated bowel loops extending up to pelvis. Detailed study was hindered because of the metallic prosthesis in both hips Figure 1 & Figure 2.

Surgical exploration done as lower midline laparotomy. Dilated small bowel loops were identified along with strangulated left obturator hernia containing gangrenous small bowel loop with no free bowel contents. Reactionary fluid of approx. 700ml aspirated.

Bowel loop reduced from hernia, approximately 10 cm of small bowel resected. Side to side stapled anastomosis performed (Auto Suture150 Glover Ave. Norwalk, Connecticut 06850 GIA 75, 2/0 vicryl) used to close peritoneum over left obturator defect. The patient developed superficial surgical site infection of the midline wound which was dealt with and was discharged on the 6th post-operative day.

Discussion

Obturator hernia occurs through the obturator canal, which is approximately 2–3 cm long and 1 cm wide. Obturator hernias are much more common in elderly female and post-pregnancy patients owing to the greater width of the pelvis, larger obturator canal, and increased laxity of the pelvic tissues [2].

The symptoms are vague and are usually in the form of nausea and vomiting or other signs of bowel obstruction such as abdominal pain and a lack of bowel movement. The literature has shown that up to 80% of patients with obturator hernias have symptoms of bowel obstruction, which is often partial due to a Richter's herniation of the bowel into the obturator canal [1]. This tends to give rise to a clinical picture of intermittent bowel obstruction symptoms, which is an important factor to identify in the clinical history if accurate diagnosis is to be made.

Obturator hernia sacs often compress or irritate the obturator nerve running in the canal, giving rise to medial thigh pain called Howship-Romberg sign. In the literature, Howship-Romberg sign was reported to exist in 13–65% of the obturator hernia patients [3,4]. In our patient this sign was absent.

In the periods that CT was not used, the diagnosis of obturator hernia was generally made intra-operatively. With the developments of imaging techniques, although imaging methods such as herniography, ultrasonography, barium enema and magnetic resonance imaging for the diagnosis of this disease, with a diagnostic value of 78–100%, CT has become a gold standard [5].

In the literature it is reported that; the strangulation rate can increase from 25% to 100% in the case of delayed surgical treatment [6]. our case, although the diagnosis of obturator hernia

was made preoperatively by CT, as a result of the continuing complaints of the patient for 3-4 days, resection of the small bowel has become unavoidable. Because of the delay in the diagnosis, intestinal ischemia and high incidence of perforation, post-operative mortality rate of these patients was reported almost 70% [7].

Various surgical approaches have been described in the literature in the acute management of an obturator hernia. Abdominal, inguinal, retropubic, obturator, and laparoscopic approaches have all been described. The literature on laparoscopic repair of obturator hernias is quite sparse, probably due to a combination of the rarity of these cases and the relatively recent emergence of laparoscopic hernia surgery. Both trans-abdominal and extra-peritoneal laparoscopic approaches have been described in the literature [8-10].

As in our case, the majority of published evidence favours the abdominal approach, utilising a low midline incision. This method allows the surgeon to establish the diagnosis, avoid any obturator vessels, give better exposure of the obturator ring, and facilitate bowel resection if necessary. We used primary closure of the hernia defect. Simple closure of the hernia defect, with interrupted sutures or placement of a synthetic mesh are the preferred methods of herniorrhaphy as they are associated with the lowest complication rates.¹

Conclusion

Obturator hernia is a rare but significant cause of intestinal obstruction and carry significant morbidity and mortality especially in emaciated elderly woman. A high suspicion of diagnosis should be maintained, and early intervention should be considered. CT scan is valuable to establish preoperative diagnosis. Surgery either open or laproscopic, is the only treatment.

Ethical Approval

Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review on request.

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