

## Obturator Hernia: The Little Old Lady's Hernia, A Case Series

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**Abstract:** Obturator hernia is a very rare type of hernia requiring the attending physician to have a high level of suspicion to diagnose it pre-operatively. It is also called the little old lady's hernia because it is more common in thin elderly women. Here we present our experience with a case series of two obturator hernia that was seen in a span of three months. The presentation of this hernia and the management is discussed.

**Keywords:** obturator hernia, intestinal obstruction, diagnosis, diagnostic imaging, hernia repair

**INTRODUCTION**

Obturator hernia is a hernia that protrudes through the obturator canal that lies adjacent to the obturator nerve and vessels. The obturator canal is usually small and covered with fat. Obturator hernia is an extremely rare type of hernia, presenting only in 1% of cases [1]. Women are affected more commonly than men because they have wider pelvis and larger, more triangular obturator canal. Other risk factors for developing this hernia are old age, multiparity and chronically raised intra-abdominal pressure. It has been coined as little old lady's hernia because patients are typically old, thin, elderly ladies. Presumably these old ladies have lost the fat in the canal leading to the patent hernia orifice. Clinically obturator hernia is difficult to diagnose as the signs and symptoms are often non-specific. However, as the hernia orifice is small, entrapped bowel can have interrupted blood supply and this may lead to bowel ischaemia. High level of suspicion is needed to diagnose this condition as late diagnosis and management could lead to morbidity or mortality.

**CASE REPORT****Case 1**

82 years old Malay lady was admitted with 3 days history of vomiting, abdominal distension and loss of appetite. She was still able to pass flatus but there was no bowel opening for the last 7 days. Two weeks prior to this admission she was admitted to a private hospital with pneumonia and acute kidney injury secondary to dehydration. Premorbidly she has no known medical illness and she was ambulating independently. On examination, she was a thin and frail old lady who is also moderately dehydrated. Abdominal examination revealed a distended abdomen with visible bowel loops. There was no mass palpable in the abdomen or in the inguinal region. Digital rectal examination was unremarkable. The initial working diagnosis was intestinal obstruction secondary to colorectal tumour. She was rehydrated and an urgent contrast-enhanced computed tomography scan of the abdomen and pelvis was arranged. The scan revealed bowel obstruction secondary to strangulated right obturator hernia. A laparotomy was done and the finding was confirmed. Unfortunately the small bowel that was strangulated had already perforated and there was gross faecal contamination. Incidentally the left

obturator hernia orifice was also noted to be patent. Small bowel resection was done and a double barrel stoma was created. The obturator hernias were repaired with simple suturing using non-absorbable nylon suture. Post operatively she had a stormy recovery and she finally succumbed to sepsis on post operation day 10.

**Case 2**

A 70 years old Malay lady with no known premorbid condition was admitted with one-week history of generalized abdominal pain, absolute constipation and loss of appetite. She also had abdominal distension and vomiting 2 days prior to the admission. Clinically she was thin, frail and dehydrated. Her abdomen was distended but soft to palpate. Digital rectal examination was normal. A contrast-enhanced computed tomography scan of her abdomen and pelvis showed small bowel obstruction, suspicious of malignancy. An urgent laparotomy was done after adequate resuscitation and correction of electrolytes imbalance was done. Intra-operatively we found a portion of small bowel was trapped inside the left obturator canal. There was a small perforation on the small bowel. A wedge resection was done and the bowel repaired. There was also occult right obturator

hernia. The defects in both obturator canals were repaired with non-absorbable sutures. Post-operatively she also had a stormy recovery namely acute myocardial infarction, pneumonia, prolonged ileus and recurrent supraventricular tachycardias. She was discharged well on post-operative day 14.

## DISCUSSION

Obturator hernia is a diagnostic challenge because patients often present with vague and non-specific symptoms. Physical signs are absent most of the times. It is also very rare that a search on the Pubmed revealed that there are only 616 items found. Because of these issues, the condition is sometimes diagnosed late and this may lead to higher morbidity especially if bowel ischaemia is present.

Patients may present with nausea, vomiting and symptoms of intestinal obstruction. They may also complain of pain in the abdomen or in the groin. Physical examination may not reveal any findings, as in the current cases. Infrequently, there may be palpable lump in the groin. Howship-Romberg sign, which is pathognomonic of this hernia, may be present in some patients. It involves pain in the medial aspect of the thigh and knee, which is relieved by flexion of the thigh. The pain is due to the compression of the obturator nerve by the hernia in the obturator canal. This sign was not elicited in both patients' as the diagnosis was not suspected.

Imaging studies may be done to aid in the diagnosis. Ultrasonography examination may show the presence of intestinal obstruction but it may miss the presence of obturator hernia especially if it is small. It is also user dependent and the area of concern is not easily accessible by the ultrasound scan. Computed tomography (CT) scan may be the better imaging modality as its sensitivity may be as high as 90%[2]. The common CT finding is low-density mass between the obturator externus and the pectinues muscle. Huang reported 7 cases of obturator hernia that were diagnosed correctly by CT before surgery[3]. Kammori did a retrospective study comparing preoperative diagnostic accuracy before and after the CT scan was developed<sup>4</sup>. He concluded that "the use of pelvic CT in cases of suspected obturator hernia significantly enhances preoperative diagnostic accuracy and helps to decrease both intestinal resection rate and surgical mortality"[4]. Computed tomography scan successfully diagnosed obturator hernia in our first case but it failed to diagnose it in our second case.

Obturator hernia is commonly managed as emergency. Although conservative management of this hernia has been described[5], surgery is usually needed. Various methods of operative techniques are available. The most common approach is via midline laparotomy. This is favoured because via this method diagnosis can be established and bowel resection, if required, can be

facilitated. As obturator hernia is commonly present bilaterally[6], repair of the occult hernia site is also easily done via this approach. There are a variety of defect closure methods. The simplest method is using interrupted or continuous non-absorbable suture to close the defect as we had done in both our patients. Plugging the canal with omentum or mesh is also possible. Maharaj reported using a simple technique employing an autogenous peritoneal fold to avoid damage to the nearby neurovascular bundle[7]. Another approach that has been described by some authors is the Cheatle-Henry suprapubic, extraperitoneal approach. However it is difficult to resect bowel via this approach should bowel ischaemic encountered.

Laparoscopic approach to the obturator hernia is also feasible. Both total extraperitoneal (TEP)[8] and transabdominal preperitoneal (TAPP)[9] approaches have been described. Similar to the open technique, closure of the defect can be done using simple peritoneal closure, reconstruction using tissue flap, coverage with adjacent tissue or the insertion of mesh prosthesis. Recently, elective laparoscopic repair post reduction of the incarcerated obturator hernia in a patient without irreversible ischaemic change or perforation has also been described[10].

## CONCLUSION

Obturator hernia should be considered as differential diagnosis in a thin, elderly lady with intestinal obstruction.

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## REFERENCES

1. Lo CY, Lorentz TG, Lau PW. Obturator hernia presenting as small bowel obstruction. *Am J of Surg.* 1994;167:396-8.
2. Nasir BS, Zendejas B, Ali SM, Groenewald CB, Heller SF, Farley DR. Obturator hernia: the Mayo Clinic experience. *Hernia.* 2012;16:315-19.
3. Huang CL, Ng YB, Lin IL, Chen WP, Leung JH. Obturator hernia – usefulness of CT scan in diagnosis. *Chin J Radiol.* 2005;30:263-7.
4. Kammori M, Mafune KI, Hirashima T, Kawahara M, Hashimoto M, Ogawa T, Ohta H, Hashimoto H, Kaminishi M. Forty-three cases of obturator hernia. *The American journal of surgery.* 2004 Apr 30;187(4):549-52.
5. Leow JJ, How KY, Goh MH, Woon WWL, Low JK. Non-operative management of obturator hernia in an elderly female. *Hernia.* 2014;18(3):431-3.
6. Susmallian S, Ponomarenko O, Barnea R, Paran H. Obturator hernia as a frequent finding during laparoscopic pelvic exploration: A retrospective observational study. *Medicine.* 2016 Jul;95(27).

7. Maharaj D, Maharaj S, Young L, Ramdass M, Naraynsingh V. Obturator hernia repair—a new technique. *Hernia*. 2002 Apr 20;6(1):45-7.
8. Karashima R, Kimura M, Taura N, Shimokawa Y, Nishimura T, Baba H. Total extraperitoneal approach for incarcerated obturator hernia repair. *Hernia*. 2016 Jun 1;20(3):479-82.
9. Hayama S, Ohtaka K, Takahashi Y, Ichimura T, Senmaru N, Hirano S. Laparoscopic reduction and repair for incarcerated obturator hernia: comparison with open surgery. *Hernia*. 2015 Oct 1;19(5):809-14.
10. Kohga A, Kawabe A, Cao Y, Yajima K, Okumura T, Yamashita K, Isogaki J, Suzuki K. Elective laparoscopic repair after reduction might be useful strategy for incarcerated obturator hernia: a case report. *Journal of Surgical Case Reports*. 2017 Sep 1;2017(9).