

Nonmesh Laparoscopic Repair of Incarcerated Obturator Hernia

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Obturator hernia (OH) is uncommon. With its low incidence, diagnosis can be difficult with physical exams and laboratory data only. Imaging study with computer tomography significantly improved diagnosis accuracy and lower bowel resection and mortality rate. We present a rare case of a 70-year-old female with OH and managed by laparoscopic nonmesh repair method.

Key words: Laparoscopic surgery, case report, obturator hernia, nonmesh

INTRODUCTION

An obturator hernia (OH) is a rare disease usually happened in skinny female with multiparous. The incidence of OH is range from 0.04% to 1.5%.¹ The typical symptom is abdominal pain with intestinal obstruction. Some infrequent signs are The Howship–Romberg sign with is the inner thigh pain with internal rotation of the hip. The Hannington-Kiff sign which is the absent adductor reflex in the thigh with the presence of a positive patellar reflex. Diagnosis was difficult before the introduction of computer tomography.² Delay surgical intervention for incarcerated or strangulated small bowel causes a high mortality rate of OH.³ We present a rare case of recurrent incarcerated OH repaired by nonmesh laparoscopic method.

CASE REPORT

The ethics committee of the Tri-Service General Hospital approved this case report (TSGHIRB No: B202105119). This is a 70-year-old female with 1.55 m and 39.1 kg (body mass index 16.2 kg/m²). The patient was brought to emergency department due to severe intermittent abdominal and inner thigh pain for 1 day with associated symptom of nausea, vomiting and low grade fever. The patient had similar symptoms in July 2020 and reduced manually. This time, physical exam showed right lower abdomen tenderness with rebound pain and muscle guarding. Patient also complains of

inner thigh pain when internal rotation of the thigh. Laboratory work showed leukocytosis (12,000 μ L) and C-reactive protein (<0.10 mg/dL). Liver function test and renal function tests were within normal range. Computer tomography was arranged and showed incarcerated right OH with intestinal obstruction [Figure 1a and b] Emergent diagnostic laparoscopic surgery was arranged. A loop ileum was incarcerated in right obturator foramen with distension of small intestine and a 100 ml clear ascites was seen in the pelvis. The operation detailed was shown in Figure 2. A Jackson-Pratt drain was placed in the pelvic cavity. Patient started oral intake on the next day and discharged on 5th postoperation day uneventful.

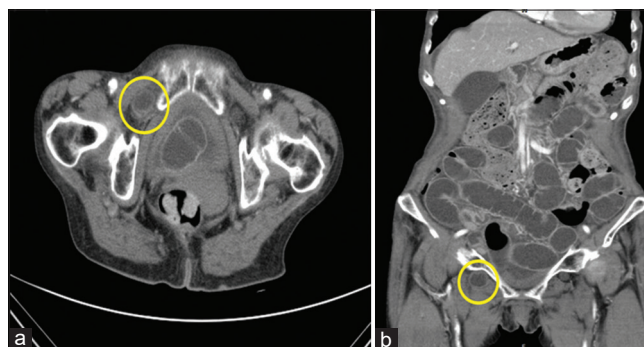


Figure 1: (a and b) Axial view and coronal view of abdominal computer tomography respectively showed incarcerated obturator hernia R't

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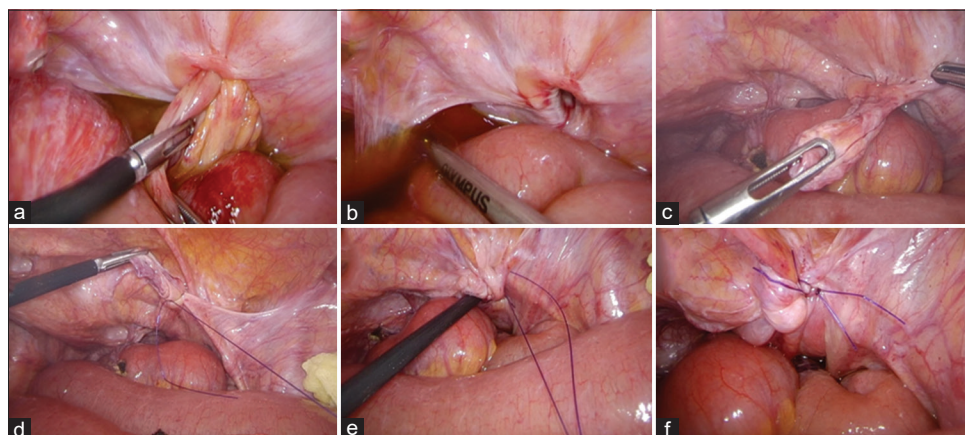


Figure 2: (a) Incarcerated small bowel was retracted by nontraumatic forceps, (b) A defect over right obturator foramen was identified, (c) Hernia sac was pulled out of obturator foramen, (d) Ligation of the base of hernia sac was done with 3-0 PDS, (e) Purse string suture was done at the base, hernia sac was invaginated into obturator foramen, (f) A second layer of purse string suture was done to secure the defect

DISCUSSION

OH is a rare pelvic hernia occurs in elderly female. Howship–Romberg sign can be present 15%–50% of the cases.⁴ The symptoms of OH can mimic a variety of disease, such as enteritis, irritable bowel syndrome, paralytic ileus, mechanical obstruction, or ischemic bowel disease.

Computer tomography imaging of bowel herniating through the obturator foramen and lying between the pectineus and obturator muscles is shown to be the best diagnostic clue. The rate of bowel resection and mortality rate decreased with early detection. Early computer tomography should be arranged in patients who are highly suspected of OH.

Surgical intervention is gold standard management for OH. With the improvement of minimal invasive surgery, laparoscopic approach seems effective and reduces pain and hospital stay for patients. Meshes with different types of material are used for hernia repair. Surgical field infection, surgical wound infection, and discomfort sensation are concerns by many surgeons especially for patients who needed to undergo bowel resection. There is no literatures compare mesh or nonmesh hernia repair specifically for OH. Mesh repair seems safe and feasible for hernia repair and become the current practice.⁵ Different surgical approaches are proposed for OH repair. Transabdominal preperitoneal approach or intraperitoneal Onlay Mesh is feasible in expert settings. In an emergency acute abdomen case usually need diagnostic laparoscopy to explore the obturator ring, pelvic floor and whole lower abdomen, especially in the case with risk of bowel ischemia. In addition, some literature stated higher surgical site infection and disruption for hernia repair using mesh in contaminated cases relative to clean cases.

The obturator stump could be repaired by using a primary suture which has an acceptable low recurrence rate and laparoscopic approach can avoid vessel and nerve damage under direct vision.

CONCLUSION

Laparoscopic approach without mesh is feasible and safe method for obturator hernia repair.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient has given her consent for her images and other clinical information to be reported in the journal. The patient understands that her name and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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