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CASE REPORT

TAPP Repair of an Obstructed Obturator Hernia

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ABSTRACT

Intestinal obstruction can be a result of diverse pathology depending upon the age of the patient. In the elderly, the most common cause appears to be malignancy or previous surgery. Inguinal hernia is another reason for acute intestinal obstruction, particularly in males. A rather rare cause of similar presentation in a female is obstructed obturator hernia. Due to its rarity and difficulty in diagnosis, most of the cases present late and, as a result, strangulation and necrosis of the bowel leads to high morbidity and mortality. We present a case of obstructed obturator hernia in a 80 years old female treated by laparoscopic transabdominal preperitoneal (TAPP) approach.

Keywords: Obturator hernia, Obstruction, Laparoscopic repair, TAPP.

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RESUMEN

La obstrucción intestinal puede ser un resultado de una patología diversa dependiendo de la edad del paciente. En los ancianos, la causa más común parece ser malignidad o cirugía previa. Hernia inguinal es otra de las razones para la obstrucción intestinal aguda especialmente en los hombres. Una causa bastante rara de presentación similar en una hembra está obstruido la hernia obturatriz. Debido a su rareza y la dificultad en el diagnóstico la mayoría de los casos se presentan tarde y, como resultado, la estrangulación y necrosis del intestino conduce a la alta morbilidad y mortalidad. Presentamos un caso de hernia obturatriz obstruida en un 80 años de edad las mujeres tratadas por vía laparoscópica trans peritoneal pre abdominal (TAPP).

Palabras claves: Hernia obturatriz, Obstrucción, Reparación laparoscópica TAPP.

INTRODUCTION

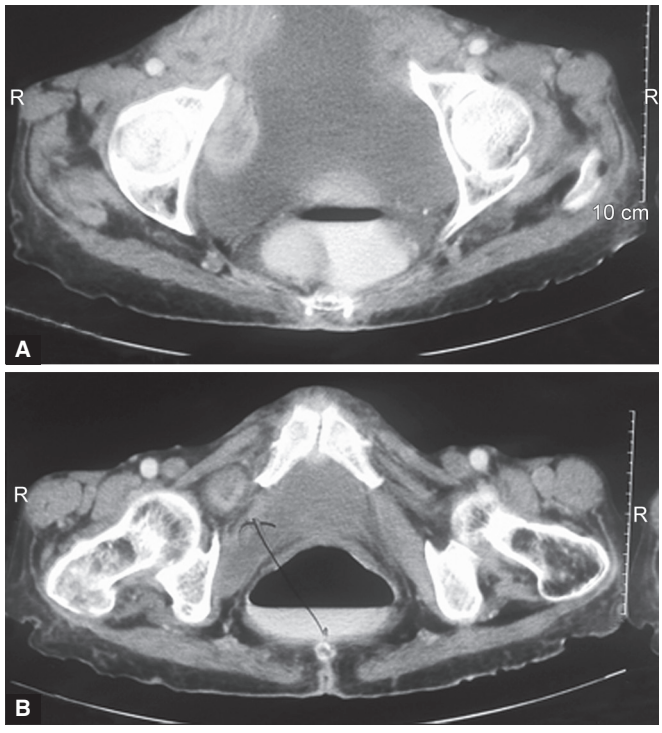
Obturator hernias (OH) account for a rare presentation to the surgeon. Their diagnosis is usually a challenge in both acute and elective settings. The incidence is higher in females with a ratio of 6:1, usually in the elderly group of age higher than 70 years who are emaciated and have had a number of deliveries leading to a relatively wider pelvis. Due to its rare presentation, difficulty in diagnosis and old age, it carries high mortality and morbidity. Till recently, only open surgery was the option available for its treatment. Recently, there have been few case reports in literature advocating the use of laparoscopy of the above treatment of the OH, with the first report coming from Germany.[1] This modality can be used, especially for nonacute presentations with the benefits of laparoscopic surgery, especially in decrease of hospital stay and faster return to normal activities. We present a case of 80 years old female who presented in ER in obstruction and was successfully treated with laparoscopic approach using TAPP.

CASE REPORT

An elderly women of 80, presented in the emergency with complaints of generalized pain abdomen, nausea and bilious vomiting of 5 days duration. She was a known asthmatic on inhalers and without any other comorbidities. There was no previous abdominal surgery. On general physical examination, she was hemodynamically stable but dehydrated and tachycardiac. Systemic examination revealed abdominal distention, tender all over without any liver dullness obliteration and absent bowel sounds. Hernial orifices were intact. No palpable masses or organomegaly was noted. The digital rectal examination was normal. Laboratory values were as follows with Hb of 11 gm/dl, TLC exceeding upper limit to 12400, DLC N79, L19, E02, urea 44 mg/dl, S. creatinine 1.2 mg/dl, normal liver enzymes and electrolytes. Abdominal radiographs showed multiple air fluid levels consistent with small bowel obstruction (Fig. 1).

Fig. 1: Plain X-ray abdomen preoperative

Ultrasound abdomen was suggestive of small bowel distention with absence of peristalsis. CECT abdomen (Figs 2A and B) revealed right-sided obstructed obturator hernia. Patient was taken up for laparoscopic repair, and intraoperative findings were collaborative with CT findings of right-sided obstructed obturator hernia with loop of small bowel (Fig. 3). Obstructed segment was relieved and transabdominal pre-peritoneal repair was done using 15″ × 10″ Johnson and Johnson Prolene mesh. Postoperative period was uneventful, and patient was discharged on postoperative day 2 (Fig. 4). Eight months postoperative follow-up patient is doing well with no recurrence or any other complaints.



Figs 2A and B: CT scan abdomen preoperative

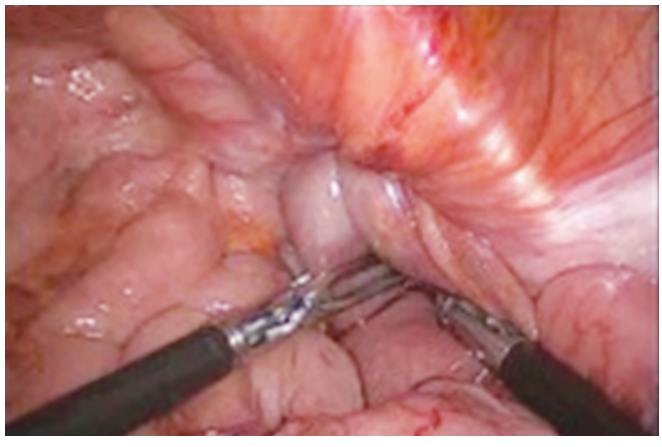


Fig. 3: Intraoperative photograph

Fig. 4: Patient on postoperative day 1

DISCUSSION

Obturator hernia (OH) formation was first described by Ronsil in 1724.[2] Although it is considered as a relatively rare hernia (0.07% of all hernias), it is the most common in the pelvic floor (obturator, sciatic and perineal). Three types of obturator hernias have been described based on the anatomical defect that is present. Type I OH occurs when preperitoneal fat and connective tissue (pilot tag) enter the pelvic orifice of the canal. Type II OH causes dimpling of the peritoneum over the canal, leading to the formation of an empty peritoneal sac. Type III OH occurs on entrance of an organ (bowel, ovary or bladder) that eventually fails to reduce spontaneously.

A partial or complete small bowel obstruction has historically been responsible for the diagnosis of most obturator hernias (88% of all OH).[3] The incidence of OH is significantly higher in females (6:1) and may be due to their larger foraminal diameter. Bowel obstructions from OH are usually in elderly (average age 70), thin patients. In fact, it has been called the 'little old lady hernia'. However, with the advent of computerized tomography (CT) and magnetic resonance imaging (MRI), these hernias are being diagnosed more accurately in younger patients before the onset of bowel obstruction.[3] Obturator hernias are three times more common on right side than on left side. Other risks factors associated with it are old age, female sex and conditions which raise intraabdominal pressure like ascites, chronic obstructive pulmonary disease and chronic constipation.[4] The acute presentation is that of intestinal obstruction or bowel ischemia and perforation, which is associated with the highest morbidity rate amongst all abdominal wall hernias ranging between 13 and 40%.[5] On the other hand, its presentation is that of a reducible lump in the medial upper thigh (or during pelvic or rectal examination) associated with the presence of the Howship-Romberg sign, where the patient complains of medial thigh and hip pain, exacerbated by the adduction and medial rotation of the thigh and relieved by the flexion. This is found in 15 to 50% of presentations and should raise the physicians' index of suspicion.[6] Various diagnostic modalities have been used and CECT appears to have superior sensitivity and specificity.[7]

The only treatment option for obturator hernia is surgery. Traditionally, exploratory laparotomy was used with a variety of operative approaches, including inguinal, retro public and transperitoneal approach[8,9] Methods of repair include simple suture closure, closure of the obturator with adjacent tissue and mesh placement.[10] Recently, laparoscopic approach has been used to tackle this problem.[11] Till date, 28 cases have been reported in the literature using laparoscopic approach. Out of these, 20 were done in elective cases and only eight cases were done in emergency setting. Among these eight emergency cases, six cases were reported to be done by TAPP while two cases were completed with TEP approach.[12] Laparoscopic surgery appears to be more promising considering early recovery and shorter hospital stay. The flip side with laparoscopic approach is that it is reserved for nonstrangulated hernias and has got a long learning curve.

CONCLUSION

Though rare but obturator hernia is to be kept in mind while dealing with a case of intestinal obstruction, especially in old emaciated lady. Detailed history and physical examination are very important though CECT can clinch the diagnosis. Early diagnosis and prompt treatment are the keys for the positive outcome.

REFERENCES

1. Tschudi J, Wagner M, Klaiber C. Laparoscopic operation of incarcerated obturator hernia with assisted intestinal resection. Chirurg 1993;64:827-828. [Pubmed]
2. Losanoff JE, Richman BW, Jones JW. Obturator hernia. J Am Coll Surg 2002;194(5):657-663.
3. Schmidt PH, Bull WJ, Jeffrey KM, Martindle RG. Typical versus atypical presentation of obturator hernia. Am Surg 2001;67: 191-195.
4. Chang SS, Shan YS, Lin YJ, et al. A review of obturator hernia and a proposed algorithm for its diagnosis and treatment. World J Surgery 2005;29:450-454.
5. Mantoo SK, Mak K, Tan TJ. Obturator hernia: diagnosis and treatment in the modern era. Singapore Med J 2009;50:866-870.
6. Yip AW, Ah Chong AK, Lam KH. Obturator hernia: a continuing diagnostic challenge. Surgery 1993;113:266-269.
7. Kammori M, Mafune K, HirashimaT, Kawahara M, Hashimoto M, Ogawa T. Forty-three cases of obturator hernia. Am J Surg 2004;187:549-552.
8. Shipkov CD, Uchikov AP, Grigoriadis E. The obturator obturator hernia: difficult to diagnose easy to repair. Hernia 2004;8: 155-157.
9. Shapiro K, Patel S, Choy C, et al. Total extraperitoneal repair of obturator hernia. Surg Endosc 2004;18:954-956.
10. Pandey R, Maqbool A, Jayachandaran N. Obturator hernia: a diagnostic challenge. Hernia 2009;13:97-99.
11. Yau KK, Siu WT, Fung KH, Li MK. Small bowel obstruction secondary to incarcerated obturator hernia. Am J Surg 2006; 192:207-208.
12. Deeba S, Purkayastha S, Darzi A, Zacharakis E. Obturator Hernias: a review of the laparoscopic approach. J Minimal Access Surg 2011;7(4):201-204.

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