CASE REPORT

INTESTINAL OBSTRUCTION DUE TO RARE INTERNAL SUPRA-VESICAL HERNIA

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Supravesical hernias are very rarely seen and reported as a possible cause of small bowel obstruction. The proper diagnosis of which is usually made intra-operatively as the preliminary diagnosis despite the availability of advanced radiological investigations which are not very helpful. There are two anatomical variants of supravesical hernias, of which internal one usually presents as small bowel obstruction. We present a case of 62 year old man, presented to us in emergency with three day history of absolute constipation, abdominal distention, and vomiting. On exploratory laparotomy, the terminal ileum loops were retrieved from the supra-vesical hernial defect by gentle traction and the defect was closed. Post-operative period remained uneventful. Supravesical hernias though very rare still can be a possible cause of small bowel obstruction. The diagnosis is usually made per operatively where the bowel loops are seen to be strangulated in the hernia defect.

Keywords: Supravesical hernia, intestinal obstruction, exploratory laparotomy
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INTRODUCTION

Small bowel obstruction due to the supravesical hernias is very rarely seen per-operatively. The first such reported case dates back to as early as 1804, described by Astely Cooper.[1] Till to date less than 100 cases have been reported. The anatomical variants of this type of hernias include internal and external supravesical hernias. We report a case of a 62 year old man who presented with the small bowel obstruction.

CASE REPORT

This is a case of 62 year old Asian man who presented to us in emergency with a three days history of absolute constipation with the complaints of generalized abdominal pain, abdominal distention, and profuse vomiting (8–9 episodes). General physical examination revealed that the patient was dehydrated and there was marked abdominal tenderness, distention and very sluggish bowel sounds. His blood pressure was 130/85 mmHg, pulse rate 80/min, respiratory rate 16/min, and body temperature 100 ºF. Per rectum examination revealed hard impacted stool. We therefore proceeded with the radiological investigations and blood profile.

His initial blood profile revealed Hb 15.7 g/dl, TLC 7.3×109 g/dl, bilirubin 2.1 mg/dl, urea 17 mg/dl, serum creatinine 0.9 mg/dl, Na 138 mmol/L, K 4.2 mmol/L, PT 17, and INR 1.5.

X-ray showed multiple air fluid levels and obstructed small bowel. A CT abdomen and pelvis with IV contrast was advised which revealed strangulated loop in the hypogastrium above the left deep inguinal ring with no lymph node enlargement as shown in figure-1.

Nasogastric tube was passed and we proceeded with exploratory laparotomy. A midline incision was given. There were dilated gut loops involving whole of the jejunum and proximal 2/3rd of the ileum with collapsed distal ileum. The terminal loops of ileum were seen stuck in the supravesical hernia defect.

The hernia sac was situated in the supravesical fossa above the bladder in the sagittal para-median direction. The hernia ring was approx. 2×3 cm defect in the supravesical fossa which was closed with continuous stiches. Prolene 2.0 suture is shown in figure-3. The pre-gangrenous incarcerated terminal ileum loops were explored cautiously and pulled back successfully with a very gentle traction. The involved segment did not require resection and end to end anastomosis as it was viable.

Our patient recovered uneventfully, with a very smooth postoperative course. His bowel sounds returned after 18 hours. He was discharged on the 9th postoperative day with the advice of a six months follow-up.

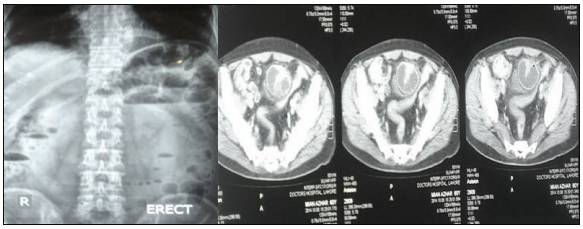

Figure-1: X-Ray and CT scan abdomen and pelvis with IV contrast findings

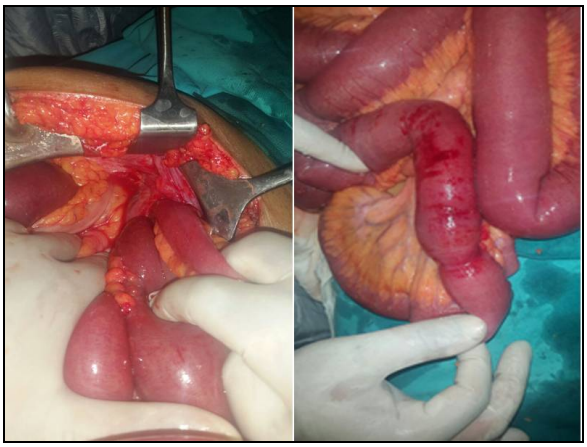

Figure-2: Pre-gangrenous loop of bowel released from hernia sac

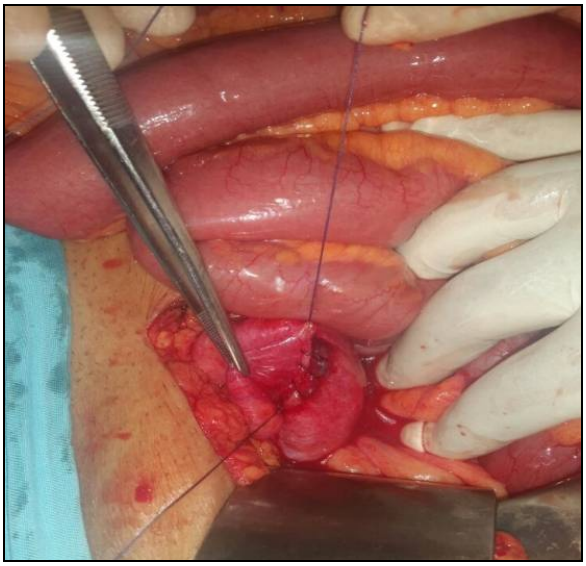

Figure-3: Hernial defect repaired

DISCUSSION

Supravesical hernia is very rarely seen. It was first reported by Astely Cooper in 1804.[1] It is the rare type of protrusion of a viscus through the supravesical fossa, which is described as a triangular area bound by the peritoneal reflection over the dome of the bladder and by the median and the medial umbilical folds. There are two anatomical variants of the supravesical hernia: internal and the external. External is due the laxity of the vesical pre-peritoneal tissue and the internal one with the growing hernia sac from back to front and above the bladder in a sagittal paramedian direction.[2,3] External supravesical hernia often occurs as direct inguinal hernia. Skandalakis *et al.* proposed the simpler terms "anterior supravesical", "right or left lateral supravesical", and "posterior supravesical" depending on whether the hernia passed in front of, beside, or behind the bladder, respectively.[4]

According to Iason, hernias tend to develop in three directions: the first portion is represented by the area of the peritoneum overlying the rectus muscle, these types of hernias present externally by pointing forward; the internal type of supravesical hernias can either present laterally by pointing in the lateral direction, or can arise in the inferomedial part which is represented by the peritoneal reflection which covers the space of Retzius. A hernia in this area tends to push downward into the prevesical space. Because of the rigid surrounding structures such hernias never protrude externally. Therefore an internal hernia in turn can be prevesical, para vesical, lateral or intravesical.[5]

Despite CT and MRI availability the preliminary diagnosis of supravesical hernia is difficult and usually made per-operatively, though the studies have shown little role of herniography and cystoscopy in some cases.[6-10]

Supravesical hernias are acquired hernias and are associated with the inguinal hernias. The treatment is the release of the involved segment by gentle traction followed by the closure of the hernia defect with either the continuous or interrupted stiches with non-absorbable sutures is sufficient.[11, 12] In our case we closed the defect with continuous stiches and after ensuring the viability of the involved segment which was imbricated as it didn't require end to end anastomosis.

CONCLUSION

Despite the availability of the advanced radiological investigation the diagnosis of small bowel obstruction due to the supravesical hernia is made per-operatively due to the rarity of the condition though CT findings have been reported very rarely in the case of internal variant but not external supravesical hernia. Decision of either imbricating the involved segment or end to end anastomosis can only be made vigilantly per-operatively according to the viability of the involved segment.

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