International Surgery Journal
Rambhia SU et al. Int Surg J. 2017 Jan;4(1):427-428
http://www.ijsurgery.com
pISSN 2349-3305 | eISSN 2349-2902

DOI: http://dx.doi.org/10.18203/2349-2902.isj20164485

Case Report

Internal hernia - a rare cause of small bowel obstruction: a case report

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Received: 10 October 2016
Revised: 12 October 2016
Accepted: 09 November 2016

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ABSTRACT

Internal hernia means a protrusion into pouches or openings in the peritoneum or mesentry in contrast to the hernias through defects in the retaining walls of the abdomen. Internal hernias are of many varieties with different classifications and can be congenital or acquired post-surgery. We present a case of a 55 year old female who presented with symptoms of acute small bowel obstruction with previous history of exploratory laparotomy 20 years back for reasons not known to her. Routine blood investigations, chest and abdomen skiagram and a CECT abdomen were performed (which gave no significant clue to diagnosis) and after a failed conservative trial patient was taken for exploration. Intra operatively a gangrenous loop of small bowel was found herniating through a band between the small bowel mesentry and the sigmoid mesocolon, forming a closed loop obstruction. Resection anastomosis of the gangrenous segment along with band transection was performed. The post-operative course was uneventful.
Internal herniation as a cause of bowel obstruction should always be kept in mind as a differential.

Keywords: Gangrenous bowel, Internal hernia, Small bowel obstruction

INTRODUCTION

An internal hernia, congenital or acquired, is a protrusion of viscera through an opening in the peritoneum or mesentery.[1] Internal hernias are a rare cause of intestinal obstruction, with para-duodenal hernias being the most common type of congenital internal hernia.[2]

Symptoms associated with internal hernias are generally nonspecific; therefore, diagnosis is most commonly due to incidental findings on imaging or at laparotomy/laparoscopy.[3]

Acquired internal hernias are more common after surgery for obesity.[4] In this case report we discuss about a case of small bowel obstruction due to internal herniation probably acquired as a result of previous abdominal surgery.

CASE REPORT

A 55 year old lady presented to the hospital with h/o abdominal pain and vomiting for 2 days. There was no previous history of such complaints. There was no history of any co-morbidities and patient gave history of a previous abdominal surgery with a midline laparotomy scar, the reason for surgery being unknown to the patient.

On examination the patient was found to have tachycardia with other vital parameters normal. Blood count revealed leucocytosis and X-ray abdomen erect showed signs of small bowel obstruction. A case of adhesive bowel obstruction was thought to be the likely cause and patient was given conservative line of treatment initially. A CECT abdomen was ordered after her abdominal sings worsened in the form of increased tenderness, but the CT report didn't give much clue to the diagnosis. Based on the abdominal signs and increasing

white cell count a decision to explore the patient was taken.

During laparotomy a loop of gangrenous small bowel was found with proximal bowel dilatation and a band of fat between the small bowel mesentery and sigmoid mesocolon through which the bowel had herniated and had caused a closed loop obstruction. (Figure 1 Herniation of a small bowel loop through acquired defect causing closed loop obstruction).

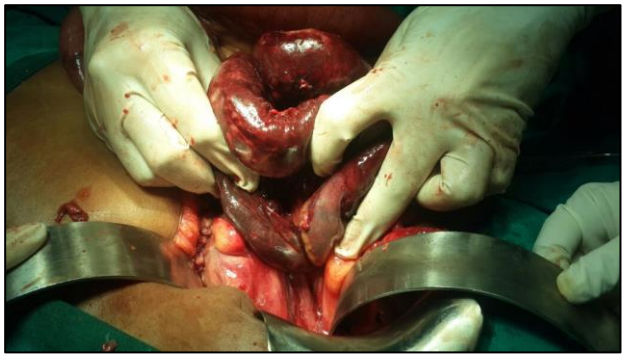

Figure 1: Herniation of a small bowel loop through acquired defect causing closed loop obstruction.

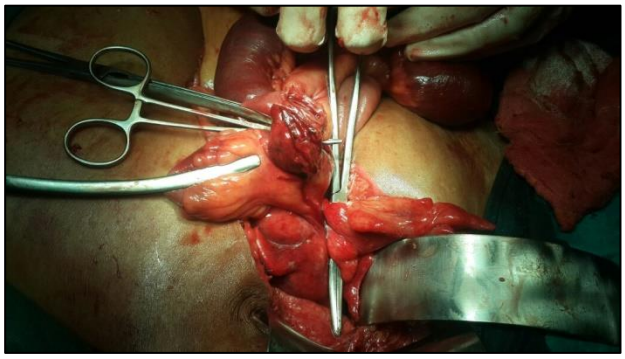

Figure 2: Resected small bowel segment and the defect through which the bowel herniated.

The gangrenous bowel was resected and the band transected to prevent future herniation. Ileoileal anastomosis was performed without a stoma. (Figure 2 Resected small bowel segment and the defect through which the bowel herniated).

Post-operative course of the patient was uneventful with early ambulation, orals from post-operative day 4; discharge at day 7 and suture removal at day 13. Follow up at 6 weeks post-surgery was normal.

DISCUSSION

Internal hernia are a rare cause of small bowel obstruction with para-duodenal hernias being the most common congenital cause and Bariatric surgeries resulting in the most common acquired causes.[3,4] Pre-operative diagnosis of internal hernia both clinically and with radiology is difficult in the setting of acute small bowel obstruction.[5,6] The management of an internal hernia like in any case of acute small bowel obstruction requires pre-op optimization with fluid and electrolyte balance, nasogastric tube decompression, urinary catheter followed by laparotomy using a midline vertical incision. Depending on the status of the bowel the type of surgery is decided on table. Gangrenous bowel will need resection anastomosis and defect closure whereas a simple obstruction will only require reduction of the contents and closure of the defect with or without a mesh.[3] Laparoscopic repair can also be tried in certain cases of internal hernia where a pre-operative diagnosis has been achieved.[7]

CONCLUSION

Internal hernia as a cause of small bowel obstruction should always be kept in mind and timely intervention should be carried out to prevent morbidity and mortality associated with these cases.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

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Cite this article as: Rambhia SU, Madhukar P. Internal hernia - a rare cause of small bowel obstruction: a case report. Int Surg J 2017;4:427-8.