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Transmesenteric Hernia Causing Intestinal Obstruction in Adult Male: A Rare Case Report

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Abstract: *Internal hernia is a rare cause of small bowel obstruction. A 45 year old male presented with acute intestinal obstruction for 2 days. On exploratory laparotomy, a mesenteric defect of 7*8 cm was present 90 cm distal to duodeno- jejunal junction with small bowel herniating through that defect. The part of bowel herniating was gangrenous. Resection of the gangrenous segment was done and end to side anastomosis between jejunum and transverse colon was done. Post-operatively the patient remained stable and was discharged under all satisfactory conditions. Internal hernia is one of the rare causes of small bowel obstruction. It is reported that 0.2–0.9% of patients of small bowel obstruction have internal hernia. A high index of suspicion for congenital mesenteric defects is warranted in patients who present with features of intestinal obstruction in the absence of obvious external hernia or previous abdominal surgery.*

Keywords: *Internal Hernia, Acute intestinal obstruction.*

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I. Introduction

Internal hernia is a rare cause of small bowel obstruction [1]. Transmesentric hernia is a type of internal hernia [2]. These can be congenital or acquired. Patients can present with small bowel obstruction at any age. Congenital hernias usually presents in childhood but may rarely present in adults. We present a case report of 45-year old male patient who presented with features of small bowel obstruction.

II. Case Report

A 45-year old male presented to us in emergency department with complaints of pain abdomen for 4 days, non-passage of stool and flatus for 2 days and bilious vomiting for 2 days. Pain was colicky in nature in periumbilical region, not radiating or shifting to any other site. There was no history of similar complaints in the past. Patient was non diabetic and non hypertensive. There was no history of tuberculosis or contact of tuberculosis. There was no history of previous surgery. No history of similar complaints present in family or any malignancy. Patient was non smoker, non alcoholic and occasional non-vegetarian by diet.

On examination, patient was calm conscious and co-operative and well oriented to time, place and person. His pulse rate was 92/min, blood pressure was 126/82 mm of Hg and respiratory rate was 18/min. There was no pallor, icterus, cyanosis, clubbing, pedal edema, lymphadenopathy and JVP was not raised. Chest was bilaterally clear with no added sounds. On per abdominal examination, distention was presentwith generalized tenderness and guarding. Bowel sounds were absent. On per rectal examination, ballooning of rectum was present.

On investigations, his hemoglobin was 12.4g/dL, TLC was 9,500/cumm, DLC – 65,32,2,1, and platelets count was 2.4 lacs/microliter. His blood urea was 56mg/dL, random blood sugar- 106mg/dL, serum sodium- 135mEq/dL and serum potassium- 3.2mEq/dL. Urine complete examination did not reveal any significant abnormality.

On Chest X-ray, bilateral lung fields were clear, bilateral domes of diaphragm were normal and there was no free air under diaphragm. On abdominal X-ray, multiple air fluid levels (fig.1) were present withmultiple dilated bowel loops (fig.2). On USG abdomen, there was no free fluid in peritoneal cavity.

A decision was made to operate the patient. Pre-anaesthetic checkup was done and exploratory laparotomy was done. Dilated and gangrenous bowel loops (fig.3) were present in abdominal cavity. On further exploration, a large mesenteric defect (fig.4 & 5) of size 8*7 cm was present nearly 90cm from the duodeno-jejunal junction and the bowel loops were herniating through that defect and were strangulated. The gangrenous 150 cm of small bowel about 3 cm proximal to ileo-caecal junction was resected and end-to-side anastomosis of small bowel with transverse colon was done around 90cm distal to DJ junction. The distal stump of small bowel was primarily closed. A drain was put in pelvis. Patient was then shifted to surgical ward.

In post-operative period patient remained stable. He was kept nil oral for 5 days. On 6th post-operative day, ryle's tube was taken out and patients was allowed sips orally. The oral intake of patient was increased as he tolerated it and drain was taken out on 7th post-operative day. He was discharged under all satisfactory conditions on 8th post-operative day.

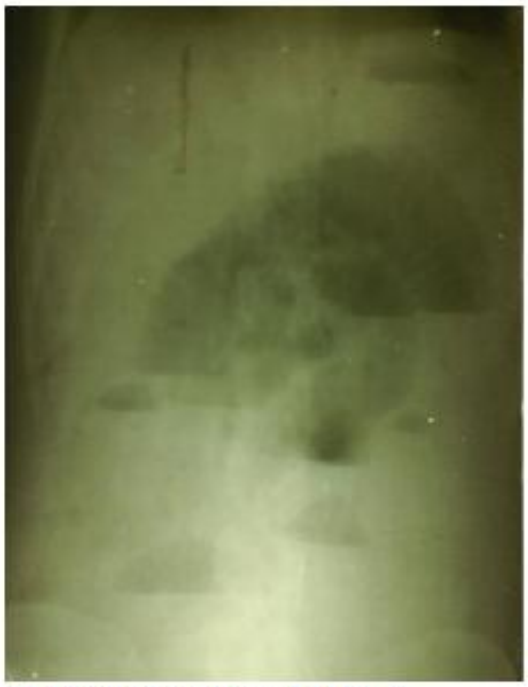

Fig.1 X-ray showing air-fluid levels

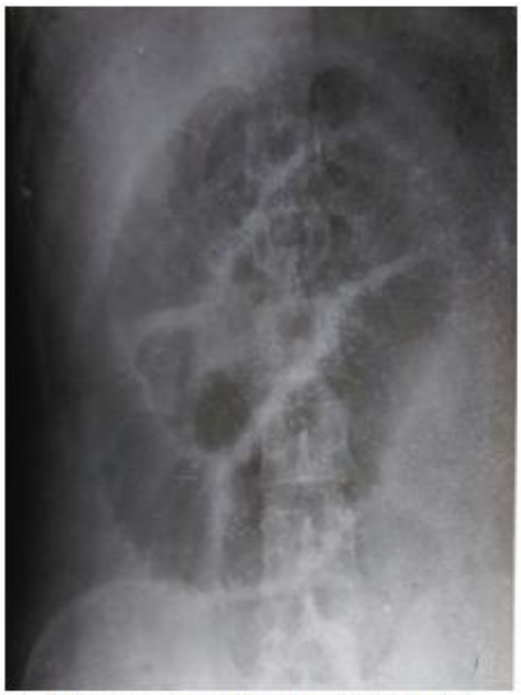

fig.2 X-ray showing dilated bowel loops

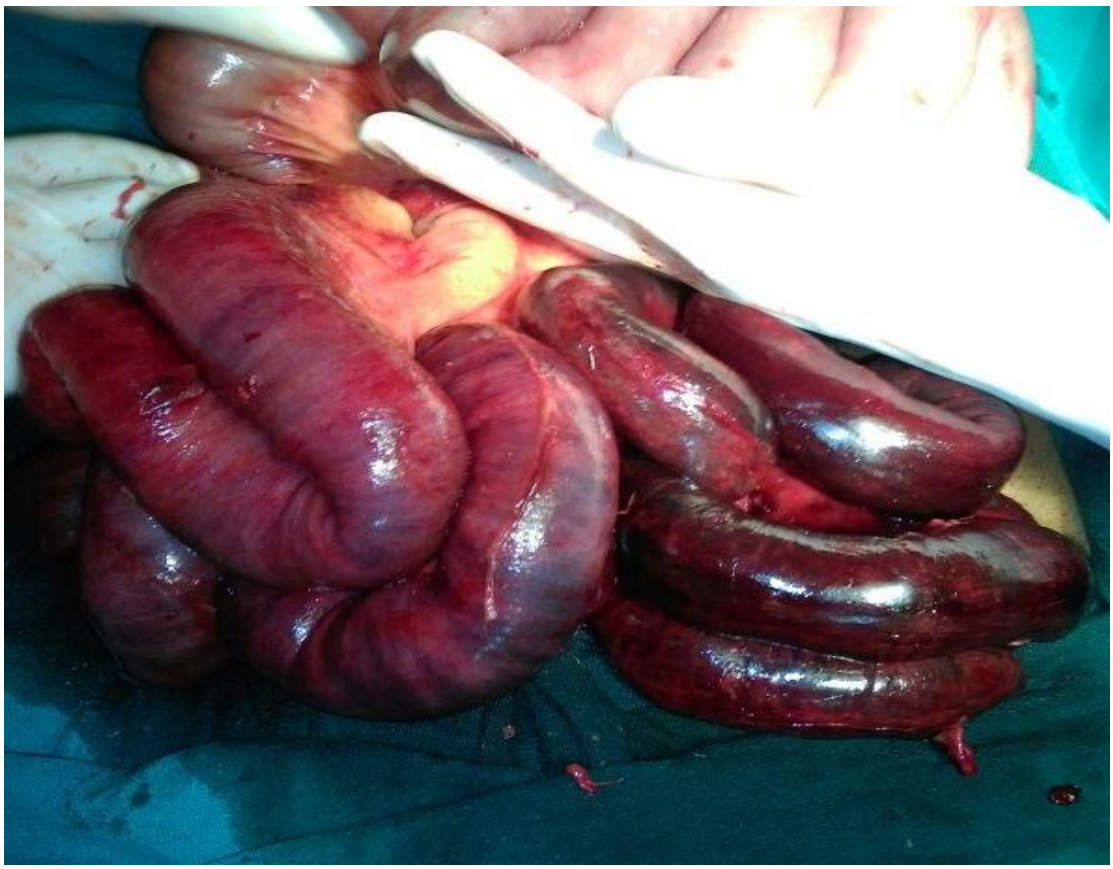

Fig. 3 gangrenous bowel loops

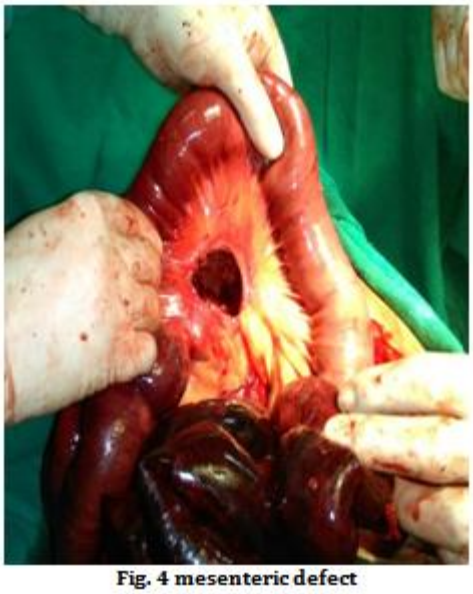

Fig. 4 mesenteric defect

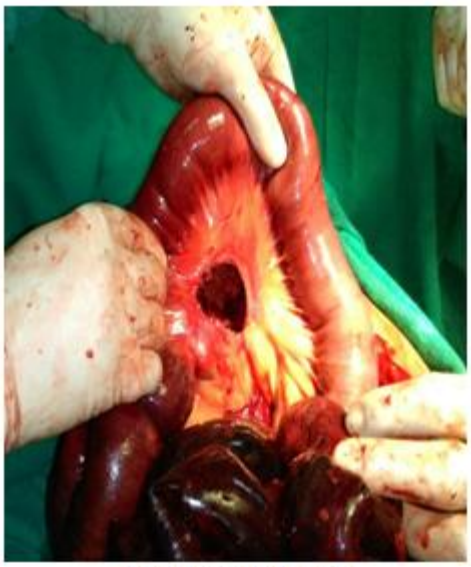

fig. 5 mesenteric defect

III. Discussion

Internal hernia is one of the rare causes of small bowel obstruction. It is reported that 0.2–0.9% of patients of small bowel obstruction have internal hernia [3,4,5]. A transmesenteric hernia is an unusual type of internal hernia. Transmesenteric hernia occurs more frequently after previous surgery in which mesentery has been incised but not closed after gastro-intestinal reconstruction. On the other hand, a congenital mesenteric defect is very rare but can potentially cause internal hernia with consequent incarceration or strangulation of the small intestine [5].

Adult congenital mesenteric defect causing small bowel obstruction has been documented in only a few reports: five reports describing six patients in the past [3,4,6-8]. Only one patient was a male and six patients were female. The age of patients ranged from 18 to 38 years. [5]

A high index of suspicion for congenital mesenteric defects is warranted in patients who present with features of intestinal obstruction in the absence of obvious external hernia or previous abdominal surgery. Operative management consists of timely laparotomy, reduction of hernia, resection/ anastomosis of devitalized bowel and closure of the defect. [4,9]

IV. Conclusion

Diagnosis requires high index of suspicion, urgent surgical exploration and correction of the mesenteric defect.When mesenteric defect is incidentally detected during unrelated abdominal surgery, the defect should be closed to prevent it from causing internal hernia in future.

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