ABSTRACT
Internal hernia involving the sigmoid mesocolon is extremely rare cause of intestinal obstruction. It is associated with early development of strangulation and gangrene. Therefore, high suspicion is necessary in the evaluation of such cases in order to prevent the related high morbidity and mortality. We present a case of an internal hernia occurring through a congenital defect in sigmoid mesocolon leading to strangulation of small bowel.

Keywords: Internal hernia, Strangulated hernia, Transmesosigmoid hernia.

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INTRODUCTION
An internal hernia is defined as a protrusion of a viscous through a normal or abnormal pouch or opening in the abdominal cavity. Internal hernia through the sigmoid mesocolon is a rare clinical entity and accounts for approximately 5% of all internal hernias.¹ Transmesosigmoid hernia can be either acquired through a trauma or surgical procedure (iatrogenic internal abdominal herniations) or constitutional or related to congenital peritoneal defects.² In contrast to other types of sigmoid mesocolon hernias, transmesosigmoid hernia is usually associated with a significantly long intestinal loop herniation through the defect in mesocolon and have tendency to strangulate early.³⁴ Prompt surgical intervention is thus generally warranted in patients with suspected transmesosigmoid hernia.

DISCUSSION
Congenital internal hernias of the sigmoid mesentry are divided into three categories: intersigmoid, intramesosigmoid and transmesosigmoid.¹ Transmesosigmoid hernias occur when a loop of small bowel passes through a defect in the sigmoid mesentery. This type of hernia involves the two layers of the mesentery and does not have a leukocytosis of 13,200/cu mm, serum creatinine 1.1 mg/dl and serum sodium 134 mg/dl, potassium 2.1 mg/dl. On plain X-ray abdomen standing, there were dilated small bowel loops with multiple air fluid levels with no gas under diaphragm. On abdominal ultrasonography, free fluid in peritoneal cavity with dilated bowel loops was found. The patient was resuscitated with intravenous fluids and nasogastric tube was inserted. Thereafter, decision was made to perform emergency exploratory laparotomy in view of possibility of bowel obstruction with septicemia shock. Intraoperative finding was of a gangrenous small bowel loop of 50 cm in length and 10 cm proximal to ileocecal junction herniating through an abnormal defect of size 4 × 2 cm in sigmoid mesocolon (Fig. 1). Both proximal and distal bowel loops were dilated and edematous with presence of hemorrhagic free fluid in peritoneal cavity. After manual reduction of hernia, gangrenous bowel loop (Fig. 2) was resected followed by end to end anastomosis. Mesosigmoid defect (Fig. 3) was closed. Patient was kept on ventilator support for initial 24 hours and later on patient recovered smoothly without any complication.

CASE REPORT
A 63-year-old male patient presented acutely with the last day history of abdominal pain for the last day with vomiting and abdominal distention. He had no previous history of abdominal surgery. On clinical examination, patient was dehydrated, pulse rate was 110/min (feeble), blood pressure 80/60 mm Hg, respiratory rate 36/min and decreased urine output of 15 ml/hr. Abdominal examination revealed gross distention, generalized tenderness, guarding, bowel sounds were absent and digital rectal examination was insignificant. Laboratory investigations were; hemoglobin: 11.1 gm/dl,

Fig. 1: Intraoperative finding of sigmoid mesocolon
hernia can be difficult, radiological investigations such as computed tomography (CT) of the abdomen can be helpful. The CT appearances indicative of internal herniation consist of medial displacement of the colon by herniated intestinal loops and bird-beak appearances of the afferent and efferent intestinal segments. It has been suggested that such a bird-beak appearance in the pelvis that is centered toward the medial side in a patient with intestinal obstruction is highly suggestive of a transmesosigmoid hernia. The management of internal hernias requires reduction of the hernia and repair of the defect by either a laparoscopic or open approach.

CONCLUSION

The diagnosis of internal hernia remains a challenge for surgeons. Even though an internal hernia occurring through a defect in sigmoid mesocolon is very rare, it must be included in the differential diagnosis of patients with intestinal obstruction. Early suspicion and diagnosis followed by urgent surgical exploration is necessary to avert related complications.

REFERENCES


ABOUT THE AUTHORS

Divish Saxena (Corresponding Author)
Assistant Professor, Department of Surgery, NKP Salve Institute of Medical Sciences and Research Center, Nagpur, Maharashtra, India
Phone: 9923686675, e-mail: drdivishsaxena@yahoo.co.in
Strangulated Transmesosigmoid Hernia: A Rare Cause of Acute Abdomen

Yunus Shah
Associate Professor, Department of Surgery, NKP Salve Institute of Medical Sciences and Research Center, Nagpur, Maharashtra, India

Diwakar Sahu
Assistant Professor, Department of Surgery, NKP Salve Institute of Medical Sciences and Research Center, Nagpur, Maharashtra, India

Rajiv Sonarkar
Assistant Professor, Department of Surgery, NKP Salve Institute of Medical Sciences and Research Center, Nagpur, Maharashtra, India

Mrinal Tandon
Resident, Department of Surgery, NKP Salve Institute of Medical Sciences and Research Center, Nagpur, Maharashtra, India