

DESCENDING COLON VOLVULUS: A CASE REPORT AND REVIEW OF LITERATURE

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ABSTRACT

Volvulus is an important cause of intestinal obstruction. It is most commonly encountered in the region of sigmoid colon and caecum. Descending colon volvulus is an extremely rare entity. This is a case of a 28 year old male who presented with signs and symptoms suggestive of large bowel obstruction. Descending colon volvulus was encountered on exploration for which colostomy stoma was formed after resection of the redundant colon.

Keywords: Colonic Volvulus, gangrene, intestinal obstruction, stoma, anastomosis.

INTRODUCTION

Descending colon volvulus is a very rare entity and only one such case has been reported yet in literature. High index of suspicion upon history and examination along with CT scan showing the characteristic 'whirl sign' is the key to diagnosis. Prompt surgical exploration and resection of the redundant colon is desirable in order to prevent complications.

CASE REPORT

A 28 year old man presented to the emergency department with a 24 hours history of severe colicky abdominal pain, more pronounced in the left hemi abdomen, associated with constipation and a single episode of vomiting. Past history was significant for an appendectomy 6 years ago.

On examination, his pulse was 108 beats/minute and blood pressure was 110/65 mmHg. Rest of the general physical examination was unremarkable. abdominal examination revealed gross distention with visible gut loops and mild tenderness in left upper abdomen. Upon digital rectal examination the rectum was empty. All baseline investigations were within normal limits. X-ray of the abdomen revealed grossly dilated small and large gut loops up to the splenic flexure [fig.1]. Diagnosis of large gut mechanical obstruction was made and exploration planned.

Midline laprotomy was performed and volvulus of descending colon through 180° in its middle

portion was encountered. Upon untwisting, its mesentery was excessively long and mobile. The descending colon was found to be intraperitoneal. Proximal gut was distended and distally it was collapsed. Although, gut was viable, decision was made to resect the excess colon to prevent recurrence. After resection, both remaining ends were exteriorized as colostomy stomas. The resected specimen was sent for histopathology and the abdomen was closed over a drain. Patient made an uneventful recovery and was discharged on day 5. Histopathology was reported as normal colonic segment with normal ganglia.



Fig 1: X-ray abdomen supine, showing distended Colon upto splenic flexure.



Fig 2: Descending colon with persistent long mesocolon.

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DISCUSSION

Volvulus is the twisting or axial rotation of a portion of bowel about its mesentery.¹ Mainly the caecal and sigmoid regions are involved in volvulus and account for 8% of intestinal obstruction.² Rarely splenic flexure is involved in the disease process due to congenital absence or surgical division of fixation structures i.e., phrenico-colic, gastro-colic and spleno-colic ligaments.³ Descending colon volvulus is extremely rare and only one such case has been reported in literature yet.⁴ Main presenting features are those of intestinal obstruction and if the condition is not addressed promptly it leads to colonic wall necrosis, gangrene and ultimately perforation.⁵

Presentation and management is same as that of sigmoid volvulus. Diagnostic tools are; detailed history and examination, high index of suspicion and characteristic whirl sign in the left upper abdomen on CT abdomen.⁶

Prompt surgical exploration is mandatory in order to prevent gut from strangulation.^{6,7} Resection of the involved colonic segment is undertaken as conservative procedures are associated with higher incidence of recurrence.^{8,9}

Our patient had tight Volvulus and colon was heavily loaded with fecal matter so resection of the redundant colon was done and viable colonic ends were brought to the surface as double barrel colostomy stoma.

CONCLUSION

In summary, descending colon volvulus occurs due to persistent long mesocolon. High index of suspicion, detailed history, thorough examination and characteristic 'whirl sign' upon CT imaging can be decisive. Prompt surgical exploration with resection of the redundant colonic segment and colostomy stoma formation is the safest treatment option.

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