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A RARE CASE OF VOLVULUS OF TRANSVERSE COLON

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Abstract : Introduction Transverse colon volvulus is an uncommon acute surgical presentation associated with a higher rate of mortality than volvulae at other locations along the colon. Surgical resection or correction is the only treatment, and various methods have been described in case report literature to relieve the volvulus and prevent recurrence.Case presentation A 40 year old female presented with acute colonic obstruction in the emergency ward and on emergency laparotomy she was found to have transverse colon volvulus and patient was treated with resection of transverse colon and enterostomy. Conclusions Volvulus of the transverse colon is rare but must form part of the clinician's differential diagnosis when encountering a patient with suspected bowel obstruction, especially in younger patients with no previous surgical history. Laparotomy is the treatment of choice and the technique of either using the greater omentum as a fixing point for redundant bowel to the lateral abdominal wall or resecting the transverse colon with primary anastamosis or enterostomy are options for surgical management of this condition

Keyword :VOLVULUS,TRANSVERSE COLON

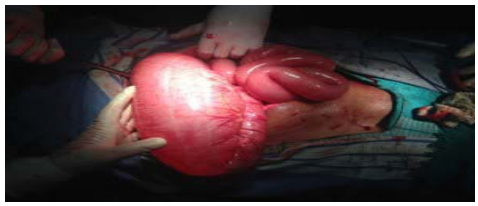
INTRODUCTION

A volvulus is a twisting or axial rotation of a portion of bowel about its mesentery. Volvulus may be primary or secondary. A secondary volvulus is more common variety which occurs due to actual rotation of a piece of bowel around an acquired adhesion or stoma3. Any portion of large bowel can torse if that segment is attached to a long and floppy mesentery that is fixed to the retro peritoneum by a narrow base of origin. The condition most commonly affects the colon4.Colonic volvulus accounts for less than 5% of all cases of intestinal obstruction1.It usually occurs in the sigmoid colon and transverse colon volvulus (TCV) is probably the rarest form of colonic volvulus, accounting for less than 11% of all cases of colonic volvulus, but with the highest mortality . 1,2

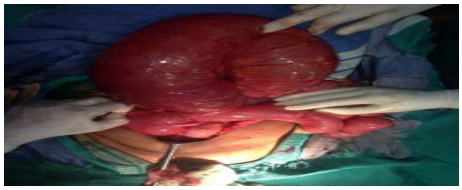
CASE REPORT

A 40 year old female presented with abdominal pain for past 2 days. The pain was colicky in type initially and progressed to dull aching over the 2 days. She had abdominal distension which was acute in onset and progressive. She also had history of complete obstipation for the past two days. Other significant history include vomiting for the past one day. There was no fever or hemetemesis or malena. There was no significant past history. On examination patient was dehydrated with tachycardia and on abdominal examination she had a fully distended abdomen with absent bowel sounds. There was diffuse tenderness all over the abdomen with tympanic note on percussion all over. There was no visible peristalsis or free fluid or mass in the abdomen. Per rectal examination showed roomy and empty rectum . Emergency plain x ray abdomen was taken which showed no significant abnormality except for a dilated loop in right hypochondrium. A clinical diagnosis of acute intestinal obstruction was made and an emergency laparotomy was planned. Meanwhile patient was resuscitated with crystalloids and intravenous antibiotics. On laparotomy hugely dilated transverse colon which was twisted along its mesentery causing volvulus and intestinal obstruction was found. Other significant finding included freely mobile ascending and descending colon and about 100ml of toxic peritoneal fluid. Resection of transverse colon was planned and the redundant transverse colon was resected completely.

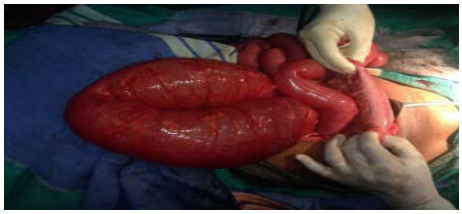
In view of emergency setting and unprepared bowel primary anastamosis was deferred and colon was brought out as end colostomy and distal mucus fistula. Patient had an uneventful post op and orals were started by 4th post op day after well functioning of colostomy. Patient was discharged by 9th post op day with advice for regular follow up.



Transverse colon volvulus



Transverse colon volvulus 2



Transverse colon volvulus 3

DISCUSSION

Colonic volvulus is a well recognized cause of large bowel obstruction 6. Volvulus of transverse colon is extremely rare its incidence being approximately 3% of all colonic volvulus 4,5. It tends to be associated with other abnormalities such as congenital bands, distal obstructing lesions and pregnancy 5. Non-fixation of colon and chronic constipation with megacolon may predispose to transverse colon volvulus 7. The mortality rate of transverse colon volvulus is 33% 6. Chilaiditis sign is the description applied to the radiographic finding of the colon, typically the hepatic flexure, interposed between the liver and diaphragm falsely imitating pneumoperitoneum 8. Chilaiditis sign is usually an incidental finding and most of these patients lack any clinical symptomatology. However Chilaiditis syndrome describes radiological evidence of Chilaiditis sign in addition to the symptoms of abdominal pain, nausea, vomiting, abdominal distension and constipation. Common etiologies for both Chilaiditis sign and Chilaiditis syndrome include increased colonic mobility or redundancy, congenital malrotation or malposition of colon, elevation of the right hemidiaphragm, enlargement of thoracic cage diameter and floating liver found in ascites 6. Two separate clinical presentations have been described in the literature for transverse colon volvulus, acute fulminating and subacute progressive. Acute presentation typically has a sudden onset of severe abdominal pain, tenderness, vomiting, and little distension and rapid clinical deterioration. Vomiting is thought to occur earlier which may be due to twisting of the root of the mesocolon compressing the duodenojejunal flexure. Bowel sounds are initially hyperacute but later may become absent. Patient with subacute form has more gradual and intermittent onset of symptoms. Abdominal pain is less severe or often absent and distension is often more prominent 6. Diagnosis of transverse colon volvulus is usually not made preoperatively.

The radiologic findings are not really characteristic9. Plain abdominal radiographs show non-specific colonic dilation and are frequently misread as a sigmoid volvulus due to variable position of the transverse colon9. The classic “birds beak” deformity in the area of transverse colon seen on contrast enema is diagnostic. However in acute situation surgery should not be delayed to perform the contrast study. Chilaiditis syndrome does not appear to be significant in diagnosing transverse colon volvulus but rather occurs as an occasional side effect6. Strategies for surgical treatment include: simple untwisting of the bowel, untwisting with colopexy, resection of the lesioned part with primary anastomosis, and resection with stoma formation. According to the literature, the procedure of partial removal rarely leads to a recurrence of the volvulus. Resection with or without primary anastomosis is the treatment of choice for transverse colon volvulus to prevent recurrence6. If there is ischaemic necrosis of colon two ends of resected colon should be exteriorized 5. Successful decompression by means of the colonoscope has been recently described 9. Because of rarity limited data is available regarding long term results following surgical treatment 10. Uptill now the studies which are carried out there are no universal agreement that a particular surgical treatment option is superior to other. But there is equivocal agreement on increased recurrence following colopexy alone.

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