Herniation of colon following transhiatal esophagectomy

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We report a 38-year-old man with intestinal obstruction following transhiatal esophagectomy for carcinoma esophagus; it occurred secondary to herniation of the transverse colon through the esophageal hiatus into the mediastinum. The patient is asymptomatic after reduction of the hernia and repair of the diaphragmatic hernia. [Indian J Gastroenterol 2005;24:122-123]

Transhiatal esophagectomy is commonly performed for cancer of the esophagus. Proponents of the procedure claim that it has a much lower morbidity and mortality when compared to more radical procedures since the thoracic cavity is not opened during surgery, with a comparable survival benefit.\(^{1}\)

Although relatively safe, transhiatal esophagectomy can be associated with a wide range of complications.\(^{2}\)

A 38-year-old man with squamous cell carcinoma of the lower third of the esophagus underwent transhiatal esophagectomy with gastric pull-up and cervical esophagogastrogastric anastomosis. The postoperative period was uneventful, except for a right-sided pneumothorax that was treated with intercostal tube drainage. Postoperative esophagogram was normal; he was started on oral feeds on the tenth postoperative day. The patient developed small bowel obstruction following return to oral feeds, and was managed conservatively. He responded, and was discharged in a satisfactory condition on the 15th postoperative day.

The patient presented to the surgical emergency after another 2 weeks, with feculent vomiting and dehydration. Examination revealed dehydration with tachycardia and a distended abdomen. Chest X-ray revealed right-sided pneumothorax with herniation of loops of colon through the hiatus and into the chest (Fig). Laparotomy revealed herniation of the transverse colon through the esophageal hiatus and into the mediastinum, with proximal bowel distension. The colon was gently reduced back into the abdominal cavity and the esophageal hiatus was narrowed and then tacked to the anterior wall of the stomach tube. Since the colon was of doubtful viability at the site of herniation, it was resected and brought out as a proximal colostomy. The patient did well in the postoperative period. Closure of the stoma was performed after 2 months, and he remains well on follow up 7 months after esophagectomy.

Although intrathoracic herniation of the abdominal viscera has been reported occasionally following thoracic and abdominal surgery, transhiatal herniation is an uncommon but preventable complication of transhiatal esophagectomy that occurs in 0.4% to 2% of patients.\(^{3,4}\) This may present early, as in our patient, or late, with a wide range of clinical symptoms that may include asymptomatic patients to those with acute intestinal obstruction, respiratory distress, chest pain, and others.\(^{3}\) Acute intestinal obstruction may occur in 25% of such patients\(^{4}\) and represents a major cause of mortality, especially in the presence of strangulated and perforated bowel.\(^{3}\)

The condition can usually be detected by chest X-ray\(^{3,4}\) which reveals the loop of intestine lying above the level of the diaphragm. As these herniae do not resolve spontaneously, surgery is recommended even in the absence of symptoms, to prevent future strangulation and perforation of the trapped intestine.\(^{5}\) Reduction of the intestine with narrowing of the hiatus is to be performed, with or without omentectomy.\(^{4}\) Exceptions may be made in patients with small, asymptomatic herniations and in those with a short life expectancy.\(^{3,4}\)

Narrowing of the diaphragmatic hiatus and tacking of the anterior gastric wall to the edges of the hiatus...
Congenital segmental dilatation of colon with colonic atresia

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Congenital segmental dilatation of the colon belongs to a group of Hirschsprung’s-like diseases with normal ganglion cells. The presentation is with chronic constipation affecting older children. We report a neonate with congenital segmental dilatation of the colon associated with sigmoid atresia. The child is well after a colostomy. [Indian J Gastroenterol 2005;24:123-124]

Congenital segmental dilatation of the colon belongs to a group of Hirschsprung’s-like disease with normal ganglion cells. Most cases reported are older children (6 mo to 22 y) presenting with chronic constipation. Only three cases have been reported in the neonatal period. Ileal dilatation with colonic atresia has been reported, but association of congenital atresia with segmental dilatation of the colon has not been reported yet.

A 2.3-Kg full-term boy was born of normal delivery to a 24-year-old mother. The neonate presented to us at day 2 of life with severe abdominal distension and failure to pass meconium. He had one episode of nonbilious vomiting. No dysmorphic features were noted. Examination revealed a 6 cm x 8 cm mass in the upper abdomen. X-ray showed a huge gas shadow in the upper abdomen.

After resuscitation, the child was taken up for laparotomy, which revealed loops of small bowel pushed to the left lower quadrant. The ileum opened into a normal cecum. The ascending colon was continuous with a hugely dilated segment of transverse colon; the descending colon was normal. There was atresia (type II) of the sigmoid colon. No taenia could be identified in the dilated segment. There were multiple tortuous serosal vessels on the dilated segment (Fig).

Proximal colostomy was done. The sigmoid atresia was repaired by end-to-end anastomosis. The dilated segment was plicated and a biopsy was taken. Microscopic examination showed normal ganglion cells; there was no muscular hypertrophy or submucosal fibrosis. The child is thriving well on the colostomy.

Since the first case described by Swenson and Rathauers, only 13 additional cases of segmental dilatation of colon have been described. Most were older children who presented with chronic constipation.

The left side of the colon is affected more frequently, with sigmoid and rectosigmoid involvement in 45% of cases. In our patient there was segmental dilatation of the transverse colon with atresia of the sigmoid colon. Segmental dilatation of the ileum with colonic atresia has been reported earlier. But association of segmental colonic dilatation with colonic atresia has not been reported.

Segmental dilatation of the colon belongs to the group of disorders related to Hirschsprung’s disease but without any abnormality of ganglion cells. Included in this group are idiopathic megacolon, pseudo Hirschsprung’s disease (ehrenpreis), and achalasia of the distal rectum.

Brawner and Shafer summarized the clinical and pathologic features as: i) lack of radiographically demonstrable motility of the dilated segment; ii) normal appearing and functioning colon both proximal and distal to the dilated segment; iii) absence of taenia coli in the dilated segment; iv) normal ganglion cells; and v) hypertrophy of the circular and longitudinal muscle layers in the dilated segment.