was a gastrointestinal stromal tumor (leiomyoma). The patient is doing well.

Gastric volvulus due to a gastric tumor is rare. The common type of gastric volvulus is organo-axial; our patient had incomplete mesentero-axial volvulus. Chronic and intermittent symptoms are described with mesentero-axial volvulus. The combination of pain, unproductive retching, and inability to pass a nasogastric tube is called "Borchardt's triad", which is characteristic of gastric volvulus. Endoscopic detorsion is an effective method to tide over an acute crisis. Chronic gastric volvulus due to gastric tumor is rare but should be considered in a middle-aged person with recurrent attacks of unproductive retching and epigastric pain.

References

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Coloduodenal fistula: an uncommon sequel of colonic tuberculosis
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We report a 42-year-old man who developed coloduodenal fistula secondary to hepatic flexure tuberculosis. Initially, feeding jejunostomy and ileostomy were done; subsequently, after antitubercular therapy, right hemicolecction and excision of the fistula with a sleeve of duodenal wall was performed.

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Key words: Intestinal tuberculosis

Coloduodenal fistula (CDF) complicating colonic tuberculosis is a rarity. Barium enema and colonoscopy are useful diagnostic tests. The management includes antitubercular treatment (ATT), nutritional supplementation, and surgical resection of the fistula and the diseased colon.

A 42-year-old man presented with abdominal pain, altered bowel habits, and loss of weight since 3 months. Examination revealed pallor, an ill-defined tender mass in the right lumbargo region, and palpable cecum. A clinical diagnosis of colonic neoplasm was made. Ultrasonography showed a hepatic flexure mass without ascites or liver metastasis. Barium enema showed an obstructing mass lesion in the hepatic flexure (Fig), and intussusception was suspected. Colonoscopy revealed a nodular growth at the hepatic flexure with ulceration, suggestive of carcinoma or lymphoma; biopsy revealed tuberculosis. Upper GI endoscopy showed only gastritis. He received standard 4-day ATT.

After 5 weeks he presented with febrile vomiting. Clinical and radiological findings of obstruction were absent. An internal enteric fistula was suspected. Upper GI endoscopy showed an ulcer in the second part of the duodenum, with focal matter. Barium enema did not reveal any fistula. A definite fistulous tract was not seen on barium follow-through but early filling of jejunal loops was noted. The patient could not afford total parenteral nutrition; febrile vomiting persisted even with low-residue enteral feeds. Feeding jejunostomy and ileostomy were done. During the 8th week of ATT he developed drug-induced hepatitis and visual disturbances, which resolved after withdrawal of rifampicin and ethambutol.

Three months after surgery his albumin and general status improved. At laparotomy a mass was noted in the hepatic flexure and proximal transverse colon. A fistulous tract between the mass and second part of duodenum (D2) was seen. Right hemicolecction with side-to-side ileo-coile anastomosis, excision of the fistula with a sleeve of D2, and primary closure of the duodenal defect was done. By the end of the second week he developed a low-output (30-140 mL/day) enterocutaneous fistula. He had no features of peritonitis and so was continued on oral diet and observed for 7 weeks. On exploration the anastomosis was intact but the closed end of ileum had a small leak (2 cm). The defect was closed.

His subsequent stay was uneventful. ATT with second-line drugs was continued for one year. At last follow-up 16 months postoperative he is doing well.

Fistulization into the duodenum is a common complication of colonic tumors and Crohn's colitis. Reports of colonic tuberculosis with duodenal fistula in English literature are sparse. The features of fistulization between the colon and duodenum are abdominal pain, intestinal hurry, loss of weight, and occasionally focu-
Gangrene of Meckel's diverticulum is uncommon and its pre-operative diagnosis is difficult. We report three cases with different presentations – simulating acute appendicitis, intestinal obstruction, and strangulation of the bowel. [Indian J Gastroenterol 2003;22:232-233]

**Key words:** Congenital diverticulae, intestinal diverticulae, ileo-ileo-intestinal duct

Meckel's diverticulae are usually wide-mouthed, capable of self-emptying, and have scanty lymphoid tissue; hence acute inflammation is less common. Infarction leading to gangrene is very rare. We report three such cases with different presentations.

**Case 1:** A 23-year-old man presented with pain in the lower abdomen and vomiting since 14 hours. There was tenderness in the right iliac fossa, with rebound tenderness. General examination and per rectal examination revealed no abnormality. A diagnosis of acute appendicitis was made. Total white cell count was high. At surgery through McBurney's incision the appendix appeared normal. When the terminal ileum was delivered out, a 10-cm-long, black Meckel's diverticulum was seen. Wedge resection of the affected area was done and the bowel was closed in 2 layers. The patient recovered uneventfully and was discharged on the 7th postoperative day.

**Case 2:** A 30-year-old woman was admitted with fever, vomiting, constipation and distention of the abdomen since 3 days. She had undergone normal vaginal delivery a day prior to admission to this hospital. General examination showed pallor and signs of dehydration. Bowel loops were visible on the abdomen. Bowel sounds were absent. The uterus was palpable 5 cm below the umbilicus. A diagnosis of paraortic ileus following intestinal obstruction or post partum sepsis was made. At laparotomy through a right paramedian incision, straw-colored ascitic fluid was drained and a whitish-grey band was seen to encircle the ileal loop. On releasing the band, a gangrenous Meckel's diverticulum was seen, with the band arising from the apex of diverticulum, curving around the ileal loop and adherent to the base of its mesentery (Fig). Wedge resection of the ileum bearing the gangrenous diverticulum was done and bowel continuity was restored by double-layer closure of the ileum.

![Gangrene of Meckel's diverticulum](image)

**Fig.** Pre-operative photograph of ileum loop (Case 2) showing gangrene localized to Meckel’s diverticulum.

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**References**


