to explain its origin include pancreatic metaplasia of endodermal tissues during embryonal life and transplantation or misplacement of embryonic tissue, which develops into mature elements.²

The clinical incidence of ectopic pancreas is 1 in 300 laparotomies and 2%-14% in autopsy studies. The most common location is the stomach (29%-38%); other sites include duodenum (9%-36%), jejunum (0.5%-27%), ileum (3%-6%), and Meckel's diverticulum (2%-6.5%).³ Seventy-five percent of lesions are submucosal, 15% intramuscular, and 10% subserosal.⁴ In most cases, it is an incidental finding at laparotomy; symptoms attributed to ectopic pancreas are abdominal pain, gastrointestinal bleed, and obstruction to the pylorus, ampulla of Vater, common bile duct and duodenum. Presentation mimicking superior mesenteric artery syndrome has not been reported earlier, to our knowledge.

Asymptomatic lesions do not require treatment. Symptomatic submucosal lesions may be removed endoscopically and subserosal lesions surgically. Endoscopic removal carries the risk of perforation and bleeding.

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Gastric outlet obstruction as a late complication of ingestion of diazinon

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Acute gastrointestinal symptoms are known to occur with organophosphorus compounds poisoning. Delayed complication in the form of gastric outlet obstruction has not been reported to date. We report gastric outlet obstruction developing after diazinon ingestion in a young girl. She responded to endoscopic balloon dilatation. [Indian J Gastroenterol 2003;22:106-107]

Key words: Pesticide poisoning

Organophosphorus compounds are used worldwide as pesticides in agriculture as well as in household gardens. Poisoning with these may occur via skin exposure or inhalation; however severe poisoning is usually the result of ingestion in a suicidal attempt. The gastrointestinal manifestations occur as a part of acute muscarinic syndrome and include nausea, vomiting, abdominal cramps and diarrhea.

A 17-year-old girl was admitted with complaints of epigastric pain and vomiting following attempted suicide with ingestion of around half a bottle of diazinon (Tik-20), an organophosphorus compound. At admission to the emergency room, she had pulse rate of 96 per minute, BP 110/70 mmHg, temperature 37.6°C and slightly constricted pupils reacting sluggishly to light. She was conscious and there was no muscle twitching or fasciculation, and lungs were clinically clear. Abdominal examination showed mild epigastric tenderness. She was treated with gastric lavage, intravenous fluids, H2 receptor antagonist, atropine and PAM. Hemogram, renal and liver biochemistry, and serum amylase and lipase were normal. Her condition stabilized and she was started on liquid diet after 5 days. She received psychological counseling and was discharged in a satisfactory condition after 7 days.

On follow up she started complaining of mild epigastric discomfort, postprandial fullness and large-volume emesis containing food material occasionally. Her symptoms progressed and she was hospitalized about 8 weeks after ingestion of the pesticide. Clinical examination revealed mild pallor, fullness in the epigastrum and succussion splash. She was put on intravenous fluids and proton pump inhibitors, and a nasogastric tube was placed to decompress the stomach. Endoscopy revealed normal esophagus and proximal stomach, and a pinhole gastric outlet opening; there was prepyloric and antral scarring, and few outpouchings resembling diverticulae (Fig). Barium meal examination showed an irregular stricture of the pylorus and antrum with approximately 3 mm diameter of the gastric outlet. A one-time endoscopic balloon dilatation using CRE balloon (Microvasive, USA) was successful and she remains fine on follow-up after 6 months.

Fig: Multiple pseudodiverticulae in antrum of stomach
The WHO classifies diazinon as a class II 'moderately hazardous' pesticide. As with other corrosives, there occurs edema, hyperemia, solitary and multiple erosions and ulcers in patients with acute organophosphorus poisoning.\(^1\) The gastrointestinal findings described at autopsy in 76 cases of acute diazinon poisoning include dark, blood-stained stomach contents, congested stomach mucosa with submucosal petechial hemorrhage, and occasional erosions and ulcerations.\(^2\) However, there is no report on the long-term effects of ingestion of these compounds in humans; this is probably the first report of gastric outlet obstruction occurring after ingestion of diazinon.

Corrosive strictures generally need repeated dilations; however, the stricture induced by organophosphorus compound in our patient responded to one-time endoscopic dilation, at least over a 6-month follow up.

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Parahial hernia with gastric obstruction in a child
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Parahial hernia refers to herniation of abdominal viscera into the chest adjacent to an intact hiatus. Spontaneously occurring parahial herniae are extremely rare. We report a 4-year-old boy who presented with intermittent vomiting and had such a hernia, where the herniated stomach had undergone partial volvulus. He was symptom-free after surgical repair. [Indian J Gastroenterol 2003;22:107-108]

Key words: Diaphragmatic defect, gastric volvulus

Parahial herniation refers to herniation of abdominal viscera (commonly the stomach) into the thorax through a muscular defect in the diaphragm close to but distinct from the esophageal hiatus.\(^1\) Mimicking the more common paraesophageal hiatus hernia, they are equally prone to be complicated by volvulus or strangulation.\(^2\)

We present such a case, which we believe is the first reported pediatric parahial hernia in literature.

Fig: Barium meal. Note narrow area through which stomach seems to have herniated. Stomach is on superior surface of diaphragm

A 4-year-old boy presented with history of intermittent non-bilious vomiting for 8 months. There was history of post-prandial upper abdominal discomfort, which was relieved by vomiting and significant loss of weight. There was no history of hematemesis or melena and no respiratory complaint.

Physical examination revealed stable vitals and no dehydration, pallor or icterus. Examination of the chest showed decreased breath sounds in the left lower zone, but there were no added sounds. Examination of the other systems was unremarkable.

Chest X-ray revealed what appeared to be an elevated left hemidiaphragm with an air-fluid level seen in the fundic air-fluid level, in the left hemithorax with mediastinal shift to the right. Barium meal was interpreted as showing evidence of left-sided eventration with partial gastric volvulus (Fig); the abdominal part of the examination was normal.

At exploration through a left subcostal incision, a 5-cm defect was seen just to the left of the esophageal hiatus, oriented laterally. The entire stomach had herniated into the chest through this defect, and the left diaphragmatic crus was clearly identified medial to the defect after reduction of the stomach. There was a flimsy hernial sac which was excised. Apposing its anterior and posterior margins using 2/0 non-absorbable sutures easily closed the muscular diaphragmatic defect. The esophageal hiatus was then formally opened and the esophagus was dissected to ensure adequate length of intra-abdominal esophagus. The repair was completed by placing the greater curve of the stomach to the lower esophagus and the diaphragm\(^3\) to prevent postoperative reflux and recurrence.

The postoperative course was uneventful and chest X-ray confirmed an intact diaphragm and good lung expansion. The child was discharged on the 5th postoperative day and his symptoms have completely disappeared.

Herniation of viscera through a naturally occurring parahial defect is extremely rare and its existence has been controversial.\(^4\) However, well-documented cases of spontaneously occurring parahial herniae have been reported in laparoscopic studies in adults,\(^5\) although their numbers are small.