Case Snippets

Benign esophageal stricture following aluminium phosphide poisoning

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Aluminium phosphide is often implicated in accidental and suicidal poisoning in India. Ingestion of even half a fresh tablet invariably results in death, whereas exposed tablets are usually considered harmless. We report two cases of short-segment esophageal strictures that occurred following ingestion of exposed tablet of aluminium phosphide. Both cases could be successfully managed by endoscopic dilatation. [*Indian J Gastroenterol* 2005;24:261-262]

Aluminium phosphide is a commonly used pesticide in rural India.[1] The pesticide, available as 3-gram tablets, is often used as a suicidal poison. Poisoning with aluminium phosphide (celphos) carries very high mortality, and an unexposed half tablet (1.5 g) is usually fatal.[1,2] Tablets exposed to air lose their toxicity.[2,3] We report two patients with esophageal strictures that occurred after attempted suicidal poisoning with exposed tablets of aluminium phosphide.

Case 1: A 30-year-old man presented with history of dysphagia since 1 month. He gave history of attempted suicide with one exposed tablet of aluminium phosphide. Following ingestion he complained of retrosternal pain for 3 days, which resolved on treatment with antacids. A week later he started having difficulty in taking solids and at presentation he had dysphagia to liquids as well. Barium swallow showed a short-segment tight stricture at the level of dorsal 3-4 vertebrae with marked proximal dilatation. Esophagoscopy showed a 3-cm-long tight stricture at 24 cm, which was dilated with a balloon over a guidewire. The rest of the esophagus and stomach were normal. The patient was allowed oral liquids after 2 hours; he was taking soft diet by the next day. He required 2 more sessions of dilatation at 2-week intervals. For the last 3 months he is asymptomatic and on regular follow up.

Case 2: A 23-year-old man presented with dysphagia since 2 months following attempted suicide with half of an exposed tablet of aluminium phosphide. Following ingestion he complained of chest pain and was admitted to the hospital for 3 days and was managed conservatively. Three weeks later he started complaining of difficulty in swallowing, which gradually progressed. At presentation he was able to take semisolids with difficulty. Esophagoscopy showed a short-segment (2 cm) narrowing at 37 cm (Fig) with normal gastro-esophageal junction at 38 cm. There was no hiatal hernia and no evidence of reflux esophagitis. The stricture was dilated endoscopically with a balloon over a guidewire. He was able to take soft diet by the next day and normal diet after 1 day. He underwent repeat dilatation after 3 weeks and is now asymptomatic for the last 6 months.

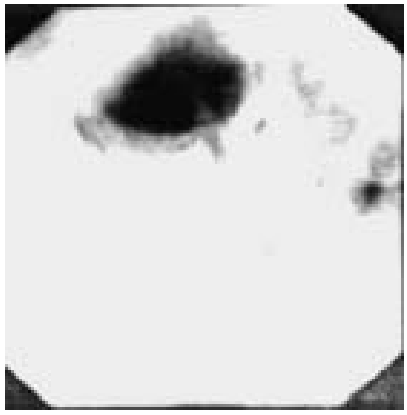

Fig: Endoscopy showing stricture at 37 cm

Aluminium phosphide, a common pesticide used for preserving wheat, is often implicated in accidental and suicidal poisonings in India.[1,4,5] It is a highly toxic compound that releases phosphine gas on contact with moist surfaces and can cause gastrointestinal hemorrhage, arrhythmias, shock, renal and hepatic failure, and central nervous system disturbances.[1,2,5] Most patients who survived had either taken a very small amount or the tablet had been exposed to air, thus rendering it non-toxic.[3,5]

We report two patients with short-segment esophageal strictures that occurred after attempted suicidal poisoning with exposed tablet of aluminium phosphide. Only one case of tracheoesophageal fistula due to celphos poisoning has been reported earlier.[6] The strictures in both our patients were amenable to dilatation as they involved a short segment, and the rest of the esophagus was normal.

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Carcinoid tumor of bile duct

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We report a 38-year-old lady with carcinoid tumor of the extrahepatic biliary tract who presented with recurrent obstructive jaundice and previous surgery for suspected choledocholithiasis. MRCP revealed a large bile duct tumor extending from the confluence up to the superior aspect of the pancreas; this was completely excised, with bilio-enteric anastomosis. These tumors are characteristically slow growing and, therefore, are amenable to aggressive surgical excision, which offers the best chance of cure. [*Indian J Gastroenterol* 2005;24:262-263]

Carcinoid tumors of the biliary tract are rare and account for 0.2%-2% of all GI carcinoids.[1] These are usually slow growing neoplasms with low malignant potential and hence are amenable to aggressive surgical management. Preoperative diagnosis is difficult because they mimic the signs and symptoms of choledocholithiasis and/or cholangiocarcinoma.[2]

A 38-year-old lady presented to a surgeon three years ago with history of obstructive jaundice, pain, fever, and serum bilirubin of 8 mg/dL. She underwent endoscopic retrograde cholangiography (ERC), which revealed hemobilia; biliary stenting was done. Following ERC, serum bilirubin dropped to 1.4 mg/dL and the patient was asymptomatic. She presented again with obstructive jaundice a year later and underwent cholecystectomy with removal of biliary stent. Intraoperatively, a suspicious mass was noticed in the common bile duct (CBD); this was biopsied and a T-tube was inserted. Histology was reported as neuroendocrine tumor, which was confirmed on immuno-histochemistry (cytokeratin and leukocyte common antigen [LCA] positive).

The patient followed up intermittently thereafter. A year later, CT abdomen revealed a lesion at the confluence encasing the plastic stent, with intrahepatic biliary radicle (IHBR) dilatation. She underwent palliative stenting. One year later she presented with obstructive jaundice since 2 months. ERC was done and previous stent was removed; due to bleeding, a new stent could not be placed.

She was then referred to our department. CT scan revealed a mass involving the extrahepatic biliary tract from confluence to superior border of pancreas. Fat planes between the mass and duodenal wall and head of pancreas were obliterated superomedially, with mildly prominent IHBR. Magnetic resonance cholangio-pancreatography (MRCP) showed an enhancing mass lesion, 7 cm x 4 cm x 3 cm, extending from the confluence of the hepatic ducts to the distal CBD (Fig). The mass involved the entire CBD and extended into the left hepatic system with IHBR dilatation. The right duct measured 12 mm and left 14 mm.

Fig: MRCP showing upper extent of large tumor with dilated right and left ducts

Preoperative percutaneous transhepatic biliary drainage (PTBD) was done to facilitate identification of the confluence and biliary ducts. Intraoperative findings revealed a large, firm to hard, nodular tumor of the CBD measuring 5 cm x 4 cm x 3 cm, extending from the suprapancreatic part of the CBD up to the confluence. Total excision of the tumor was carried out with a margin of 0.5 cm above and up to upper border of pancreas. Continuity was established with a Roux-en-Y hepatico-jejunostomy. Postoperative period was uneventful. PTBD was clamped and removed after 12 days.

Histology confirmed the tumor to be a well-differentiated neuroendocrine carcinoma of the CBD. One lymph node was free of tumor. Both the resection margins were free. The tumor showed a combination of insular, acinar and trabecular pattern. Mitotic activity was seen (6-10 mitosis/HPF). The tumor was seen invading through the wall of CBD.

The patient recovered uneventfully and is asymptomatic on follow up at 2 months.

Carcinoid tumor of the extrahepatic bile duct is a rare form of biliary obstruction, with fewer than 34 cases reported in the English literature.[3] The most common anatomic sites were the CBD (58%), perihilar region (28%), cystic duct (11%), and common hepatic duct (3%). Unlike cholangiocarcinoma, biliary carcinoids occur more commonly in younger patients and in women. Aggressive local invasion by the primary tumor is rare, and metastases occur in less than one-third of patients.[1] Surgical resection is recommended. The final diagnosis is usually confirmed by immuno-histochemistry studies.[4,5]

Data on adjuvant therapy remain investigational;