Gastric Volvulus and Obstruction in Paraesophageal Hiatus Hernia

A Surgical Emergency

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Patients with a paraesophageal hiatus hernia are usually asymptomatic. If gastric volvulus and obstruction of the herniated stomach should occur, however, symptoms rapidly ensue and surgery is mandatory for patient survival. We have presented 4 such cases which illustrate the clinical spectrum of this complication and the necessity for rapid diagnosis and definitive surgery.

In our experience, it is uncommon for patients to have serious symptoms resulting from a paraesophageal hiatus hernia. If there is associated volvulus of the herniated stomach, however, a series of events may transpire leading to acute obstruction. When the latter complication is not quickly recognized and surgery performed, strangulation and gangrene of the herniated stomach may occur with disastrous results (1–8).

We would like to report the course of 4 elderly patients, known to have a paraesophageal hiatus hernia for years, who required emergency surgery for an associated volvulus and acute obstruction. None had evidence of hemorrhage.

CASE REPORTS

Case 1

A 71-year-old male was seen in the emergency room. He complained of epigastric pain, vomiting and hiccoughs of several days duration and appeared dehydrated and acutely ill. He was not in shock, and no abnormalities were found on examination of the heart and lungs. Epigastric tenderness was present, however, and a succussion splash could be heard in the left anterior chest area. In 1965 (Fig 1) and again in 1969, roentgenographic studies of the esophagus and stomach using barium, had shown a large paraesophageal hernia with associated volvulus of the intrathoracic stomach. The patient had refused surgery at these times.

A supine chest film revealed a large air-fluid density adjacent to the heart (Fig 2). Roentgenograms after a barium swallow showed volvulus and dilatation of an intrathoracic stomach which was partially obstructed (Fig 3).

Surgery was performed later the same day through a thoracoabdominal incision. The stomach was found to lie entirely in the thorax having herniated through a large hiatal sac, and was twisted 180°. The duodenum was deformed by chronic peptic ulcer disease. The volvulus was thereupon reduced, the stomach returned to the abdomen and the greater curvature was sutured to the anterior abdominal wall.

The patient recovered without complications, and was discharged from the hospital feeling well. A repeat barium study of the stomach, 2 months later, showed no signs of a hiatus hernia and was considered normal (Fig 4).

Case 2

An 87-year-old widow came to the Clinic because of severe epigastric pain and nausea of 24-hours duration. She had known of a "stomach hernia" for years.

She was acutely ill and showed signs of cyanosis,
Fig 1. Barium study of the esophagus and stomach in 1965. There is evidence of a para-esophageal hiatus hernia and gastric volvulus. The esophagogastric junction is below the diaphragm, and the greater curvature of the stomach is anterior.

decreased breath sounds in the left chest and shock. Tenderness and guarding were present in the epigastric area. The chest roentgenogram revealed a large retrocardiac viscus and 2 air-fluid levels (Fig 5). Subsequent examination of the stomach after a barium swallow was consistent with volvulus of a herniated stomach with obstruction.

At surgery, the stomach was found to be herni-ated into the thorax and twisted $180^\circ$ so that the greater curvature was anterior. The stomach was aspirated and a "huge amount of air under great pressure" and 300 ml of fluid were withdrawn. The volvulus was then reduced, and the entire stomach was purplish in appearance, but without evidence of actual tissue necrosis. The stomach was then sutured to the anterior abdominal wall.