

## Gastric seromuscular patch for intrathoracic perforation repair

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### Abstract

**AIM:** To observe the effect of repair of intrathoracic esophageal perforation with gastric seromuscular patch.

**METHODS:** Twelve patients with intrathoracic esophageal perforation, none of whom were associated with carcinoma, underwent primary repair with a gastric seromuscular patch and omental pedicle flap between 1996 and 1999. Four perforations were iatrogenic and 8 were spontaneous. The interval from perforation to operation was less than 12 h in 4 patients, 12 to 24 h in 3, and more than 24 h in 5. The principle of repair included: (1) To expose health mucosa and submucosa for the primary repair. The leading edge of the mucosa is grasped and the adjacent esophageal

muscle is mobilized away from the submucosa until there is a 3 to 7 mm circumferential rim of normal submucosa. (2) The gastric seromuscular patch and omental pedicle flap require continuity of the right gastric piple, omental vessels and the rami. (3) To assure the blood flow of the esophagus when the necrotic mediastinal and esophageal tissue are debrided, the normal esophageal tissue often extends well beyond the 3/4 diameter of the esophagus. And (4) The mediastinal pleural is not closed in order to drain. The catchers nasogastric tube decompression of the stomach is continued until the postoperative ileus resolves.

**RESULTS:** Eleven of the 12 patients underwent primary repair, one patient had leak at the site of repair and died.

**CONCLUSION:** Meticulous repair of an intrathoracic esophageal perforation using a gastric seromuscular patch is the preferred approach regardless of the duration of the injury.

**Key words:** Esophageal perforation/therapy; Combination gastric seromuscular patch; Omental pedicle flap; Esophagectomy; Thoracotomy

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