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ORIGINAL ARTICLE – GASTROINTESTINAL ONCOLOGY

Reconstruction Using a Pedunculated Gastric Tube with Duodenal Transection After Esophagectomy and Pharyngolaryngectomy

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ABSTRACT

Background. Gastric conduit ischemia is sometimes correlated with anastomosis-related morbidities after esophagectomy and pharyngolaryngectomy.[1–5] A lack of connection between the right and left gastroepiploic vessels and intraoperative injury to these vessels could cause conduit ischemia. In addition, tensioned anastomosis due to a short gastric tube also could contribute to anastomotic leaks. This report introduces a reconstruction technique using a pedunculated gastric tube with duodenal transection for these cases.

Methods. Creation of a gastric tube in the greater curvature of the stomach is performed with linear staplers. Only the right gastroepiploic vessels are preserved. The gastric tube is finally fashioned with a width of approximately 4 cm. The peripheral right gastroepiploic vessels to the pylorus are sacrificed. After the bulbs are transected, a pedunculated gastric tube is moved, with confirmation whether it has sufficient length for anastomosis in the neck. After the anal side of the gastric tube is transected, Roux-en-Y gastrointestinal anastomosis is performed. Finally, esophagogastric or pharyngogastric anastomosis is performed.

Results. Between November 2011 and September 2014, 18 patients underwent the reported reconstruction technique due to short gastric tubes in 10 patients and a lack of connection between the right and left gastroepiploic vessels in 8 patients. Anastomotic leaks occurred in three patients (16.7 %), conduit necrosis in no patients, and strictures in no patients, respectively. Two patients had an anastomotic grade 2 leak, and one patient had an anastomotic grade 3 leak.

Conclusion. The current reconstruction technique is a good alternative for patients at risk of conduit ischemia and patients with a short gastric tube after esophagectomy and pharyngolaryngectomy.

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