Review of Three Common Surgical Approaches for Gastric Cancer

Ivor-Lewis Esophagogastrectomy

Surgical approach is predominantly determined by the location of the tumor within the stomach, the clinical stage, and histologic subtype. For tumors of the proximal stomach or gastroesophageal junction, surgical resection can involve (1) an esophagogastrectomy via a transthoracic (Ivor-Lewis technique), left thoracoabdominal, or transhiatal approach, or (2) a total gastrectomy via a transabdominal approach. The Ivor-Lewis approach is a two-stage surgical procedure involving both an abdominal incision and dissection followed by a right thoracotomy and esophageal resection, producing an intrathoracic esophagogastronomy anastomosis. The abdominal incision allows not only a more thorough assessment of peritoneal spread and mobilization of the stomach on its vascular pedicles in preparation for transposition into the thoracic cavity, but this approach also enables dissection of abdominal LNs. The right thoracotomy incision permits full visualization of the thoracic esophagus and ability to perform a full LN dissection of the mediastinum.

Total Gastrectomy with Roux-en-Y Esophagojejunostomy

For proximal lesions of the stomach or diffusely infiltrative tumors, total gastrectomy with Roux-en-Y esophagojejunostomy is typically performed (Supplemental Figure 2). The Roux-en-Y esophagojejunostomy establishes a surgical anastomosis between the proximal jejunum and the transected esophagus. The jejunum is divided about 15-30 cm distal to the ligament of Treitz, and the distal jejunal end is drawn upward through an avascular area of the transverse mesocolon to the transected esophagus. The proximal jejunal end is then connected to the mid-jejunum (a.k.a jejunojejunostomy) about 50-60 cm distal to the esophagojejunostomy. A total gastrectomy with Roux-en-Y esophagojejunostomy confers lower rates of reflux esophagitis compared to a proximal gastrectomy.1
**Subtotal Gastrectomy**

In contrast to proximal gastric cancers, for distal lesions of the stomach, subtotal gastrectomy with surgical margins ≥ 5 cm yields equivalent outcomes and improved short term quality of life compared to total gastrectomy\(^2,3\).

**Bibliography**