Supplemental Digital Content 2. Text reviews the historical perspective of esophageal surgery.

**Historical Perspective of Esophageal Surgery**

**Esophagectomy for benign disease.** With progressive advances in general anesthetic techniques, especially endotracheal, surgical procedures for esophageal diseases were able to evolve, to eventually include transthoracic approaches with retrosternal and posterior mediastinal reconstruction. Esophageal conduit replacements were initially developed to treat benign caustic esophageal strictures, using jejunal or colonic interpositions that were placed in an ante-sternal, subcutaneous route to avoid entering the thorax. In 1906, Dr. Roux reported using jejunum to bypass an esophageal stricture.86 Jejunum provided a reliable blood supply and intrinsic peristalsis but was inherently limited by conduit length and mesenteric fixation.

With advances in microvascular anastomosis and the development of free-jejunal grafts, in 1946, Longmire described “supercharging” jejunal conduits in the neck with a cervical vascular anastomosis to increase perfusion.87 Similarly, Brain and Merendino reported using a short segment of jejunal interposition to replace a distal esophageal peptic stricture.88,89 Colon and stomach also proved to be effective conduits. Colon was utilized because it provided adequate conduit length, with the option to use the right or left colon, and it was resistance to acid exposure; however, it required two anastomoses. The gastric conduit subsequently became the first-choice conduit given its robust blood supply, resistance to acid and single anastomosis.

**Esophagectomy for malignant disease.** In 1913, Torek reported the first successful resection of the thoracic portion of the esophagus for carcinoma, with bipolar exclusion, and in 1933, Oshawa performed the first esophagogastric anastomosis via the left thoracic approach.90,91 The left thoraco-abdominal Sweet approach, which included a diaphragmatic radial incision, became the most commonly used technique, but included risk of aortic injury during dissection and significant respiratory morbidity.92 In 1946, Ivor Lewis introduced the right-sided trans-thoracic approach with an intra-thoracic anastomosis, which had the potential to leak into the mediastinum.28,29 To circumvent this complication, McKeown favored performing a three-stage (abdomen, chest, and neck) esophagectomy via a right thoracic approach with the anastomosis in the neck.34 Transhiatal esophagectomy was first introduced in 1933 by Turner and became a more accepted practice in 1978 when Orringer and Sloan showed it was surgically feasible and could lower morbidity and mortality related to intrathoracic anastomotic leaks.93,94