Technique for Robotic Ivor Lewis Esophagectomy with 6-cm Linear Stapled Side-to-Side Anastomosis

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Minimally invasive esophageal resections for esophageal cancer have been shown to decrease postoperative complications compared with open esophagectomy without compromising oncologic outcomes, including in randomized trials comparing open with laparoscopic/thoracoscopic,¹ robotic,² and hybrid³ approaches.

In the accompanying video, we present our technique for robotic Ivor Lewis esophagectomy. We demonstrate a stapled side-to-side anastomosis, which is associated with a lower leak rate compared with a cervical anastomosis in our experience.⁴ Potential benefits of this technique compared with a stapled end-to-end anastomosis (EEA) include a larger anastomotic diameter and improved vascular supply. The robotic platform allows for completion of the operation from the console with use of the robotic linear stapler and intracorporeal suturing.

VIDEO

The da Vinci Xi robotic platform (Intuitive Surgical, Sunnyvale, CA) is used. Dissection begins in the abdomen with division of the gastrocolic ligament, preserving the right gastroepiploic vessels. The transverse mesocolon is

dissected from the stomach and duodenum, and the duodenum is mobilized. The right gastric artery is divided, followed by the left gastric vein and artery. The gastric conduit is fashioned using loads of a 60-mm robotic stapler. The patient is then repositioned into left lateral decubitus position. The thoracic esophagus is dissected free circumferentially. The azygous vein is divided, and the esophagus is divided. After the specimen is extracted and the margin is confirmed negative, a 60-mm side-to-side esophagogastrostomy is created and the common channel is closed using a stapling technique.

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