

Title:

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Early diagnostic endoscopy and prophylactic stenting after robotic transthoracic esophagectomy - From scepticism to standardization

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Dear Editor,

Suture dehiscence following esophagectomy for cancer is associated with a mortality rate between 10-40%, in addition to increasing hospital stay and healthcare costs, ultimately reducing overall survival rates¹. The key principles to prevent dehiscence include proper patient selection and meticulous surgical technique that reduces tension and ischemia at the suture line. In recent decades, algorithms and procedures have been developed to decrease the incidence of thoracic and cervical dehiscence. Notable among these are the ERAS (Enhanced Recovery After Surgery) multimodal prehabilitation protocols, gastroplasty supercharging, and the use of technology such as intravenous injection of indocyanine green, which highlights the best-vascularized

area of the gastroplasty for performing the anastomosis.

The overall rate of anastomotic leaks exceeds 10% even in specialized centers². It seems logical to apply endoscopic devices preventively, which have been proven effective in treating already established dehiscence (e.g., self-expanding stents or endoscopic vacuum therapy)^{3,4}. Accordingly, all patients except the first in our series of 9 men and 3 women who underwent fully robotic Ivor-Lewis esophagectomy between May and November 2023 underwent upper gastrointestinal endoscopy within the first 48-72 hours after surgery. Five of them (41.6%) received a prophylactic fully-covered self-expanding stent, primarily due to the presence of fibrin and/or visible sutures, which increased the likelihood of dehiscence in the following days. In two patients, the stent measured 26 x 180mm, in another two 28 x 180mm, and in one 20 x 120mm. All stents were secured with over-the-scope clips, which prevented migration in all cases. The mean hospital stay for these patients was 16 days, longer than the 8.8 days for those who did not receive a stent, but shorter than the 53.5 days for the two patients who experienced dehiscence, one without early endoscopy and the other detected during it.

Stent placement and removal were performed without complications, with removal was at 29, 33, 28, and 31 days postoperatively. One patient died due to a respiratory infection unrelated to the endoscopic procedure or a dehiscence. One patient subsequently underwent 5 sessions of pneumatic dilations for an anastomotic stricture.

In our experience, early endoscopy following robotic esophagectomy and the placement of prophylactic stents in patients at risk of dehiscence is safe and effective. Prospective studies are necessary to draw solid conclusions⁵.

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