P-OGC68  Prophylactic Endoluminal Vacuum Therapy (EVT) following oesophagectomy

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Background: Endoluminal vacuum therapy (EVT) is an emerging treatment strategy for the management of anastomotic leaks following oesophagectomy. However, patients are often critically unwell with mediastinitis and established sepsis by the time the leak is diagnosed. This results in a protracted recovery period regardless of the effectiveness of EVT in treating the leak. Prophylactic EVT to protect the anastomosis following oesophagectomy may reduce the incidence of anastomotic leak, and/or mediastinitis and sepsis if the anastomosis does fail. We report the outcomes of two patients considered high risk for anastomotic leak who were managed with prophylactic EVT following esophagectomy for cancer.

Methods: Two patients received prophylactic EVT following oesophagectomy between May and July 2021. The patients were considered high risk for anastomotic leak due to technical concerns with, or complications during, the operation. In both cases the oesophagogastric anastomosis (OGA) was fashioned with a circular stapler. The endoluminal vacuum device (EVD) was constructed using an 18F nasogastric tube and a piece of open cell foam, and placed intraluminally across the anastomosis under endoscopic guidance at the time of surgery. Continuous negative pressure (125mmHg) was applied. Information relating to treatment and outcome was recorded prospectively.

Results: Patient 1, a 72-year-old female, ASA 2, underwent minimally invasive oesophagectomy for an adenocarcinoma at the gastro-oesophageal junction. After creating the stapled OGA, inspection revealed the proximal (oesophageal) tissue doughnut was complete but attenuated. Patient 2, a 67-year-old male, ASA 3, underwent a hybrid Ivor Lewis oesophagectomy for a lower 1/3 oesophageal adenocarcinoma. Surgery was complicated by significant intra-abdominal bleeding requiring blood transfusion and pressor support. In both cases, endoscopic assessment of the anastomosis following removal of the prophylactic EVD was performed day seven post-operatively. The anastomoses were healthy with no evidence of a leak, dehiscence, or early stricture formation.

Conclusions: In this limited case series, prophylactic EVT of the OGA following oesophagectomy was delivered safely with no complications related to insertion of the EVD or delivery of EVT. This intervention should be considered in cases where the risk of anastomotic leak is high. An intraluminal EVD situated across the OGA may minimise the extent of extraluminal contamination, and the systemic consequences of sepsis associated with this, should an anastomotic breakdown occur. Further studies are required to determine the safety of prophylactic EVT following oesophagectomy, and whether this improves surgical outcomes by reducing the incidence and impact of anastomotic leaks.