Esophageal injury: Tissue is always the issue

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Benign esophageal stricture or damage that requires surgical intervention remains a significant clinical challenge. The esophagus, unlike some other organs, is prone to fibrotic remodeling after tissue loss or injury that often can become intractable, resulting in loss of function with associated morbidity, loss of quality of life, and increased health care costs.¹ Common therapeutic strategies mandate complex procedures to restore partial esophageal functionality in this context, and modern interventions such as endoluminal stenting are not applicable to all scenarios.² Options for esophageal reconstruction usually involve a new conduit interposition, whereas esophageal-sparing procedures are less widely applied because of multifactorial medical issues. In this issue of the *Journal*, Pompeo and colleagues³ describe their encounter with an unusual and complex problem of esophageal obstruction from compression by a large thoracic aortic aneurysm.

In the case reported by Pompeo and colleagues,³ a tortuous, stented (by thoracic endovascular aortic repair) aneurysm caused obstruction of the esophageal tract, leading to an abrupt cutoff of barium contrast on imaging. This finding suggested that the esophageal body might be so compressed as to sustain additional injury. With prudent preoperative planning and clinical insight, Pompeo and colleagues³ identified an opportunity to mobilize (“slide”) the esophagus intraoperatively, thus allowing a primary repair of the esophageal wall and restoration of luminal patency. Indeed, there was a noncircumferential perforation in the esophageal wall amenable to mucosal closure. This site was protected from further compressive forces by the insertion of an intercostal muscle flap, which also augmented the local vascular supply to this repaired region. This scenario reminds us in such instances to attempt complete preservation of the esophageal body before any considerations of replacement. Presumably, this rare presentation is a plausible precursor to those more frequently

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Central Message

A novel repair and preservation technique that is based on lateral mobilization of the esophagus is a useful option to consider in complex cases involving esophageal compromise.

See Article page e23.

reported aortoesophageal fistulas occurring after aneurysms fixed by thoracic endovascular aortic repair, with an incidence of 1.7% to 1.9%.⁴

This useful report adds to the armamentarium of thoracic surgeons faced with decisions to preserve versus replace the esophagus during surgical approaches to esophageal stricture or other injury. In addition, ongoing research efforts in esophageal replacement with tissue-engineering constructs hold promise for revolutionizing this clinical niche.⁵ Degradable bioscaffolds composed of extracellular matrix have been applied as a patch-type plasty to close full-thickness, nonmalignant esophageal wall defects in a small case series (n = 4), with good short-term outcomes.⁶

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