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Commentary: Postoperative oropharyngeal dysphagia as a target for limiting cardiac surgical complications—more work to be done

Victor A. Ferraris, MD, PhD

In this issue of the *Journal*, Plowman and colleagues address the presence of postoperative oropharyngeal dysphagia in patients following cardiac operations.¹ The authors studied 182 patients using fiberoptic and questionnaire evaluations of swallowing within 3 days of cardiac operations and found surprisingly high rates of unsafe swallowing (both bolus penetration below the cords and frank aspiration) using postoperative oropharyngeal swallowing studies. Many aspiration events were silent and unrecognized by clinicians and patients. Perhaps more importantly, the authors identified risk factors for postoperative aspiration that likely are the initial steps in limiting these events. Risk factors included New York Heart Association class III-IV heart failure, reoperation, use of intraoperative transesophageal echocardiography (TEE), intubation for >27 hours, and endotracheal tube size ≥ 8.0 .

There was a significant association between postoperative complications and patients with documented oropharyngeal dysphagia. The authors also identified increased perioperative resource utilization in this cohort with oropharyngeal dysphagia. Patients identified as having problematic aspiration had increased time to oral feeds, increased hospital cost, and increased length of stay. Aspiration was significantly associated with pneumonia, the need for reintubation,

Lateral neck imaging and bronchoscopic view of oral contrast pooling in the vallecula in a patient with oropharyngeal dysphagia after lung resection.

CENTRAL MESSAGE

Oropharyngeal dysphagia after cardiac operations is difficult to diagnose and treat in the perioperative period, but important complications can arise from this postoperative problem.

and hospital mortality. It is hard to argue with the authors' suggestion that aspiration after cardiac operations is prevalent, not always obvious, and associated with increased postoperative morbidity and mortality.

This article is important for several reasons. It highlights the prevalence of abnormal swallowing events in a typical postoperative cardiac surgical population, emphasizes the potential contribution to adverse outcomes from postoperative aspiration events, and provides evidence of the prevalence of increased resource utilization in patients with these aspiration events. These factors contribute to an imperative for increased recognition of the importance of postoperative aspiration events and for understanding interventions that may reduce aspiration events and improve cardiac surgical outcomes.

Although the authors suggest that improved attention to perioperative aspiration is an important component of optimizing care in this patient cohort, this is not news. Others have identified oropharyngeal dysphagia as a significant, fairly common, and often unrecognized postoperative problem following cardiac operations.²⁻⁴ This is not a newly recognized problem, and very few advances have made significant inroads into diagnosing and treating this problem. Given the long-standing nature of this problem and the limited number of new treatment interventions, it is difficult to see a way forward. Questions still abound:

- When should an early postoperative swallowing study be done in patients undergoing cardiac operations?

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- What prophylactic treatments are effective in limiting complications from postoperative swallowing abnormalities?
- Are there high-risk patient subgroups, based either on the characteristics of operation or on recognized risks for swallowing abnormalities, that are candidates for extra precautions to limit complications of swallowing dysfunction after cardiac operations?
- Is it possible that alternative, less-invasive procedures can limit oropharyngeal dysphagia in certain high-risk patients undergoing cardiac procedures?⁵
- Does early postoperative endoscopic and swallowing assessment diagnose and limit complications of oropharyngeal dysphagia?

Plowman and colleagues deserve some credit for bringing the risks of oropharyngeal dysphagia to the consciousness of cardiac surgeons. There is much work to do

to define high-risk populations and to devise treatment plans to limit intraoperative and early postoperative swallowing difficulties.

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Commentary: Postoperative esophageal function: Important lessons for cardiac surgeons to swallow

Robert B. Cameron, MD

There is perhaps no more universally held surgical doctrine than the belief that esophageal dysfunction leading to aspiration is one of the sources, if not the single greatest sources, of morbidity and mortality in both intensive care unit (ICU)

Robert B. Cameron, MD

CENTRAL MESSAGE

Some degree of esophageal dysfunction is present in >90% of postoperative cardiac surgery patients, necessitating careful attention to contributing factors and postoperative functional evaluation.

and surgical patients. This is particularly true in cardiothoracic surgery.^{1,2} The complex nature of esophageal dysfunction integrates abnormalities not only of “forward-flow” (oropharyngeal dysphagia), but also of “backflow” (gastroesophageal reflux). Aggravating factors include sedating medications, intubation-associated oropharyngeal trauma,

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