Time For a Rendezvous: Multi-disciplinary Management of Complete Esophageal Obstruction in a Patient Following Radiation to Post Surgical Anatomy

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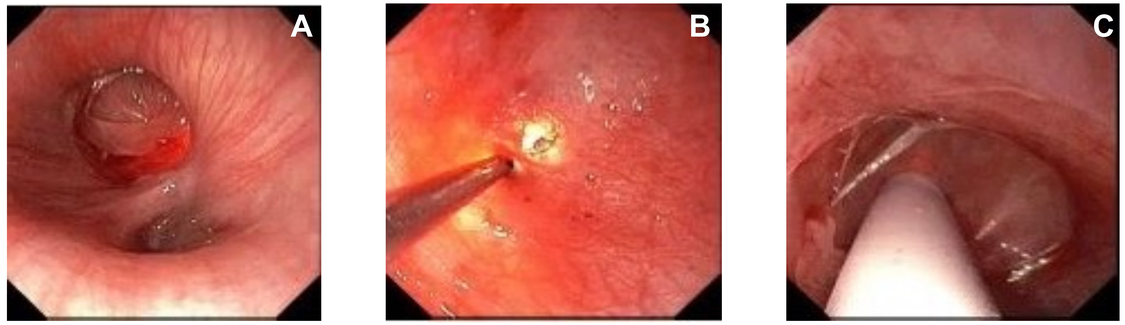
Introduction

- Esophageal stenosis is a common complication of radiation exposure
- Balloon dilation restores luminal patency for partial narrowing, though complete obstruction can require recanalization through Combined Anterograde and Retrograde endoscopic Dilation (CARD), also known as the rendezvous technique
- We describe a case of successful CARD recanalization following multi-modal cancer treatment

Pre-CARD Case Background

- 65-year old male with right tonsillar cancer underwent resection of the right tonsil, tongue base and palate with pectoralis major reconstruction followed by radiation
- One year later, he developed progressive dysphagia to both liquids and solids that required PEG placement to maintain nutrition
- Laryngoscopy revealed post-radiation changes, and attempted upper endoscopy revealed complete luminal obstruction
- Retrograde endoscopy via gastrostomy initially was unsuccessful due to scarring, so wire-guided Savary dilation was performed until an ultra-thin endoscope could pass into the stomach

Endoscopic Images from the CARD Procedure



A: Complete stenosis seen on retrograde endoscopy with transillumination from laryngoscope

B: Retrograde piercing of the membranous stenosis with the sharper end of a Savary wire

C: Retrograde visualization of antegrade Savary dilation over the guide wire

Procedure Description

- Retrograde inspection revealed a benign-appearing, complete stenosis in the proximal esophagus (A), while concurrent antegrade laryngoscopy performed by the ENT service visualized a thin tissue membrane with transillumination
- The membrane was pierced retrograde under direct visualization with the sharp end of a Savary guide wire, after which it was advanced out through the mouth (B)
- Stepwise antegrade Savary dilation then was performed over the wire to 45 French under direct visualization with the retrograde endoscope (C)
- Post-dilation inspection showed moderate mucosal disruption without luminal perforation, significant improvement in luminal narrowing, and minimal bleeding
- A 12 French nasogastric tube was placed to maintain luminal patency, and the patient was discharged home the same day
- While the patient regained the ability to swallow liquids, a second dilation session was required to achieve complete relief of dysphagia

Discussion

- Most CARD procedures are performed by gastroenterologists to treat post-radiation luminal obstruction
- However, this case demonstrates CARD can be performed collaboratively with surgeons, which can be helpful in the setting of post-operative anatomy
- CARD is effective, safe, and well-tolerated, with a lower risk of complications (perforation, pneumomediastinum) compared to blind antegrade dilation
- High technical success rates (83%) and frequent dysphagia resolution (44%) make CARD a preferred approach to restore luminal patency in patients with severe radiation-induced dysphagia

Reference

Bertolini R, Meyenberger C, Putora PM, Albrecht F, Broglie MA, Stoeckli SJ, Sulz MC. Endoscopic dilation of complete oesophageal obstructions with a combined antegrade-retrograde rendezvous technique. World J Gastroenterol. 2016 Feb 21;22(7):2366-72.