Outcomes of Esophageal Dilation in Patients with Dysphagia Secondary to Anterior Cervical Osteophytes

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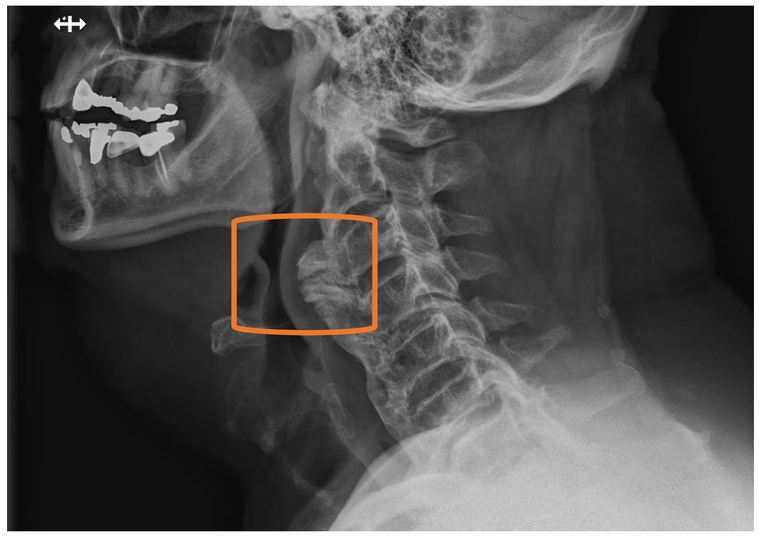
1. Background

- Anterior cervical osteophytes (ACOs) occur in **20–30% of adults >60.** [1]
- Can cause pharyngoesophageal narrowing/compression → **dysphagia, globus, and coughing.**[2]
- **Osteophytectomy** improves dysphagia for many but carries **spine and airway risks.** [3]
- Esophageal dilation is safe and widely used treatment for benign esophageal strictures, but its use in dysphagia caused by ACOs is less well-documented.[4]

Aims

- Assess safety, efficacy, and symptomatic outcomes after esophageal dilation in ACO-associated dysphagia.

Figure 1: Lateral neck X-ray demonstrating a large anterior cervical osteophyte



2. Methods and Material

- Retrospective case series (2014–2024) of patients with reported **Dysphagia + radiologically confirmed ACO** and **underwent esophageal dilation** as initial interventional management.
- **N=8**
- Excluded patients with stroke, trauma, or other comorbidities contributing to dysphagia as well as those who did not undergo dilation.

Primary outcome:

- patient-reported swallowing improvement.

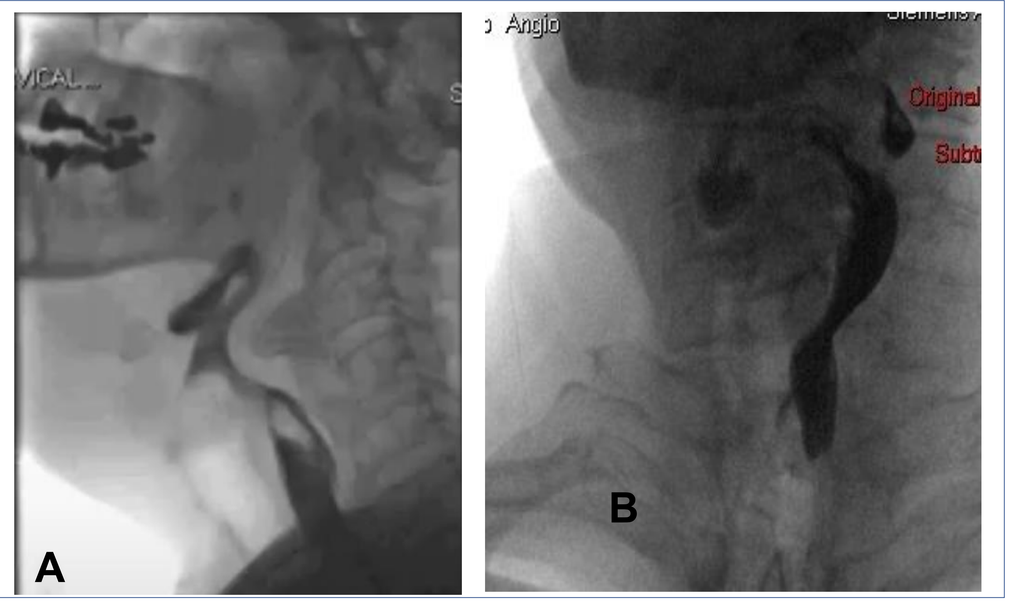
Secondary outcomes:

- Tube feeding, further procedures, weight change, complications.

3. Swallowing Assessment

Figure 2: Videofluoroscopic Swallow Study (VFSS) in a Patient with an ACO

Lateral (A) and anterior–posterior (B) fluoroscopic views during VFSS demonstrate a prominent cervical osteophyte causing posterior pharyngeal wall bulging and disruption of bolus transit. This structural impingement contributes to dysphagia and impaired bolus flow.



4. Results

- **63%** (5/8) **reported swallowing improvement**
  - 37% (3/8) no benefit.
- 63% (5/8) had pre-dilation weight loss; all five stabilized/regained after dilation.
- 1 patient required PEG pre-dilation, and feeding tube was removed after dilation.
- **No major complications reported.**

Figure 3: Schematic of Esophageal Dilation Approaches

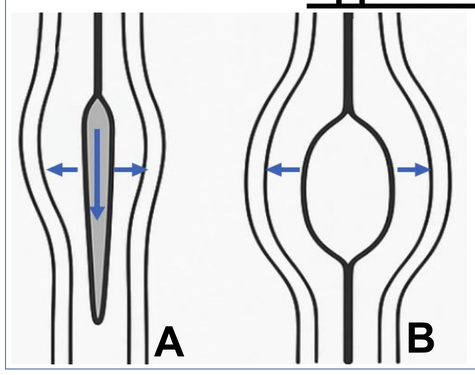


Figure 3: Wire-guided Savary (bougie) dilation (A), which applies longitudinal pressure through a tapered dilator. Balloon dilation (B), which applies radial pressure through an inflatable balloon. Both techniques are shown within the esophageal lumen for contrast.

5. Discussion

- In this series, no perforations or major complications occured, supporting that **careful dilation can be performed safely** in patients with ACOs.
- Symptomatic benefit was seen in the majority of patients, even though ACO represents a fixed extrinsic compression, not a mucosal stricture.
- While dilation does not modify the underlying osteophyte, it may provide a **safe and effective option** for patients who are **poor surgical candidates** or **prefer less invasive intervention.**

6. Conclusion

- Esophageal dilation is a safe procedure for patients with dysphagia due to ACOs, even when the bony protrusion lies directly behind the esophagus.
- This technique offers a low-risk, minimally invasive treatment option that can **improve swallowing symptoms** and **delay or avoid more invasive surgical interventions.**
- This report is limited by small, single-center design without significant power, heterogeneous dilation methods, and subjective outcome.
- Larger studies are needed, but these results support dilation as a **viable first-line or adjunctive therapy** in selected patients with ACO-related dysphagia.

7. References

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