

## Head rotation is effective for dysphagia related to anterior cervical osteophyte: CASE REPORT

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### Background

Anterior cervical osteophytes are generally asymptomatic but can be problematic, often lead to progressive swallowing difficulty in some cases. Dysphagia with anterior cervical osteophyte can be managed through conservative treatments or surgery. Conservative treatments include inflammatory medication, steroids, muscle relaxants, and anti-reflux medication. But there are only few studies that have determined the effects of compensatory technique to improve dysphagia with anterior cervical osteophyte. In this CASE REPORT, we present a case of an elderly man with dysphagia due to huge anterior cervical osteophyte who showed improvement of dysphagia with compensation maneuvers. Case description: A 72-year-old man complaining of swallowing difficulties was referred for a videofluoroscopic swallowing study (VFSS) for the evaluation of dysphagia. He had experienced swallowing discomfort for several years. Specifically, he complained of intermittent aspiration symptom when drinking water, and he felt globus sensation when swallowing solid food. Gag reflex, mastication, and tongue movement evaluations showed normal finding. He did not complain of pain or sensory abnormalities during swallowing. However, a VFSS revealed impaired epiglottic tilting and severe residue around vallecular fossa and pyriform sinuses, leading to after swallow penetration and aspiration (Figure 1A). Incidentally, enlarged cervical vertebrae forming a wedge-shaped prominence narrowing the pharyngeal space was noted. Lateral cervical spine X-ray (Figure 1B) and computed tomography (CT) scan (Figure 1 C, D) revealed large anterior osteophytes at C3-C4 and C5-C6 levels. The C3-C4 osteophyte extended approximately 1.2cm anteriorly Resulting in marked narrowing of the hypopharynx at the level of epiglottis. Flexible endoscopic evaluation of swallowing (FEES) was performed, which also showed severe protrusion of the cervical osteophyte with restricted epiglottic motion and narrowing of pharyngeal space (Figure 2A). As a compensation maneuver, we tried head rotation and chin down. Though chin down position (Figure 2B) or right head rotated position (Figure 2C) showed severe narrowing of pharyngeal space, left side head rotation (Figure 2D) revealed opening of the pharyngeal spaces with the epiglottis no longer obstructed by the osteophyte. Bolus swallowing in left head rotation position allowed for direction of subsequent boluses through the widened pharyngeal spaces without significant residue. However, chin down positioning put the epiglottis in proximity to the pharyngeal wall, thus aggravating pharyngeal residue.

### Conclusion

This CASE REPORT with the FEES images highlights that head rotation compensation can be a simple, yet highly successful in alleviating post swallow bolus residues related to anterior cervical osteophyte by widening the pharyngeal space.

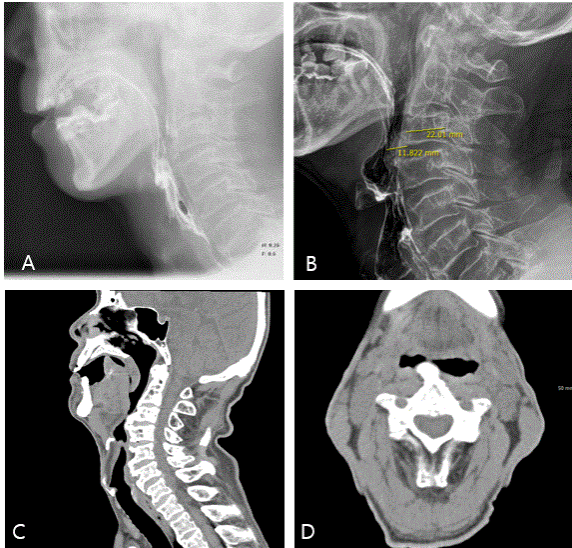


Figure 1. Pooling of barium contrast material in vallecular due to profound mass effect originating from anterior C3-C4 cervical osteophyte in VFSS (A). Large anterior cervical osteophyte in lateral cervical x-ray (B), sagittal view (C) and axial view (D) of CT scan

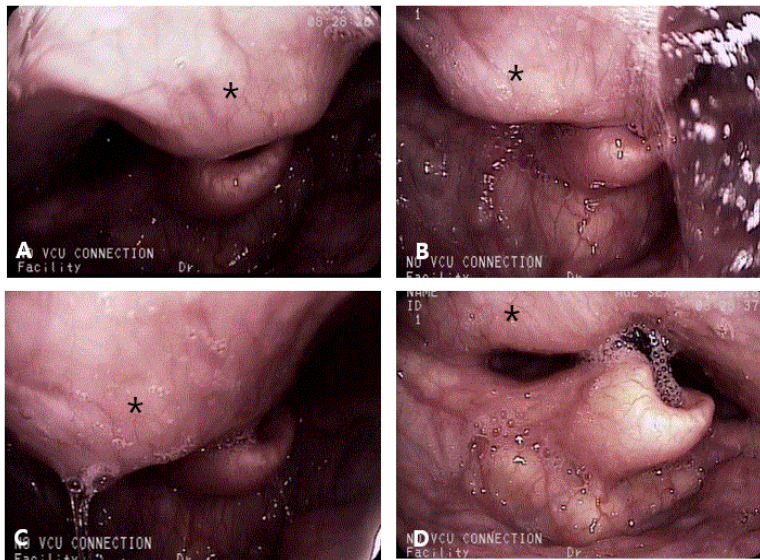


Figure 2. FEES shows the anterior projection (\*) due to huge anterior cervical osteophyte at C3-C4 vertebra level (A). Chin down position (B) and right side head rotation (C) aggravate narrowing of pharyngeal space. Left side head rotation (D) provides widened space for epiglottic tilting.