

Dysphagia Secondary to Anterior Cervical Osteophyte and Cricopharyngeal Dysfunction : A Case Report

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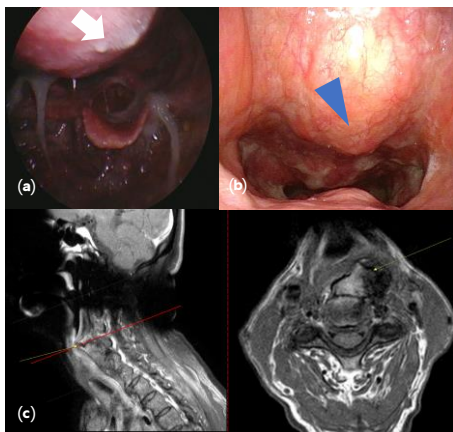
INTRODUCTION

- **Anterior cervical osteophyte (ACO)** can result from degeneration of the cervical spine and rarely causes dysphagia, dysphonia, and dyspnea.
- **Cricopharyngeal dysfunction (CPD)** is a functional disorder in which cricopharyngeus muscle relaxation is impaired or uncoordinated.
- Patient with dysphagia secondary to ACO may require surgical intervention after failure of conservative treatment. Although operative treatment including anterior osteophyctomy has been reported to be effective, some of patients fail to improve.

CASE PRESENTATION

- A 79-year-old male visited the Emergency Department with the chief complaint of progressive dysphagia, which began approximately 2 years ago and worsened for 3 days.
- He had visited Department of Pulmonology, Otolaryngology, and Gastroenterology due to progressive odynophagia for 2 years and had been diagnosed with ACO.

Evaluation before visiting Emergency Department.



(a) Laryngoscopy showed bulging of the posterior pharyngeal wall (arrow). (b) Gastrofibroscopy showed external compression of esophageal wall (arrowhead). (c) Magnetic resonance imaging showed anterior cervical osteophytes from C2 to C7 compressing pharynx and larynx.

- **Past medical history**
 - ✓ Stroke/Neuromuscular disease/ Parkinsonism (-/-)
 - ✓ Vocal cord palsy (-)
 - ✓ DM (+), Prostate cancer (+)
- **Review of system**
 - ✓ Cough/Sputum (+/+)
 - ✓ Desaturation/Cyanosis (-/-)
 - ✓ Dyspnea (+), Hoarseness (-)
- **Clinical swallowing examination**
 - ✓ Lip sealing, Mastication, Mouth opening : intact
 - ✓ Tongue movement/strength : intact
 - ✓ Gag reflex : present/present
 - ✓ Drooling/Wet voice (-/+)
 - ✓ Laryngeal elevation: **insufficient**
 - ✓ Swallowing reflex: **delayed**

Clinical course

Preoperative		<ul style="list-style-type: none"> ✓ Insufficient epiglottic closure and obstruction of bolus passage ✓ Laryngeal aspiration with curd-type yoghurt ✓ Tube feeding recommended
Anterior cervical osteophyctomy, C4-5		
POD #2		<ul style="list-style-type: none"> ✓ Post operative prevertebral soft tissue edema ✓ Newly noted cricopharyngeal dysfunction ✓ Laryngeal aspiration with liquid 2cc ✓ Tube feeding recommended.
POD #5		Rehabilitative dysphagia therapy started
POD #33		<ul style="list-style-type: none"> ✓ Improvement in the prevertebral soft tissue edema ✓ Still noted cricopharyngeal dysfunction ✓ Large aspiration with liquid 2cc
POD #65, POD#104		<ul style="list-style-type: none"> ✓ Gradual improvement in the cricopharyngeal dysfunction ✓ Only penetration with yoghurt ✓ Modified diet recommended

- After assessment of swallowing function, osteophyte resection operation was performed.
- After operation, videofluoroscopic swallowing study revealed cricopharyngeal dysfunction combined with prevertebral soft tissue edema.
- Rehabilitative dysphagia therapy was conducted. And eventually, cricopharyngeal dysfunction and dysphagia showed much improvement.

CONCLUSION

- Surveillance through serial video fluoroscopic swallowing studies in patients with dysphagia secondary to ACO after surgical intervention may be sensitive and effective for detecting dysphagia and elucidating its underlying mechanism and reveal clues to solving them.
- Patients with dysphagia secondary to ACO may require rehabilitative dysphagia therapy following surgical treatment and can be successfully managed.