



# Anterior Osteophylectomy for Dysphagia and Sleep Apnea in the Presence of DISH

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## Introduction

Diffuse idiopathic skeletal hyperostosis (DISH) is a form of degenerative arthritis in which the ligaments and entheses ossify, forming bridging osteophytes which leads to fusion of the spinal column. DISH is often asymptomatic, but may cause pain and lack of mobility, or more rarely, dysphagia and/or respiratory disturbances.

## Methods

We present the case of a 48-year-old male with 5 years of progressive difficulty swallowing, despite conservative treatment. He lost 30 lbs over the past year. He also reported significant snoring and excessive daytime fatigue. He denied any myelopathic symptoms and was neurologically intact on exam. Imaging demonstrates cervical and thoracic DISH, with large anterior osteophytes bridging C1-2, 3-4 and 4-7 but without spinal cord compression. A barium swallow showed normal motility with significant posterior esophageal compression from C3 to C5.



Barium Swallow showing posterior esophageal compression from C3-5



T2 Sagittal MRI without evidence of spinal cord compression



Radiograph showing pre-operative cervical spine with anterior osteophytes



Sagittal CT showing large anterior bridging osteophytes



Radiograph showing post-operative cervical spine with osteophytic removal



Axial CT at C3 demonstrating anterior osteophyte with significant esophageal compression

## Results

The patient was taken for anterior osteophylectomy from C3-7, which required fiberoptic intubation for airway management and protection of the fused cervical spine. The patient had an immediate response to surgery with complete resolution of dysphagia. He was able to eat a full meal that evening, including meat. On follow-up, he reported complete resolution to the dysphagia with all food types. We elected to defer surgery for the C1-2 osteophyte given the magnitude of the surgical approach to this level, and will treat him conservatively for obstructive sleep apnea. He will be maintained on NSAID therapy for slowing of DISH progression.

## Conclusions

Diffuse idiopathic skeletal hyperostosis can have multiple effects on a patient including the rare observance of dysphagia and obstructive sleep apnea. Osteophytes can be removed surgically to improve quality of life, although conservative methods should be used as first-line treatment or when osteophytes are surgically difficult to access. Surgical resection is dependent upon successful airway management.