

# An Unusual Cause Of Dysphagia

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## Abstract

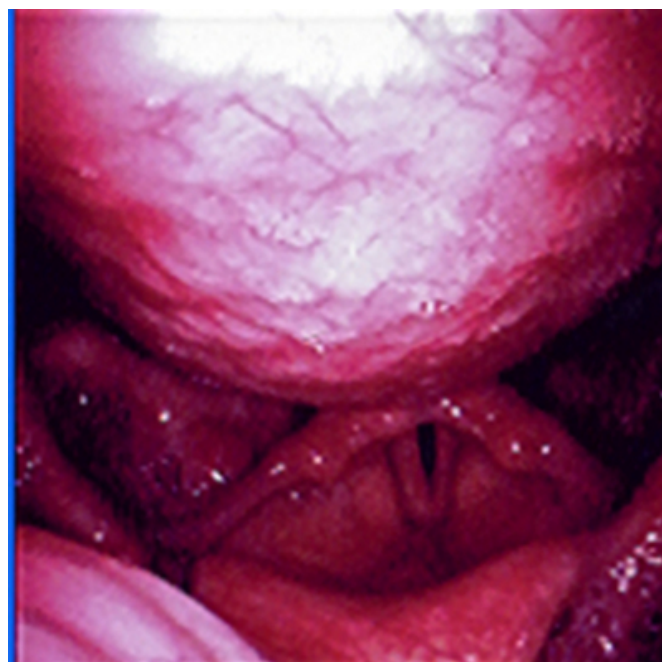
Diffuse idiopathic skeletal hyperostosis (DISH) is a common condition in the aging spine. It is characterized by the presence of excessive ligamentous calcification and ossification at the spinal and extra-spinal location. We report the case of a 64-year-old woman with progressive dysphagia, weight loss and hoarseness of voice due to DISH. Clinical and radiographical findings including rigid endoscopy and Magnetic Resonance Imaging are presented. DISH should be considered an important cause of dysphagia among older adults. Conservative care is the treatment of choice but in severe cases, surgical excision of the hyperostosis may produce an excellent results.

## CASE REPORT

We present an unusual case of dysphagia in a 64 year old Caucasian female. The patient developed progressive dysphagia in the four months leading to her presentation. When we first saw her, she was only able to swallow liquid and had voice hoarseness as well. She had lost 7 kilograms in weight and was also complaining of regurgitation of old food. 3 years prior, she had a total gastrectomy for a gastric carcinoma. She was also known to have Grave's disease and Sjogrens syndrome. She was a smoker of fifteen cigarettes a day.

On examination, she had no palpable cervical nodes. A good range of pain-free neck movement was noted. Flexible nasoendoscopy showed a large rounded posterior hypopharyngeal lesion with a normal looking mucosa. (Figure 1) Barium swallow examination was limited due to aspiration. Nevertheless, this revealed extensive degenerative changes in her cervical spine with osteophytes pressing on the posterior aspect of the pharynx. Videofluoroscopic examination demonstrated swallowing impairment.

Figure 1



A lateral spinal x-ray clearly showed marked anterior hypertrophic new bone formation from the level of C3 to C5. (Figure 2) This was consistent with the appearance of diffuse idiopathic skeletal hyperostosis (DISH). Magnetic Resonance Imaging confirmed this abnormality and further demonstrated hypopharyngeal narrowing and compression. Rigid endoscopy confirmed the bony hard nature of this retropharyngeal lesion which extended from the level of tongue base to cricoid region, displacing the larynx to the right.

**Figure 2**



The patient was referred to the orthopaedic surgeons who performed a Southwick-Robinson approach to the left side of the neck via a transverse skin incision. The vertebral column was exposed and the ossified mass spanning and fusing C2 to C5 was removed with a high speed burr. Post operatively, she developed a prevertebral haematoma which needed surgical drainage and a surgical tracheostomy to secure the airway. She had a protracted healing period and suffered further dysphagia and pain. She was decannulated a month later. On discharge, she was managing normal fluids and a soft diet.

## DISCUSSION

Diffuse idiopathic skeletal hyperostosis (DISH) is a degenerative musculoskeletal disease that frequently occurs in persons aged 50-75 years. The prevalence in the adult

population is 12 to 28 percent.<sup>1</sup> It is common in Caucasians with a male: female ratio of 2:1.<sup>2</sup> DISH is characterized by the presence of excessive ligamentous calcification and ossification at the spinal and extra spinal locations. The aetiology is uncertain. DISH is not a true arthritis as it does not affect the cartilage of joints.<sup>2</sup>

Cervical vertebral hyperostosis whilst common in the general population is usually asymptomatic and only rarely causes dysphagia. Other cervical spine disorders that can cause dysphagia include cervical spinal trauma, vertebral tumour, and ankylosing hyperostosis (Forestier's disease). Obviously, it is important to exclude a concurrent malignancy.

Examination should include a fiberoptic endoscopy of the pharynx and larynx and a neurological examination. A lateral c-spine x-ray is a useful first line investigation. Computerized tomography scanning provides more accurate bony details while magnetic resonance imaging can provide better soft tissue definition. Rigid endoscopy should be performed with caution as the thinned posterior pharyngeal wall increases the risk of perforation.

Conservative management includes a soft diet and anti-inflammatory medications. Failing that, surgery can be considered. Providing that patients are selected well, surgery can produce excellent results.<sup>3</sup> Cervical osteophyctomy may be done via an anterolateral extrapharyngeal approach (with lateral retraction of the carotid sheath and its contents and medial retraction of the laryngopharynx and the esophagus) or via the posterolateral extrapharyngeal approach (with anteromedial retraction of the of the neurovascular and aerodigestive structures).<sup>2</sup> Transpharyngeal approach is also described.<sup>4</sup>

## References

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