Dysphagia: an unusual orthopaedic cause

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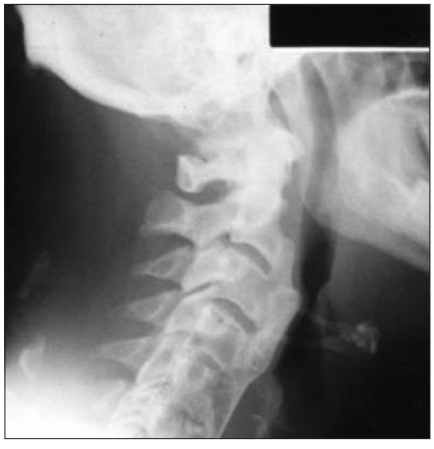
INTRODUCTION

Dysphagia is defined as difficulty in swallowing, and is a common and important symptom because of its multitude of causes. This article reports a case of diffuse idiopathic skeletal hyperostosis (DISH) or Forestier's disease causing complete dysphagia, and discusses the management and the relevance of the presence of degenerative disease of the cervical spine.

Figure 1. Cervical spine X-ray showing huge anterior osteophytes extending from C3–C5.



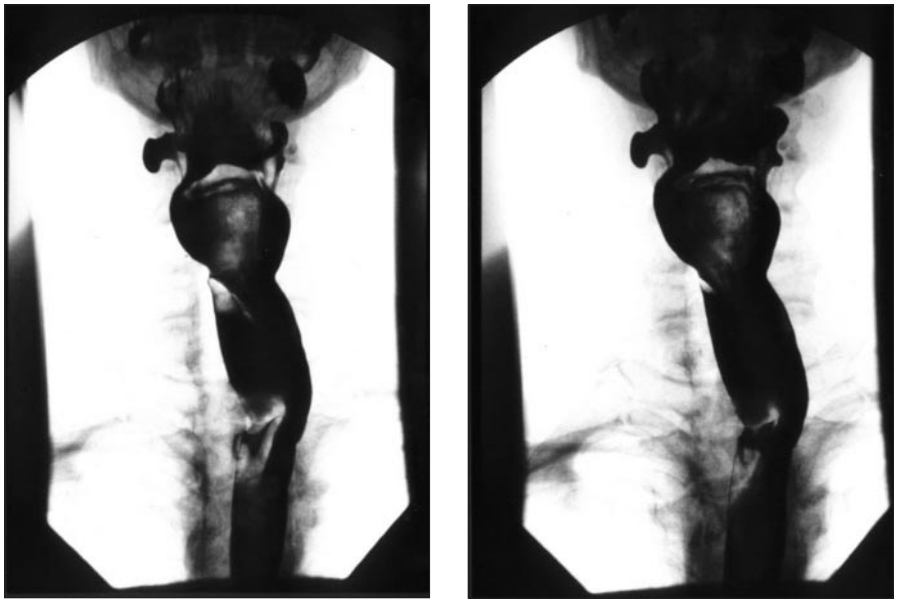


Figure 2. Barium swallow showed an indentation of the oesophagus from C3–C5.

CASE REPORT

A 61-year-old man presented with a 3-year history of progressive dysphagia. This resulted in regurgitation of ingested food contents, resulting in weight loss of 25 kg despite a good appetite. He also reported hoarseness of voice and vertigo, as well as mild neck stiffness.

On examination he was noted to have a 25% decreased range of movement of his cervical spine, however, the remaining examination and neurological assessment of his CNS and upper limbs were unremarkable. He was investigated initially with an oesophagogastroduodenoscopy which revealed an extrinsic compression of the oesophagus at 23–25 cm. He was also found to have a small hiatus hernia, gastritis and duodenitis. This was then followed by cervical spine radiographs (*Figure 1*), a barium swallow (*Figure 2*) and a magnetic resonance imaging scan.

As no other cause was found to account for his dysphagia and his symptoms were severe, he underwent operative exploration of the cervical spine through an anterolateral extrapharyngeal approach.

The peroperative findings were massive anterior osteophytes adherent to an ossified anterior longitudinal ligament between the second to fourth cervical (C2–4) vertebrae. The osteophytes were removed and the ossified anterior longitudinal ligament trimmed down to the C7 level.

The patient made a full recovery from the procedure and within 12 hours he was symptom free and had eaten a full meal. One year after the procedure he remained asymptomatic.

DISCUSSION

DISH or Forestier's disease is a common disorder of unknown aetiology which is characterized by back pain and spinal stiffness. The condition is recognized by the presence of flowing 'ossification' along the anterolateral margins of at least four contiguous vertebrae and the absence of changes consistent with spondyloarthropathy or degenerative spondylosis (Forestier and Lagier, 1971; Oga et al, 1993; Belanger and Rowe, 2001). It is less common in the cervical and lumbar spine than the thoracic spine.

The aetiologies of dysphagia are broad. However, they can be classified into pharyngo-oesophageal disorders, oesophageal disorders (which can be divided into motor and mechanical causes), and extrinsic causes having a pressure effect on the oesophagus.

While anterior cervical hyperostosis is common in the elderly, it is rarely prominent enough to cause dysphagia. Other spinal manifestations of DISH include spinal canal stenosis, cervical

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myelopathy and dense spinal cord injury resulting from minor trauma. However, there may be a delay in the diagnosis because the patient often has a baseline level of pain and the injury may be trivial. Extraspinal manifestations are numerous, but include an increased risk of heterotropic ossification after total hip arthroplasty.

Painful dysphagia is an indication for surgery, particularly if conservative measures fail and dysphagia is complete (Flynn, 1991). In DISH, the cervical discs are not implicated, but in degenerative disease of the cervical spine, discectomy and/or fusion is indicated, as in these cases it is the most important factor in the development of anterior osteophytes (Mineo et al, 2001).

Although a rare diagnosis, DISH is an important cause of dysphagia which needs to be considered once careful investigation excludes an oesophageal lesion or neurological cause. This is primarily because operative treatment can be highly successful with excellent short- and long-term symptomatic relief of dysphagia. **HM**

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