

Swallowing Difficulties from “DISH-phagia”

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A 68-year-old previously healthy man presented for evaluation of painless dysphagia. He had experienced progressive intolerance to solid foods over about 2 years. This was accompanied by episodes of choking and complete loss of voice, although he had no history of clinical aspiration or regurgitation. He denied neck or back pain and had no peripheral joint complaints. His medical history, family history, and social history were unremarkable, as was his physical examination including detailed neurologic evaluation.

Laboratory studies including chemistry and liver profiles, complete blood count, thyroid function tests, and urinalysis were normal.

Lateral cervical spine radiographs revealed ankylosis of the lower cervical spine with large anterior bony excrescences at C2/C3 and C3/C4 and flowing hyperostosis along the anterior vertebral bodies of C4 to C7 (Figure 1). A modified barium swallow showed complete absence of inversion of the epiglottis secondary to the large bony mass at that



Figure 1. Lateral cervical spine radiographs reveal ankylosis of the lower cervical spine with large anterior bony excrescences at C2/C3 and C3/C4 and flowing hyperostosis along the anterior vertebral bodies of C4 to C7.

level (Figure 2). Pharyngeal weakness due to mechanical compression of the laryngeal nerve was also suspected. T1 weighted sagittal magnetic resonance images confirmed the anterior bony excrescences at C3-C4 encroaching on the posterior hypopharynx, as well as partial ankylosis across the discs of C4, C5, C6, and T1. There was anterior extradural narrowing of the spinal canal at C3-C4 and C6-C7, with mild dural sac compression (Figure 3, arrow).

These findings were compatible with diffuse idiopathic skeletal hyperostosis (DISH), or Forestier's disease^{1,2}, a noninflammatory disease of unknown etiology characterized by ossification of anterior spinal ligaments and extraspinal entheses. The diagnosis is made radiographically³, and affected individuals are often asymptomatic. DISH-related swallowing difficulties are relatively common, found in up to one-quarter of patients, and have been colloquially termed "DISH-phagia"⁴. Mechanical compression due to one or more large hyperostoses is a common mechanism for dysphagia, although smaller hyperostoses at the level of the cricoid cartilage where the esophagus is fixed (often C5-C6) can cause symptoms as well⁵. Inflammation with adjacent soft tissue swelling may also contribute. This patient was



Figure 2. A barium swallow indicates absence of inversion of the epiglottis secondary to the large bony mass.



Figure 3. Anterior extradural narrowing of the spinal canal at C3-C4 and C6-C7, with mild dural sac compression (arrow).

referred to a therapist for exercises to improve his swallowing function, and to a neurosurgeon for consideration of resection of the symptomatic excrescences^{6,7}.

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