

Dysphagia secondary to esophageal compression by cervical osteophytes: A case report

An elderly patient's swallowing problems were resolved by the surgical removal of osteophytes extending from C5 to C7.

ABSTRACT: An 85-year-old man presented with weight loss and progressive dysphagia that was found to be due to cervical hyperostosis. Although cervical osteophytes are relatively common in their own right, they are rarely symptomatic. While conservative management is an option for most patients, the literature suggests that those with severe symptoms can benefit from surgery. The patient in this case experienced a rapid resolution of dysphagia following the resection of protuberant cervical osteophytes using a standard anterior approach. Long-term follow-up data from similar cases have demonstrated no recurrence in symptoms following the procedure.

Case data

An 85-year-old previously healthy man was referred for an orthopaedic consultation after he presented with a several-year history of progressive dysphagia along with weight loss of 7.5 kilograms over the previous 6 months. A CT scan of the neck with contrast revealed prominent anterior vertebral osteophytes extending from C5 to C7 and associated moderate esophageal deviation below the level of the thyroid cartilage (Figure 1). A barium swallow test confirmed that these osteophytes were encroaching on the esophagus. A moderate amount of aspiration was observed with consumption of liquids, and aspiration to a lesser degree was observed with consumption of viscous foods. During this investigation, the patient gagged and vomited, and reiterated that he had been having similar difficulty with eating and drinking more recently. His medical history was unremarkable. He was a nonsmoker and did not take any medications. On examination, he appeared cachectic and depressed. No cervical mass was palpable, but he had a markedly reduced range of motion in his neck.

The oropharyngeal cavity appeared normal and findings from the rest of the examination were unremarkable.

Given the patient's recent weight loss and the refractory nature of his dysphagia, surgical resection of the osteophytes was recommended. The operation was completed using an anterior approach and was without complication. The patient remained in hospital for 2 days postoperatively. During this time, he progressively increased his intake by mouth and was able to swallow liquids and soft solid foods prior to discharge. An X-ray image (Figure 2) confirmed the successful removal of the osteophytes and a repeat barium swallow test demonstrated the resolution of aspiration problems.

Discussion

Dysphagia secondary to cervical osteophytes is an overall rare event.

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However, there are documented cases of dysphagia, dysphonia, dyspnea, and obstructive sleep apnea secondary to hyperostosis of the cervical spine.¹⁻³ A retrospective study of 376 patients over age 60 who were being evaluated for dysphagia demonstrated that 10% of cases were determined to be secondary to the protuberance of cervical osteophytes.⁴

In this case, the most probable diagnosis was diffuse idiopathic skeletal hyperostosis (DISH or Forestier disease), even though the radiographic diagnostic criteria were not strictly met. DISH is characterized by continuous ossification over the anterolateral aspects of at least four contiguous vertebral bodies with the preservation of vertebral disc height.⁵ The pathology most commonly involves the thoracic vertebrae, but may also include the cervical and lumbar spine.⁶ The incidence is thought to be between 6% and 14%, and affects primarily males over age 50. The incidence of dysphagia secondary to DISH is unknown; however, a recent review identified a total of 73 reported cases in the English literature.⁷

The treatment of dysphagia as a result of cervical hyperostosis in the context of DISH is conservative or surgical.⁷⁻⁹ Patients who have minimally bothersome symptoms should be counseled on dietary management, which consists of consuming soft foods and liquids.^{8,9} The involvement of a dietitian may be helpful in monitoring appropriate caloric intake. NSAIDs, steroids, and muscle relaxants have also been reported as occasionally helpful in reducing symptoms.⁹ Where conservative management fails to control symptoms or weight loss is observed, surgery may be considered. The majority of reports have described using a standard anterior approach for the resection of cervical

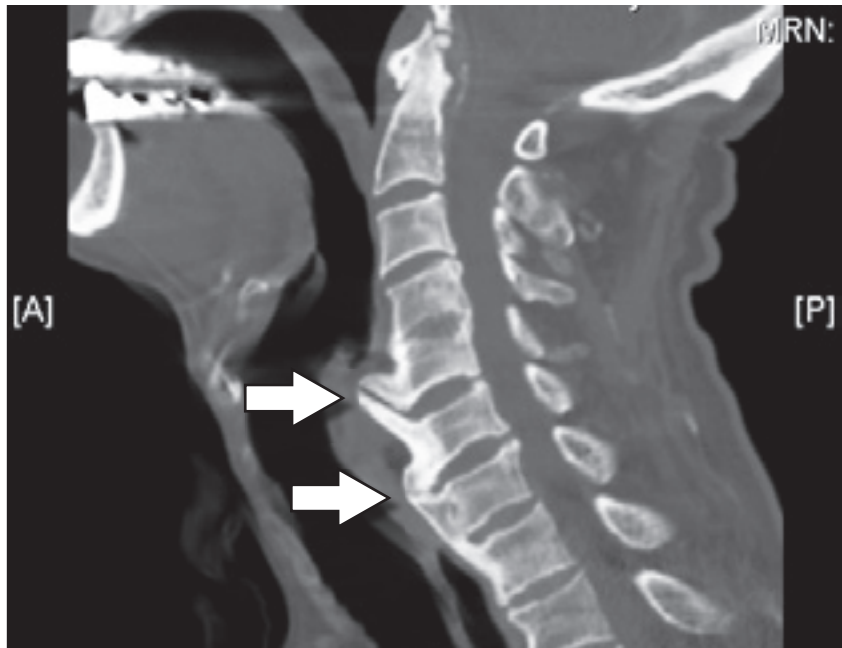


Figure 1. Sagittal CT image of the cervical spine showing large anterior osteophytes extending from C5 to C7.



Figure 2. Postoperative lateral X-ray image of the cervical spine confirming successful removal of the C5 to C6 and C6 to C7 osteophytes.

Surgical resection of the osteophytes using an anterior approach led to resolution of the dysphagia within a few days of the procedure.

osteophytes. Urrutia and colleagues reported on five patients who had undergone uncomplicated osteophyte resection.⁹ Complete resolution of dysphagia was reported at 5 to 20 days after surgery, with no recurrence after an average follow-up time of 59 months. Similar results have been reported by others,¹⁰⁻¹² although a number of complications, such as hematoma, recurrent laryngeal nerve palsy, and esophageal perforation, are possible.⁸

Summary

An 85-year-old man presenting with progressive dysphagia and associated weight loss was found to have cervical hyperostosis. This relatively rare cause of dysphagia occurs most commonly in males over age 50. As reported in other similar cases, we found that surgical resection of the osteophytes using an anterior approach led to resolution of the dysphagia within

a few days of the procedure. The literature indicates that the majority of patients treated surgically for dysphagia recover successfully without recurrence of their symptoms.

Competing interests

None declared.

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