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Oropharyngeal Dysphagia & Aspiration in a 63-Year-Old Man- A Case Report

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Abstract **Case Report**

Introduction: Dysphagia due to nonmalignant causes is not an uncommon occurrence in patients over the age of 60. Males are more affected than the females. It can be associated with significant morbidity and mortality especially as it increases the risk for malnutrition, and pneumonias due to aspiration etc. ***Case Presentation***: We present this rare case of worsening dysphagia and episodes of choking in a 63year old male due to large anterior cervical osteophytes. X-ray and flexible laryngoscopy revealed a large bulge over the posterior pharyngeal wall in the midline. ***Conclusion***: Dysphagia in the elderly can lead to increased morbidity and life-threatening complications. Anterior osteophytes are found in nearly 20% to30% of the elderly population but rarely cause dysphagia. However, in some cases especially when associated with diffuse idiopathic skeletal hyperostosis (DISH/ Forestier's disease) and ankylosing spondylitis these can cause severe dysphagia. In many cases of symptomatic anterior osteophytes surgery is considered an ultimate measure to relieve symptoms, decrease mortality, and improve the quality of life. We did a thorough literature search to know the prevalence and management of dysphagia due to anterior osteophytes.

Keywords: Dysphagia, cervical osteophytes, flexible laryngoscopy, Anterior osteophytes, DISH/ Forestier's disease.

INTRODUCTION

The prevalence of dysphagia in adults could be due to a multitude of reasons. Oropharangeal dysphagia is now recognized as a serious geriatric syndrome and is seen in increasing number of cases among the elderly. Geriatric syndrome was a term originally coined in 1909 and is defined as "Clinical conditions in older persons that do not fit into disease categories but are highly prevalent in old age, multifactorial, associated with multiple co-morbidities and poor outcomes and are only treatable when a multidimensional approach is used."

Oropharyngeal dysphagia can be due to neurodegenerative disorders like Alzheimer's, Parkinson's disease, or in older patients who have had a stroke. Though anterior osteophytes are very much prevalent in the geriatric population due to either trauma, degenerative changes of the spine due to old age, diffuse idiopathic skeletal osteophytosis etc., very few present with symptoms of dysphagia. Here we are presenting a case of progressive dysphagia due to a combination of nonmalignant factors.

Patient Characteristics: Patient Characteristics

Our patient is a 63-year-old male, civil engineer by profession, working as a head of technical department in a quasi-government corporation. He is married and well settled with two grown up sons. An ex-smoker, he is said to have quit smoking over 10 years ago after having smoked a pack a day for nearly 42 years. He is a known diabetic and hyperlipidemic for about 10 years and his blood sugars and lipids were well controlled on oral agents. He also had moderate to severe cervical vertebral degeneration and had some ongoing pain and limitation of his cervical spinal movements.

He presented with difficulty swallowing, recurrent choking spells, and a feeling of something stuck in his throat for a long time. He choked at every meal and sometimes went into severe bouts of coughing while eating or drinking. Difficulty swallowing was present mainly for solids, but he choked on solids and liquids as well. He had seen an ENT specialist and a gastroenterologist who concurred that it was due to his GERD and doubled the dose of acid suppressant he was on. But according to the patient the symptoms

progressively got worse. His GERD was well controlled even prior to doubling the dose and the increased dose had no effect on his difficulty swallowing, choking and foreign body sensation. He woke up many a times at night due to aspiration and felt his quality of life slipping away.

Examination Findings:

He sought another ENT surgeon's opinion at a private hospital, who used a flexible laryngoscope and noticed a large swelling on the posterior pharyngeal wall which interfered with proper closure of the epiglottis on swallowing. Barium swallow showed a flowing ossification along the anterior longitudinal ligament at the levels of C4, C5, C6 and C7. Otherwise, the barium flowed freely through the other pharyngeal, esophageal segments. The walls of the pharynx and esophagus displayed no evidence of irregularity or mucosal destruction. There were no filling defects, diverticula, or hiatus hernia. An urgent MRI was done and confirmed a large anterior osteophyte protruding into the posterior pharyngeal wall. Patient came to see us, his primary care physicians at the health center. Our general clinical exam and limited ENT & neurological exams were normal. As his x-ray C spine was outdated, we repeated x-ray of his cervical spine (Pic 1).

Pic 1: Cervical spine

Only the lateral extension and flexion images are available for report. Extensive calcification of the anterior longitudinal ligament from C4 down to C7 is noted. There is suspicion of fracture of the calcified anterior longitudinal ligament at the C4-C5 level. There is narrowing of the C5-C6 and C6-C7 intervertebral discs. No gross instability detected in the extension or flexion images.

Clinical Hypothesis:

In this case the dysphagia was due to a mechanical cause, a large anterior osteophyte pushing on his esophagus as seen on his cervical spine imaging. Patient was diagnosed with DISH (Diffuse Idiopathic Skeletal Hyperostosis).

Pic 2: CT Spine cervical

Provided clinical history: Known patient with DISH
Findings:
Straightening of the cervical spine curvature.
Preserved height and alignment of the cervical vertebrae.
Evidence of spondylo- degenerative changes with extensive exuberant following anterior osteophyte which are suggestive of DISH.
No primary bony cervical spinal canal stenosis.
Multiple non-united spinous process fracture at C5, C6 and C7 levels.
Posterior disc osteophyte bulge complex involving C4-5, C5-6 C6-7and T1-2.
No paravertebral soft tissue masses or collection.
For clinical correlation.

Pic 3: MRI Findings

Straightening of the cervical spine curvature.
Preserved alignment of cervical vertebrae.
Spondylitic degenerative changes with marginal exuberant anterior and posterior osteophyte formation and subchondral fatty marrow degenerative changes. Facet joint arthropathy and ligamentum flavum thickening.
No primary bony cervical spine canal stenosis.

Intervention

Patient was referred to the spine clinic on an urgent basis. He had repeat CT (Pic 2), MRI (Pic 3) and was scheduled for surgery under a very eminent spine surgeon at the Govt Tertiary Care Hospital. He underwent anterior cervical microscopic C3-C4 decompression, discectomy (ACDF), and fusion with excision of the anterior osteophyte. A peek cage was inserted anteriorly for fusion (Pic 4).

Pic 4: Cervical spine

Straightening of the cervical spine. Follow up cage placement at the level of C3-C4 showing satisfactory alignment Moderate to severe degenerative spondylitic changes at the level of C5 down to C7 cage in place.

Outcome

Patient had severe degenerative C3-4disc disease with a significant anterior osteophyte formation. He had anterior cervical microscopic C3-4 decompression, discectomy, and fusion with excision of the anterior osteophyte. A cervical collar was put on. Patient was put on soft diet to be progressed as tolerated and his swallowing improved from the first post-operative day itself.

Literature Review

Oropharyngeal dysphagia (OD) is a condition recognized by the World Health Organization and defined as the difficulty or inability to move a bolus safely and effectively from the oral cavity to the esophagus, and can include aspirations, choking, and residue. We searched PubMed for "anterior cervical osteophytes" and came up with several hits. Though anterior cervical osteophytes were common in the elderly, they rarely caused dysphagia and other symptoms. In the patients that are symptomatic, the symptoms are directly related to the size of the osteophyte. There are many conditions that cause osteophytes including trauma, surgery, degenerative spine, diffuse idiopathic skeletal osteophytosis and Ankylosing spondylitis, of which the latter two are usually associated with symptoms. Majority of the times they can be managed conservatively but, in some cases, where the symptoms are severe, surgery is the way to go. There have been instances reported where a recurrence occurred after excision of osteophytes.

DISCUSSION

Osteophytes can occur any where in the spine and anterior cervical osteophytes are prevalent in the elderly, with 75% in those over the age of 65 years. However majority are usually asymptomatic. But in a small group of elderly, usually males, they can cause symptoms like dysphagia, dyspnea, dysphonia, and aspiration. Any patient over the age of 60 years complaining of dysphagia should be thoroughly investigated to rule out causes including cervical osteophytes

Authors' Contribution

RM, AA & AS the authors have all participated in collection of data, literature review, preparation of this case study and approval of the final manuscript.

Conflict of Interest: No conflict of interest.

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