

Case Report

Osteophyte as Cause of Dysphagia After Tongue Base Resection - Case Report

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Introduction

Osteophytes are an abnormal bone growth found next to the vertebral joints, also called popularly as bone spur. The occurrence of osteophyte in the anterior face of cervical column is common, being found in 20% to 30% of the older population¹ diagnosed more than 50 years old and with predominance of the masculine sex. It is caused by an abnormal growth of the vertebrae as an attempt to stabilize the degeneration age causes to cervical column.

Generally they are asymptomatic, but the most frequently symptoms presented are: sensation of a strange body in the throat, difficulties to deglute solids, weight loss and more rarely dysphonia.²

In the literature, the cases diagnosed as cervical osteophyte present mainly dysphagia complaints.³⁻⁷

Some of the causes of dysphagias due to osteophytes can be due to compression of the bone growth on pharynx or esophagus at vertebrae C4 and C6 and the impossibility of physiological retroversion of epiglottis on the entrance of the larynx during the deglutition at C3 and C4.⁸

In osteophyte cases, complementary examinations assist and confirm diagnosis. One of the possibilities is the videodeglutogram, an efficient method for evaluation of the deglutition that conveys crucial information.⁹

The treatment indicated by some authors is initially drug based, for it is conservative; when this is not satisfactory surgical treatment is recommended.^{7, 10}

Despite osteophyte is not a rare event in the medical practice, we do not find in literature accounts of the possible phonoaudiologic intervention in complaints related to deglutition alterations. The knowledge of this fact for correct diagnosis on the part of the team that assists the patient is vital, especially in the etiological diagnosis of dysphagias and in the orientation of the treatment. The role of phonoaudiology in these cases will depend on the medical, drug or surgical

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treatment used, making possible interventions regarding orientations in terms of food consistency more indicated for each case and maneuvers able to make deglutition easier.

On the other hand, in cases of cancer affecting digestive superior aerial tracts chirurgically treated, one must consider the possibility of osteophyte as a diagnostic differential of relapse.

The aim of this case report is retrospectively describe a case of tongue basis cancer chirurgically treated with complaints of delayed dysphagia and associate osteophyte.

Case Report

Patient of the masculine sex, registered in the Service of Surgery of Head and Neck and in the Service of Phonoaudiology of the Heliópolis Hospital, 81 years, with initial diagnosis of ulcerous-infiltrative injury of glosso-amygdalar ridge, stadiated as T2N0M0 for spinocellular invasive degree II carcinoma.

In July, 1996 it was submitted to resection of hemi base of the right half of the tongue and right suprahomoeoid dissection. Operated again in September 1996 for withdrawal and replacement of jaw miniplate, sequestrectomy and graft. He remained under oncologic control of illness during seven years without illness and then presented dysphagia complaint.

Indirect laryngoscopy showed salivary stasis, without injuries in larynx and hipopharinx and in the high digestive endoscopy one did not observe alterations. However, he presented high right jugular-carotid lymphonode, stadiated as T0N1M0. The presence of this cervical metastasis did not justify dysphagia complaint and the patient was directed to phonotherapy for evaluation in July, 2003. Until then, he had not had phonoaudiologic accompaniment as he had not presented complaints.

In clinical phonoaudiologic evaluation of deglutition cough was observed after swallowing food having all consistencies (solid, pasty and liquid). When submitted to video-fluoroscopy a lesion of the posterior wall of pharynx at C4 and C5 was observed, making food passage difficult, with diagnostic hypothesis of osteophyte. During the examination, in the food deglutition of liquid,

pasty and solid consistency stasis in region of pear-shaped recesses with aspiration was observed exactly after deglutition, remaining even after multiple deglutitions. As a conclusion, video-fluoroscopy showed alteration in the pharyngeal phase of deglutition. These findings were confirmed in the radiographic examinations of cervical column with marginal osteophytes (osteophytes or Forestier Syndrome), being the most prominent greater than one centimeter at C4 and C5, conditioning a lesion in the posterior wall of cervical esophagus and food stasis (Figures 1 and 2).

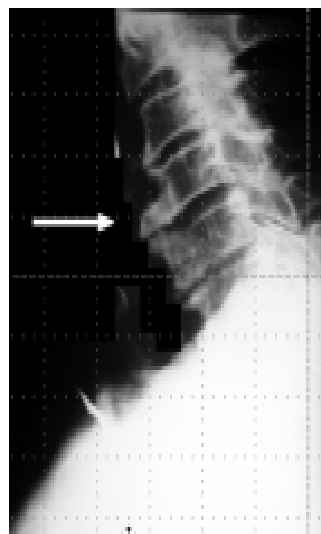


Figure 1 - Osteophyte with more than 1 cm between cervical vertebrae



Figure 2 - First stage of deglutition

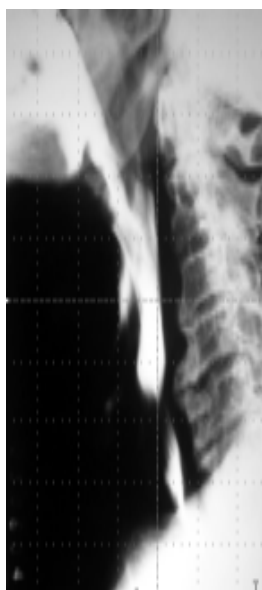


Figure 3 – Second stage of deglutition showing the esophagus back wall compression because of osteophyte presence



Figure 4 – Third stage of deglutition with the incidence of alimentary stasis at C4 and C5

Phonoaudiologic intervention oriented the patient to carry through multiple deglutitions, head postural maneuvers, cleaning maneuvers and a greater optimization of the verbal phase with control and propulsion of the food bolus for the pharyngeal phase of deglutition in the attempt to minimize deglutition difficulties.^{11,12}

Due to the patient's unfavorable conditions (advanced age, cervical metastasis and gradual

degeneration of the general condition in this period) osteophyte surgery was not indicated.

In December 2003, the patient was submitted to surgery for resection of cervical metastasis, without compromising muscular or neural structure that intervened with the dysphagia condition.

He submitted to postoperative x-ray (6600cGy) from January 26 to March 24, 2004 and presented after this period a little xerostomy. In May 2004, medical evaluation observed an improvement of the general condition, with no injuries identified in the examination and with weight gain. In the ulterior phonoaudiologic exam, in this period, persistence of the dysphagia was observed, although discrete improvement in the compensation of the deglutition, with maneuver of delayed cleanness after ingestion of liquids. Phonoaudiologic orientations had been kept. In June 2004 the patient returned with weight loss, keeping dysphagia complaint and reporting a worsening of his condition. A new videofluoroscopy showed an alteration in the pharyngeal and esophagic phases of deglutition, an increase of the size of the osteophyte, and aspiration of liquid during and after deglutition. He had adequate rise of larynx, but a retrocricoid cervical osteophytosis at C4 and C5 was observed that made difficult food passage trough esophagic superior sphincter t, causing stasis in pear-shaped recesses and aspiration of food after deglutition.

In the medical evaluation in the same period, an extensive high cervical jugular-carotid metastasis was observed, fixed in deep regions and there was no further therapeutic possibility for the patient, who died soon after.

The project of this research was approved by the Ethics Research Committee of Heliópolis Hospital under no. 307.

Discussion

Data on the masculine genre, age and localization of the osteophyte are compatible with literature.¹

The main complaint of choke with all food consistencies and the presence of cough mainly after deglutition of liquids can be caused by the osteophytes, and suspecting of the presence of

this event must be remembered both by the medical team and by the phonoaudiologic one before complaints of dysphagia, independently of previous treatments.³⁻⁷

In the same way, video-fluoroscopic findings that pointed the osteophyte as a barrier to the passage of food through the superior esophagic sphincter, causing stasis in pear-shaped recesses and contributing to aspiration after deglutition, are also cited by other authors that points that the osteophyte at C3 and C6 compresses the esophagus and prevents efficient deglutition.⁸

This case called from the beginning the attention of the medical and phonoaudiologic team because of the delayed dysphagia complaint, a possible presence of relapse or a second esophagic injury. This suspicion was strengthened by the persistence and gradual evolution of the complaint, and was not confirmed by the medical team.

We must emphasize that the complaint of dysphagia in this case does not seem to be associated only to the presence or gradual increase of the osteophyte, despite this is the most important finding in this patient. However, we can assume that tongue basis resection to which the patient was submitted favored on time the reduction of the anteroposterior propulsion in the passage from oral to pharyngeal phase, as pointed by the literatura¹³, with the consequent food stasis in vallecula and dysphagia appearance, demanding the increase of the number of deglutitions so that pharyngeal emptying was possible. This stasis would also have as a consequence laryngeal aspiration of food determining cough. This analysis is reinforced by the fact that dysphagia complaint to have occurred gradually and not being present in tongue basis resection's postoperative period, despite the osteophytes probably were already present.

It seems, therefore, that the presence of the osteophyte and its gradual growth could be the cause of the gradual dysphagia, a condition aggravated in the long run because of the limitation imposed by tongue base resection in the transition from oral phase to pharyngeal phase, being these two events associated.

There are no suggestions that the presence of cervical metastasis compromised the musculature or the innervations responsible for

deglutition. However, the increase of the cervical mass and the reserved prognostic with the consequent degeneration of the general state could have contributed for the reported food difficulties in the last exams.

It must be pointed out that the patient was not physically restricted to chronological age, and presented all the time an excellent cognition, preserved motor functions, without suggestion of senility nor neurological compromises due to aging and able to contribute to the described condition. He did not have suggestive signals of an associated neurogenic dysphagia, but only a mechanic dysphagia.

We emphasize the necessity to consider the possibility of osteophytes as dysphagia cause after partial tongue resections, especially in tongue base ones, in aged patients of the masculine sex.

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