

Bilateral giant styloid process: Case report

Bilateral dev styloid çıkıntısı: Olgu sunumu

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Abstract

Eagle's syndrome occurs when an elongated styloid process or calcified stylohyoid ligament causes recurrent foreign body sensation or sore throat, neck pain, swallowing difficulty or facial pain. Also, throat pain may radiate to the ipsilateral ear. The treatment of Eagle's syndrome is primarily surgical. The elongated styloid process can be excised via intraoral or external cervical approach. A 29-year-old male patient with bilateral, extremely elongated styloid processes, causing the symptoms of Eagle's syndrome reported with the relevant literature review.

Keywords: Giant styloid process, Bilateral, Eagle syndrome

Öz

Eagle sendromu uzamış bir styloid çıkıntı veya kalsifiye stylohyoid ligamanın tekrarlayan yabancı cisim hissi veya boğaz ağrısı, boyun ağrısı, yutma güçlüğü veya yüz ağrısına neden olduğu durumlarda ortaya çıkar. Ayrıca boğaz ağrısı aynı taraftaki kulağa yansiyabilir. Eagle sendromu'nun tedavisi öncelikle cerrahidir. Uzamış styloid proses intraoral veya eksternal servikal yaklaşımla eksize edilebilir. İki taraflı, aşırı uzamış styloid prosesleri olan ve Eagle sendromu'na neden olan 29 yaşında erkek hasta, ilgili literatür taraması ile bildirildi.

Anahtar kelimeler: Dev stiloid çıkıntı, Bilateral, Eagle sendromu

Introduction

Eagle's syndrome is defined as symptomatic prolongation of the styloid process (SP) or calcification of the stylohyoid and stylomandibular ligament [1]. Symptomatology, clinical, radiological diagnosis and treatment related to elongated styloid process were first described by WW Eagle in 1937 [2]. Eagle has reported that the styloid process is long in 4 out of every 100 patients as a result of various studies. However, only 4% of these cases are symptomatic [3].

The stylohyoid complex consists of the styloid process, the stylohyoid ligament, and the small horn of the hyoid bone. Embryologically, these structures, especially the styloid process, develop from the second branchial arch, Reichert cartilage [4]. Eagle's syndrome can be referred to us with non-specific complaints such as sore throat, earache, foreign body sensation in the throat. Symptoms that cause us to suspect Eagle's syndrome include persistent sore throat during swallowing, chewing, head rotation and tongue movements [5].

We aim to present our case, which is bilateral longest styloid process in the literature and long enough to be articulated with hyoid bone, due to this feature, we think it will contribute to the literature.

Case presentation

A twenty nine-year-old male patient was admitted to our hospital with a feeling of stinging on the right side of his neck for about 6 months and a constant need for swallowing. The patient had no symptoms of weight loss, hoarseness, breathing problems and reflux complaints. No characteristics were found in the personal and family history but he was a cage fighter as a hobby. There were no pathological findings in the nose, ear and oropharynx examination. Stiffness and sensitivity were determined in the right tonsil region by palpation. Endoscopic nasopharynx, tongue base, hypopharynx and laryngeal examination did not show pathological findings. Neck ultrasonography revealed no pathology. With these findings in order to support the diagnosis of possible Eagle syndrome, neck tomography and 3D reconstruction were requested. There was significant prolongation in both styloid processes (right 83 mm, left 80 mm) and extending to the hyoid bone (Figure 1, 2).

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Figure 1: Lateral view of Eagle syndrome in 3D computerized tomography
Figure 2: Anterior view of Eagle syndrome in 3D computerized tomography

The operation was recommended the patient through the oral route, if necessary, also external approach from the neck. However, when the patient did not accept the operation, analgesic and anti-inflammatory treatment was given and it was suggested to avoid neck trauma.

Discussion

Eagle syndrome is defined as pain in the face, throat and neck because of the elongated styloid process. Swallowing difficulty, tinnitus and earache are also seen less frequently. Detected symptoms and findings are related to the anatomical relationship between the styloid process and surrounding tissues [5]. We have information about pathogenesis of the Eagle Syndrome that does not go beyond theories. Congenital ossification at the upper part of the stylohyoid ligament and/or lower junction is the suggested mechanism in pathogenesis [6]. In the emergence of pain; fracture in the stylohyoid ligament with a sudden movement, pressure of the elongated styloid process (ESP) on glossopharyngeal nerve, lower branch of the trigeminal nerve and chorda tympani, degeneration and inflammatory changes of the stylohyoid ligament junction, deterioration of circulation by compression of carotid artery with elongated styloid process are thought to be responsible. Syncope attacks or stroke due to carotid artery compression have also been reported [7].

Corell et al. [8] showed that the ESP frequency was determined as 18.2% and 93% of them are bilateral. Symptoms may not be seen despite the presence of ESP radiologically in some patients. Despite the presence of bilateral ESP in computerized tomography, the symptoms were only present on the right side in our case.

In differential diagnosis; cranial nerve neuralgia (glossopharyngeal, trigeminal, etc.), temporomandibular joint diseases, cervical myofascial pain syndrome, chronic tonsillopharyngitis, molar teeth or dental prosthesis problems, pharynx and tongue base tumors should be kept in mind. ESP can be overlooked in patients with these complaints [9].

Surgical excision is the only treatment modality for the relief of symptoms associated with ESP. Eagle described the method of tonsillostylolectomy through the mouth. Stylolectomy can also be performed with the incision of the neck from the mastoid to the hyoid level. The morbidity is higher and the cosmetic results are worse than the intraoral approach. Though ESP is excised in sufficient length, surgical failure is still possible. In 20% of patients, complaints have not been fully resolved and symptoms have been reported to recur [10].

Symptomatic anti-inflammatory drugs can also be used in patients who do not accept surgery as in our case.

Conclusion

Neck, throat, ear, tooth, temporomandibular joint pain; difficulty in swallowing, and feelings of a foreign body in the throat are problems that a physician frequently confronts in daily practice. Although there are other reasons, ESP can be a cause of these complaints. For this reason, palpation of the tonsil region and 3D reconstructed neck tomography should be used in patients with this type of complaints. As in our case, it should be noted that although ESP is usually bilateral, the complaints may be unilateral and very rarely too long to joint with hyoid bone.

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