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Eagle Syndrome: A rare Case Report

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Introduction

An abnormally long styloid process stylohyoid chain ossification producing cluster of symptoms give rise to Eagles Syndrome (E.S) stylohyoid syndrome. It was Eagle in 1937 that first defined stylalgia as an autonomous entity related to abnormal length of styloid process or mineralization of the stylohyoid ligament complex. The stylohyoid complex is made of styloid process, stylohyoid ligament and the small cornus of the hyoid bone. All these Struthers are derivate from Reicherts cartilage of the second branchial arch. The normal length of styloid process varies from 0.8 to 2.5 cm [3]. 4% of the population are believed to have elongated styloid process while only a small percentage (between 4-10.3%) of these patients are symptomatic.

Eagle primarily described two syndromes[1]

1. Classic styloid syndrome: it frequently follows tonsillectomy and is characterized by pharyngodynia localised in the tonsillar fossa and sometimes accompanied by dysphasia, odynophagia,hypersalivation foreign body sensation, more rarely by temporary voice changes;
2. The stylo-carotid syndrome: it is not correlated with tonsillectomy. In this condition, stylohyoid apparatus compresses the internal or the external carotid arteries and especially their perivascular sympathetic fibres, resulting in a persistent pain irradiating in the carotid territory.

Case report

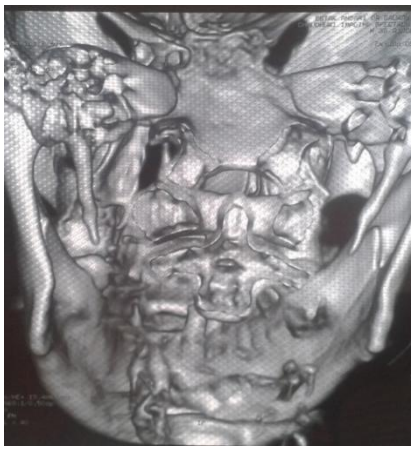
A 40 year old patient came to my clinic with complain of pain during deglutition and burning sensation around the third molar region on left side for the last 6 months. Had a H/O assault 2weeks before the initiation of the present complain when someone tried to strangulate him. He also consulted an E.N.T. surgeon who advised an endoscopy of Larynx and upper GI tract. It was found to be normal.

On examination it was found that the left side upper third molar was bucco version. The mucosa appeared to be normal at the left Retromolar trigon (rmt) region. There was a white patch present on the tongue. On palpation there was tenderness at the left rmt region. No lymphadenitis present. The lesion on the tongue was scrapable.

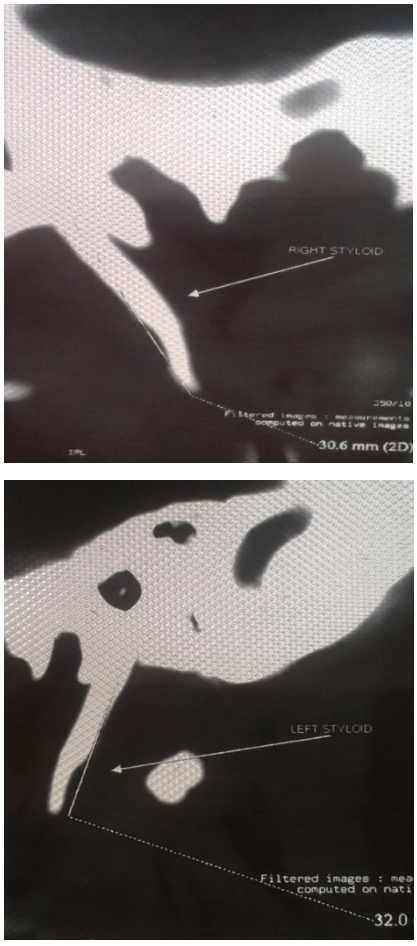
Taking into consideration the third molar to be the culprit was sacrificed. A regular course of antibiotics and analgesics were prescribed. Flucanazole 150 mg O.D was prescribed on every alternate day for oral candidiasis.

Patient returned after 10 day with burning sensation greatly reduced but difficulty during deglutition persisted. White Patch completely disappeared. C.T of face and neck was done with special emphasis on the styloid process. C.T neck was normal. C.T of face showed elongation of styloid process (RT 30mm, Lt 32mm). The treatment opted was steroid injection at retromolartrigon region twice weekly for 6 weeks Tab Pregabaline 75mg O.D for 2 weeks which was discontinued due to giddiness.

There was marked improvement in the patient's symptom but didn't disappeared completely.



3 D reconstruction CT image of both styloid process



Measurement of length of left and right styloid process

Discussion

Eagle syndrome is rare entity which is not commanly suspected in clinical practice.

According to Hoffmann etal elongated styloid process more than30mm is in conflict with adjacent anatomical structure may lead to Eagle Syndrome or styloid- carotid artery syndrome[4]. Eagle reported over 200 cases and explain that the normal styloid process is approximately 2.5-3.0 cm in length. He observed that slight medial daviation of the styloid process, could result in severe symtoms of atypical facial pain[2].

This can also present with abnormal clicking sound and can be confused with internal derangement of temporomandibular joint[6]. There may be involvement of 9,10 and 12 cranial nerve leading to vocal cord paralysis palatal paresis and daviation of tongue [8,9].One can palpate styloid process only when it is longer than 7.5 cm[7].

The styloid process is located between the external carotid artery and internal carotid artery. This may lead to injury of internal carotid artery during surgical intervention. Surgery should be opted in styloid carotid artery syndrome. The earliest reported intervention involved manual transoral fracture, but the effect of this procedure or symtoms proved to be unpredictable[5].

Conclusion

Conservative treatment cannot completely replace surgical treatment. However,a satisfactory tretment effect was acived in this case using only conservative treatment. Therefore, rather than uniformly performing surgical treatment in patient diagnosed with Eagle's syndrome, it may help to attempt conservative treatment first and then consider surgery as required according to process.

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