

Eagle's Syndrome - A Rare Entity But Not So Uncommon. Alleviating Pain & Sypmtomatology

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Abstract:

Aims and objective: Elongated styloid process is a diagnosis that should be considered in the evaluation of recurrent neck, throat or facial pain and dysphagia with or without radiation of pain to the ipsilateral ear. Here we study the occurrence of stylalgia in patients presenting with pain in the head and neck region and conservative management options.

Materials and Methods: Our study consisted of 50 patients presenting with symptoms of throat pain on swallowing, foreign body sensation in the throat, and ear pain. Diagnosis was made by symptoms and clinical examination which was further confirmed by x-ray OPG view for styloid process.

Results: Out of 30 patients, 18 patients became symptom-free while 7 patients experienced relief of symptoms. There was no worsening of symptoms in any of the patients.

Conclusion: The incidence of Stylalgia is higher in a female population. High suspicion, thorough clinical and radiological examination will reveal correct diagnosis. Results from the present study indicate that conservative management should be initially considered for Stylalgia rather than uniformly performing surgery.

I. Introduction

Eagle's syndrome commonly called as "Stylalgia" is a rare condition which commonly remains undiagnosed. Styloid process is a pointed piece of bone that extends down from the human skull, just below the ear. An elongated styloid process is an uncommon cause of pharyngeal and neck discomfort known as eagle syndrome¹. Eagle's syndrome presents with a dull nagging pain arising near the tonsillar fossa and radiating to ear and it increases with swallowing. Prompt attention, good history taking with careful clinical examination is required to make clinical diagnosis. Other names of Eagle's syndrome are Stylalgia, elongated styloid process, long styloid process syndrome, stylohyoid disorder, neuralgia of styloid process, cervicopharyngeal pain syndrome.

Normal length of styloid process differs in each individual but is generally less than 20 mm. It is considered elongated if it is 30 mm or longer. Abnormal elongation of styloid process occurs in approximately 4% of population, amongst these only 4 % complain of symptoms². It is frequently found in females between 30-50 years. Eagle³ coined the term "Styalgia" to describe the pain associated with this abnormality in 1937. He divided the syndrome into two forms: Classic type and Carotid artery type⁴. The classic type is due to compression of neural elements, glossopharyngeal nerve, lower branch of trigeminal nerve and chorda tympani by the elongated styloid process. This type includes symptoms such as foreign body sensation, pain referred to ear and dysphagia. Carotid artery type of Eagle's syndrome presents with other symptoms such as migraine and neurological symptoms caused by irritation of the sympathetic nerve plexus. If the internal carotid artery is compressed, then ipsilateral headache can occur. If the external carotid artery is compressed, then there can be pain in the temporal and maxillary branch areas⁵. Differential diagnosis of Eagle's syndrome should include trigeminal neuralgia, migraine, temporomandibular joint disorders, temporal rachitis, unerupted or impacted molar teeth and faulty dental prostheses.

II. Materials And Methods

This prospective study included 30 patients who presented to the otolaryngology outpatient department with complaints of throat pain, globus, neck pain, facial pain, odynophagia, throat pain associated with earache, and neuralgic pain. Patients' detailed history was taken and Head and neck examinations were carried out. Symptoms were analyzed and patients with complaints such as throat pain, odynophagia, pain radiating to neck, pain radiating to ear, globus, pain on neck movements and neuralgic pain along the glossopharyngeal nerve were included in our study. Patients' examination included intra oral palpation of the styloid process and to observe aggravation of symptoms on palpation. Radiological examinations were conducted to confirm elongation of styloid process. Orthopantomogram (OPG VIEW) shows the entire length of the process distinctly

and its deviation can also be made out clearly. Patients were administered tablet carbamazepine 200 mg once daily for 4 to 8 weeks. If there was relief, it was continued for further 2 weeks and if there was no relief of symptoms then dose was increased up to 200mg BD.

III. Result

Among 30 cases, male were 6 and 24 were female. Majority of patient were in age group 30- 45. Although 60% (18 out of 30) of patients had bilateral enlargement of styloid process, the patients had symptoms on one side only. Out of 30 patients, 27 patients presented with dull nagging pain in throat or tonsillar fossa, 19 patients complained of pain on swallowing, 2 patients had pain on movement of neck, 2 patients presented with pain over the jaw, 1 with globus sensation, and 1 with neck pain. All the patients experienced aggravation of symptoms on palpation of the styloid process. The average length of the styloid process ranged from 3.8 cm to 6.6 cm. 18 patients became symptom free after 3 weeks of medical treatment. In 12 patients, dose was increased up to 200mg BD. Out of these 12 patients, 7 patients had considerable improvement in their symptomatology while 5 patients had no improvement. There was no worsening of symptoms in any patient.

IV. Discussion

Symptoms of stylalgia mimic that of pharyngitis and a wrong diagnosis will lead to unnecessary delay in appropriate treatment. The diagnosis of stylalgia should be considered in the differentials of throat pain. A suspicion towards the entity and a clinical examination to rule out this condition will help in clinching the diagnosis. Styloid process of temporal bone is a slender projection attached to base of skull. The styloid-hyoid apparatus extends from the tip of the styloid process, the stylohyoid ligament passes downwards and forwards to the lesser cornu of the hyoid bone. All these structures are derived from Reichert's cartilage which arises from second branchial arch^{6,7}. The symptomatology is characterized by the foreign body sensation in the pharynx, causing difficult and painful swallowing and earache.

The cause of elongation of the styloid process has not been fully elucidated. Several theories⁸ have been proposed. 1) Congenital elongation of the process due to persistence of a cartilaginous anlage in the stylohyale. 2) Calcification of the styloid ligament giving the appearance of an elongated styloid process. 3) Growth of osseous tissue at the insertion of the stylohyoid ligament. In a study done by Albinas Gerickas⁹, many components of treatment were tried in eagles syndrome such as glucocorticoid injection close to the styloid process followed by treatment with anti epileptic, antihistaminics and tranquilizers. This study said that patients had temporary relief in their symptomatology. However, surgery is the definitive treatment in such cases. Our study also proves that conservative management with carbamazepine helps in alleviating the pain and symptomatology in these patients. However our study has limitations of small sample size and we couldn't study the relapse rate as patients were lost in long term follow-up.

V. Conclusion

Eagles syndrome largely remains under diagnosed though the incidence is 4 to 7 %. In patients with long standing throat pain the diagnosis of stylalgia should be considered. Diagnosis of Eagle syndrome should be made by proper history and clinical examination by intra-oral palpation of styloid process. As there is a lack of literature regarding the conservative management of Stylalgia, in the present study short term medications and the results show that the attempts were successful in imparting relief from symptoms. Hence, it may be concluded that conservative management of Stylalgia rather than uniformly performing surgery should be an alternative for initial therapy. However, further studies involving larger samples and long term follow-up would further substantiate the usefulness of conservative treatment rather than surgery.

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