

Self Inflicted Styloid Process Fracture Cures Styalgia - A Case Report

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ABSTRACT: The treatment of styalgia varies from region to region. The patients are treated medically initially and if not relieved styloidectomy is advised. Styloid process fracture has also given favourable results in many patients. The authors report a 45 year old man who accidentally fractured his own styloid process and got relieved of styalgia. In this case report authors discuss clinical presentation, differential diagnosis of styalgia and various lines of management for styalgia.

Key Words: Styloid process, Styalgia, Styloidectomy.

INTRODUCTION: The styloid process is a cylindrical, long cartilaginous bone located on the posterior lower surface of the petrosal bone. Direction of this process is downwards to the front and slightly to the inside. The normal styloid process length is between 20-30 mm. It develops from the second brachial arch¹. Patients can be categorized into two groups: Patients who have classical symptoms of a foreign body sensation in the throat with a palpable mass in the tonsillar region and those with pain in the neck following the carotid artery distribution (carotid artery distribution)². The elongated styloid process can be palpated orally by inserting a finger orally along the occlusal line in posterior tonsillar fossa³. If Palpation of the styloid process produces pain which is either referred to ear, head or face it is very likely that styloid process is elongated⁴. Initially clinician should try to decrease any muscle spasm and scar tissue around the styloid process. Some clinicians have also tried fracturing of styloid process with mixed results. Steroid injections have also been injected into affected tissues with varying results^{5,6}. If not relieved, traditional method of surgical excision of styloid process is followed. Eagle in 1949 described a syndrome as Eagle's syndrome characterised by elongated styloid process or ossified stylohyoid ligament⁷. Here we report a case of a patient who accidentally fractured his styloid process which cured his styalgia.

CASE REPORT: A 45-year-old man farmer by occupation came with the following sequence of events. Around four to five years back patient started having pain in the throat. It was more during swallowing food and predominantly on the left side. With time his symptoms they started to aggravate and he also started to experience pain radiating to ear and sometimes to ipsilateral face and rarely to clavicle. He presented to us with the above mentioned symptoms. Intraoral palpation revealed bilateral enlargement of styloid process. Thinking in terms of styalgia carbamazepine was started with a dosage of 200mg twice a day. Patient was advised to come after 10 days for follow up. He did not turn up but after around three months. As his symptoms were not relieved, he went to a quack,

who rubbed salt like powder (Locally called as manjun) in the region of palatine tonsils. As the patient describes, it gave him a moment of relief. Patient started rubbing the powder by himself in the tonsillar region for relief. Once while applying the powder he vigorously rubbed and pressed and felt like something snap. He felt severe excruciating pain, which subsided with pain killers in a week. In two weeks time he realised that he has no further pain and its radiation to ear and other regions has also stopped. He presented to us to know whether he has caused himself an unknown trauma. Intraoral palpation still revealed bilateral enlargement of styloid process. X-ray of skull, Townes view was done. In addition to bilateral enlargement of styloid process it also showed a healed fracture of styloid process left side.

DISCUSSION: Normally styloid process is not palpable on bimanual palpation of tonsillar fossa. If palpable it confirms the diagnosis. X-ray of skull Townes view can also be done to confirm the diagnosis. An ossified stylohyoid ligament or an elongated styloid process may not be symptomatic in every patient. Symptoms may vary from foreign body sensation, throat pain, dysphagia, headache, ipsilateral



Figure 1: Circle showing healed fracture of left styloid process.

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otalgia and sometimes facial and carotid pain^{8,9,10}. In medical literature there are not many cases of fractures of ossified ligaments reported. Either these fractures are spontaneous or traumatic^{10,11}. Elongated styloid process can be caused by congenital elongation of styloid process due to persistence of cartilaginous analog of styloid and can also be due to calcification of stylohyoid ligament by unknown mechanism and growth of osseous tissue at the insertion of stylohyoid ligament. Glossopharyngeal nerve, vagus and 3rd branch of trigeminal nerve and chorda tympani can be stimulated by styloid process and induce pain. There are various claims that infraction of styloid process can lead to granular tissue formation thus releasing pressure to nearby structures. For symptomatic cases therapy may vary from medical to surgical line of management, depending upon the intensity of pain and dysphagia. Medical line includes anti inflammatory and corticosteroid drugs. Surgery is planned in patients who do not respond to medical line of management. Elongated styloid process can be excised, but some authors do not agree for excision of styloid process^{5,6}. Excision of styloid process can be done by Transoral approach or external approach. Nowadays styloid process is also resected endoscopically through transoral route¹². The advantage of following external approach is proper exposure of styloid process and other vital structures¹³. In spite of medical research going all over the world and new drugs and treatment modalities coming every other day, few diseases still are not satisfactorily treated, Neuralgia being one of them. Our patient was not relieved with the treatment we had advised him to follow. Under the influence of a quack, patient started rubbing salt-like powder in his tonsillar region which on one day led to fracture of styloid process. Patient is now relieved of the pain. These sequences of events highlights on Three major issues. Firstly, to confirm the diagnosis of styloid process enlargement clinically by proper history and examination which should be further consolidated by X-ray Townes view. Secondly, the unsatisfactory treatment of styalgia and associated neuralgias due to the lack of a set of guidelines for the treatment of the same. Treatment ranges from medicines to styloidectomy to fracture of styloid process, and last but not the least the invasion of health industry in

India by unqualified and underqualified practitioners. Our patient is relieved of symptoms and he is full of praise for the quack, but we as a medical fraternity should recognize this as a failure on our part. CONCLUSION: Styloid process enlargement is not uncommon. History should be taken thoroughly and in detail and physical examination of head and neck are mandatory. Traditionally, surgical excision of styloid process is the treatment of choice. But there have been cases all over the world in which the patient feel totally relieved of the neuralgic symptoms by infraction of styloid process after tonsillectomy. A patient infraction of a styloid process accidentally and getting relieved of styalgia is a rare and probably the first case in the world.

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