

Elongated Styloid Process: A Rare Presentation As A Tonsillar Mass

R Sachidananda, Chokkalingam, Siddique, McRae

Citation

R Sachidananda, Chokkalingam, Siddique, McRae. *Elongated Styloid Process: A Rare Presentation As A Tonsillar Mass*. The Internet Journal of Otorhinolaryngology. 2005 Volume 5 Number 2.

Abstract

Elongated styloid process causing Eagle's Syndrome is a rare clinical entity. The diagnosis is often difficult because of its vague symptomatology. Palpation of tonsillar fossa with radiological demonstration of the elongated styloid process confirms the diagnosis. We report a rare case of elongated styloid process presenting as tonsillar mass

INTRODUCTION

Elongated styloid process is a rare clinical condition, which often presents with vague cervicofacial pain, foreign body sensation in the throat, dysphagia, facial pain and referred otalgia. The patient presents to the dentist or otolaryngologist with these symptoms. Diagnosis is usually done by palpating the tonsillar fossa for an unusually elongated styloid process. The diagnosis is confirmed by soft tissue lateral radiograph of neck, orthopantomogram or a computed tomography scan (CT scan.) This paper reports an unusual presentation of an elongated styloid process presenting as a mass in the tonsillar fossa.

CASE REPORT

A forty one year old man presented to the ENT clinic with history of foreign body sensation in the throat and vague pain in the right tonsillar fossa for more than six months duration. He was a chronic smoker. Examination of oropharynx revealed a smooth mass arising in the right tonsillar fossa measuring about 4 x 4 centimetres. On palpation the mass was firm in consistency with lobulations. The opposite tonsil was normal in size and appearance. Fiberoptic flexible endoscopic examination of the postnasal space and rest of pharyngo-larynx was normal. There was no lymph gland enlargement in the neck or else where in the body. There was no hepato-splenomegaly. Tonsillectomy was considered to diagnose lymphoma or malignancy.

The patient underwent right tonsillectomy under general anaesthesia. After removal of the tonsil, a sharp elongated styloid process measuring about two cm in length was pointing into the tonsillar fossa. The pericapsular tissue

showed exuberant red granulation tissue. The elongated styloid process was amputated and smoothed. The tonsil was sent for histopathology, which revealed non-specific granulation tissue. On six months follow up patient was symptom free.

Figure 1

Figure 1: Elongated styloid process during surgery



DISCUSSION

Eagle's Syndrome or Stylalgia caused by elongated styloid process is an uncommon and under diagnosed clinical entity. Often it presents with vague pain in the throat, facial pain, referred otalgia and difficulty in swallowing. The first mention of elongated styloid process as a clinical entity in literature was by Lucke (1870) and Weinlecher (1872) , It was Eagle^{2,3} who described this as a syndrome complex mainly in two varieties. The classical variety presents as pain

in throat, referred otalgia & foreign body sensation in the throat. A second variety was styloid process compressing the carotid artery presenting as carotodynia, headache and dizziness. He found that these patients were relieved of symptoms by shortening the styloid process.

Styloid process is a part of the temporal bone lying anteromedial to the mastoid process, measuring about 2 to 3 centimetres. Embryologically it is a derivative of second branchial arch along with styloid ligament & lesser cornu of hyoid bone. The cause of elongated styloid process is not very well understood but several theories have been put forward. The most popular one is growth of osseous tissue along stylohyoid ligament.⁴

The clinical symptoms with which the patient presents is due to compression on the adjacent nerves mainly the glossopharyngeal, lower branch of trigeminal & the chordatympani. The other possible causes of pain may be due to proliferation of granulation tissue after a traumatic fracture of styloid process,⁵ insertinotendinosis or impingement on the carotid vessels.¹

Diagnosis can be made by plain radiography, orthopantomogram and CT scan. Injection of local anaesthetic, into tonsillar fossa relives pain and can be used as a diagnostic tool.

Treatment is mainly surgical where the elongated styloid process is shortened by trans-tonsillar or by external approach. Injection of steroid in the lower tonsillar fossa has been described for patients unfit for surgery.⁶

Our patient had a unique presentation of a unilateral tonsillar fossa mass that gave us the impression of tonsillar malignancy. The apparent tonsillar swelling was caused by non specific exuberant granulation tissue in the pericapsular space due to the sharp elongated styloid process impinging on the tonsillar fossa. The final histopathology confirmed the tonsil was normal and the associated granulation tissue was

non-specific. Symptomatic elongated styloid process usually presents as a non-specific pain in the throat, but extremely rarely as a mass in the oral cavity. Literature search shows that it has been reported only once wherein a elongated styloid produced a mass in the oral cavity.⁸

SUMMARY

Eagle's syndrome associated with elongated styloid process is well known clinical entity. Tonsillar mass caused by elongated styloid process is uncommon and to our knowledge this is the second reported case. ENT surgeons should be aware of this entity when a patient presents with vague throat pain and tonsillar mass. Clinical palpation of tonsillar fossa should be complemented with a plain radiography or a CT Scan to make a diagnosis and exclude this rare possibility.

CORRESPONDENCE TO

Mr Ravi Sachidananda
1, Cedar Court
North Tyneside General Hospital
Rake Lane
North Shields
NE29 8NH

References

1. Moffat DA, Ramsden RT, and Shaw HT. The styloid process syndrome. *Journal of Laryngology & Otology* 1977; 91: 279-294
2. Eagle WW. Elongated Styloid process. *Arch Otolaryngol* 1937; 25: 584-587
3. Eagle WW. Elongated styloid process: symptoms and treatment. *Arch Otolaryngol* 1958; 64: 172-176
4. Steinmann EP. A new light on the pathogenesis of styloid syndrome. *Arch Otolaryngol* 1970; 91: 171-174
5. Balasubramanian S. The ossification of styloid ligament and its relation to facial pain. *Br Dent J* 1964; 116: 108-111
6. Steinmann EP. Styloid syndrome in absence of elongated process. *Acta Otolaryngology (Stockh)* 1968; 66: 347-356
7. Prasad KC. Elongated styloid process (Eagle's syndrome) A clinical study *J Oral Maxillofacial Surgery* 2002; 60 (2): 171-175
8. Modrzynski M: The case of throat tumour caused by elongated styloid process. *Pol Merk Lek* 2000; 8 (49): 483-485

Author Information

Ravi Sachidananda, MS, DNB, MRCS ,DOHNS
SHO ENT, Colchester General Hospital

Chokkalingam, BSc, FRCS
Associate Specialist, Colchester General Hospital

Siddique, FRCS
Associate Specialist, Colchester General Hospital

McRae, FRCS, FRCS (ORL)
Consultant ENT Surgeon, Colchester General Hospital