

Elongated styloid process or Eagle's syndrome



Figure 1. Orthopantomogram showing elongation of the styloid process (white arrows) bilaterally.

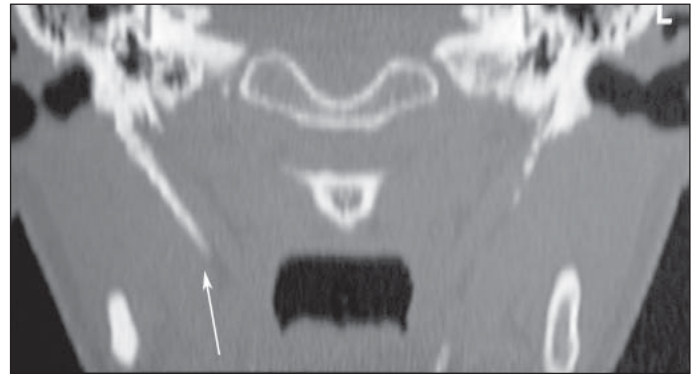


Figure 2. Coronal computed tomography shows elongation of the styloid process on the right side (white arrow).

Introduction

Eagle's syndrome is a rare entity caused by an elongated and ossified styloid process. This results in an aggregate of symptoms including persistent throat pain, foreign body sensation and dysphagia.

This article presents a case of Eagle's syndrome in a 39-year-old patient which was confirmed on imaging.

Discussion

The stylohyoid apparatus is derived from the Reichert's cartilage of the second branchial arch. The styloid process normally measures up to 2.5 cm in length. Processes longer than 3 cm are seen in 4–7% of the population (Murtagh et al, 2001). Only a small percentage of patients with elongated styloid process are thought to be symptomatic (Rechtweg and Wax, 1998; Murtagh et al, 2001).

Eagle first described the syndrome and defined stylalgia as an autonomous entity

related to an elongated styloid process or calcification of the stylohyoid ligament. There are two possible clinical expressions of this syndrome:

1. Classical styloid syndrome almost always occurs following tonsillectomy. It is characterized by dull throat pain with radiation to the ipsilateral face and ear
2. Stylo-carotid syndrome is not related to tonsillectomy. This occurs when the stylohyoid apparatus compresses the internal and/or external carotid artery. This presents as cervical pain provoked by rotation of the neck and radiation of pain to the infraorbital region.

The pathogenesis of the syndrome is poorly understood. Several mechanisms have been proposed: persistence of mesenchymal elements capable of producing osseous tissue, ossification of stylohyoid ligament, or osseous metaplasia as a consequence of trauma or mechanical stress in the vicinity

of the stylohyoid ligament insertion (Balsubramanian, 1964; Fini et al, 2000).

Diagnosis is initially made on clinical examination. Palpation of the elongated styloid process in the tonsillar fossa and exacerbation of symptoms are highly suspicious of this syndrome (Keur et al, 1986). Imaging confirms the clinical findings.

Treatment is usually surgical (Fini et al, 2000). Styloidectomy can be performed either by the transoral or extraoral approach. Non-surgical treatment includes local injection of steroids and local anaesthetics.

Conclusions

Eagle's syndrome should be considered in the evaluation of patients with recurrent throat and neck pain. **BJHM**

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Fini G, Gasparini G, Filippini F, Becelli R, Marcotullio D (2000) The long styloid process syndrome or Eagle's syndrome. *J Craniomaxillofac Surg* **28**: 123–7

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Murtagh RD, Caracciolo JT, Fernandez G (2001) CT findings associated with Eagle Syndrome. *AJNR Am J Neuroradiol* **22**: 1401–2

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Case Report

A 39-year-old woman presented to the maxillofacial clinic of the authors' institution with a 2-year history of pain in the right side of the throat radiating to the right face and ear.

On clinical examination, there was scarring in the anterior pillar of the fauces, more prominent on the right side. There was no ulceration or palpable neck mass. The temporomandibular joints were normal. The patient gave a history of tonsillectomy 19 years ago.

An orthopantomogram (Figure 1) demonstrated elongated styloid processes bilaterally, measuring 4.4 cm on the right and 4 cm on the left. Palpation of the styloid process following review of the orthopantomogram resulted in exacerbation of the patient's symptoms on the right side. Unenhanced computed tomography (Figure 2) of the neck confirming the clinical diagnosis of elongated styloid process or Eagle's syndrome.

The patient underwent right-sided styloidectomy through an intra-oral approach. She was symptom free at 1 year follow-up.

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