Bilateral Elongated Styloid Processes in Tonsillar Bed Present With Quinsy

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Abstract

Case presentation: A 54 years old female presented with recurrent attacks of acute follicular tonsillitis [AFT] with right sided otalgia and odynophagia with history of twice right preitonsillar abscess drainage. After preitonsillar abscess drainage and proper medical treatment, the patient was advised for tonsillectomy. Following routine preoperative preparation and laboratory, patients was admitted for tonsillectomy under general anesthesia. Intra-operatively, after tonsillectomy, vertical elongated hard structure was seen and felt in both tonsillar beds. Postoperatively, there was no bleeding, infection but otalgia persists. Computed tomography showed elongated medially directed both styloid processes that were seen to reach tonsillar beds. Patient refused further intervention for them. Keywords: Styloid process; Tonsil; Preitonsillar abscess; Tonsillectomy

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Introduction

Patients complained of recurrent dysphagia, sore throat or facial pain might have Eagle’s syndrome caused by abnormally elongated styloid process [SP] or calcified stylohyoid ligament. The average adult length of styloid process is about 2.5cm. Eagle’s syndrome is usually asymptomatic and can be diagnosed by palpation of SP in the tonsillar fossa or by radiography [1]. In this study, we present a case had bilaterally elongated and medially directed SPs presenting by recurrent acute folloicular tonsillitis [AFT] and preitonsillar abscess.

Case Report

A 54 years old female presented with recurrent AFT with right otalgia and odynophagia with history of twice right preitonsillar abscess drainage without history of localized facial or neck pain, or foreign body sensation. After preitonsillar abscess drainage and proper medical treatment, patients was admitted for tonsillectomy under general anesthesia. Intra-operatively, after tonsillectomy by total bed dissection [TBD], vertically elongated hard structure was seen and felt in both tonsillar beds elevating them and projected medially as bulge lateral to superior constrictor muscle [Figure 1]. Hemostasis was insured and recovery was eventless. Postoperatively, no bleeding, infection, or granulation was detected but otalgia persists. Computed tomography [CT] was ordered that showed elongated antero-medially directed both SPs that were seen to reach the tonsillar beds [Figure 1] but patient refused any further intervention. Zagazig University IRB approved the study.

Discussion

Styloid process originates just anteromedial to stylomastoid foramen from the temporal bone. The stylohyoid complex consists of styloid process, stylohyoid ligament and lesser horn of hyoid bone. styloid process gives attachments to 3 muscles [stylohyoideus, styloglossus, stylohyoid,] and 2 ligaments [stylomandibular and stylohyoid]. The process has close relations to important neck neurovascular structures such as internal jugular vein and trigeminal, facial and last four cranial nerves [1]. Styloid process passes downwards, anteriorly and slightly medially [1,2] and its tip usually lies between external and internal carotid arteries [1].

When the length of the styloid process exceeds 3 cm, it is considered elongated styloid process [2] that was firstly described in 1937 by Eagle who defined “stylalgia” as pain associated such abnormal styloid process elongation [3] and later referred to as Eagle’s syndrome [2]. The wide symptoms variety of Eagle
syndrome’s patients could be attributed to different directions of the elongated styloid process [1,5] that can be either medial or lateral angulation or anterior or posterior angulation of styloid process diversion. Haluk et al concluded that the length and anterior angulation of the SP are responsible for the symptoms [5]. The most common presenting symptoms are persistent throat pain, foreign body sensation, dysphagia, odynophagia, chronic neck pain, headache and referred otalgia [2,6]. Clinically, hardness can occasionally be felt in the tonsillar fossa which is painful on palpation [2]. If the styloid process exerts pressure on the carotid arteries area, symptoms becomes more complex ear buzzing, headache, or pain during head movement. Elongated styloid process has an incidence of 4% to 7% [6], with female dominance but only up to 10% are symptomatic. The mean styloid process length in Eagle’s syndrome is about 40 mm. Abnormal anterior angulation could be responsible for the symptoms rather than elongation. To the best of our knowledge, we reported the first case of bilaterally elongated and medially directed styloid process presenting with preitonsilar abscess and diagnosed during tonsillectomy.

On literature review, we found similar report of an incidental finding of elongated styloid process while performing tonsillectomy by Al-Ekri and Alsaei [2] but unlike our case it was unilateral on right side and the patient did not have peritonsilar abscess [table 1]. We agreed with Al-Ekri and Alsaei that such findings raise up a scientific debate, should the elongated SP be excised at the same time, to minimize the risk of eagle syndrome? Or should surgeons leave it and follow the patient styalgia development?

Diagnosis of elongated styloid process is often difficult and late because it is often asymptomatic or cause vague symptom. Additionally, in current case, recurrent AFT and occurrence of preitonsilar abscess increase difficulty to suspect it. However, post-tonsillectomy palpation with radiological demonstration confirms the diagnosis. Elongated medially directed styloid process should be added to the causes of preitonsilar abscesses. So we recommend to palpate tonsilar area after cure of peritonsilar abscess and if suspected, surgeon should ask for radiology to take consent for SP excision during tonsillectomy.

In conclusion: A case of bilaterally elongated SP with antero-medial angulation presenting with recurrent AFT and peritonsilar abscesses was reported.

Conclusion
A case of bilaterally elongated SP with antero-medial angulation presenting with recurrent AFT and peritonsilar abscesses was reported.

References