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The Eagle Has Landed

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Abstract Eagle syndrome is a rare medical condition characterized by symptoms related to an elongated styloid process. CT scan of the neck and direct laryngoscopy was obtained and confirmed the diagnosis. Here we report a patient who presented with dysphagia and odynophagia and was found to have an elongated styloid process.

Keywords*: eagle syndrome, elongated styloid process*

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1. Introduction

Eagle syndrome is a rare medical condition characterized by symptoms related to an elongated styloid process. The incidence of Eagle's syndrome is approximately 0.16% in the general population with a female to male ratio of 3:1 [1]. This case describes a patient who presented with dysphagia and odynophagia who was found to have an elongated styloid process.

2. Case Presentation

A 40-year-old man presented to the emergency department with worsening dysphagia and new onset odynophagia. He reported mild intermittent dysphagia for 4 years. However, over the past 24 hours his symptoms became persistent and was associated with neck pain and odynophagia. His neck pain was severe and improved with hyperextension of his neck. Dysphagia was present to liquids and solid foods which resulted in decreased oral intake. He denied otalgia, otorrhea, dyspnea, headaches, tinnitus, foreign body sensation in the throat, dysphonia, fever or chills. His medical history was significant for seizure disorder, tophaceous gout, hypertension, chronic kidney disease stage 3 and obstructive sleep apnea. Medications included allopurinol and nebivolol.

In the emergency department, blood pressure was 155/85 mmHg, heart rate 95. He was breathing at 25 breaths per minute and saturating at 96% on room air. Physical examination was remarkable for tenderness to palpation along the left side of the neck with minimal edema, multiple regions of gouty tophi on the digits, elbows and knees, with normal appearing oropharynx, moist mucous membranes without hyperemia or exudates, absence of dental caries or palpable lymphadenopathy. Differential diagnosis included cervical mass, malignancy, trigeminal neuralgia and temporal arteritis.

Laboratory results revealed WBC 10.60, hemoglobin 12.6, creatinine 1.46 and GFR 53. CT scan of the neck with IV contrast demonstrated moderate to marked enlargement of the left stylohyoid complex measuring 43.21 mm which was completely calcified and resulted in mass effect on the adjacent soft tissue. There was also mild rotation of the epiglottis with non-aerated left piriform sinus. CT scan imaging is shown below.

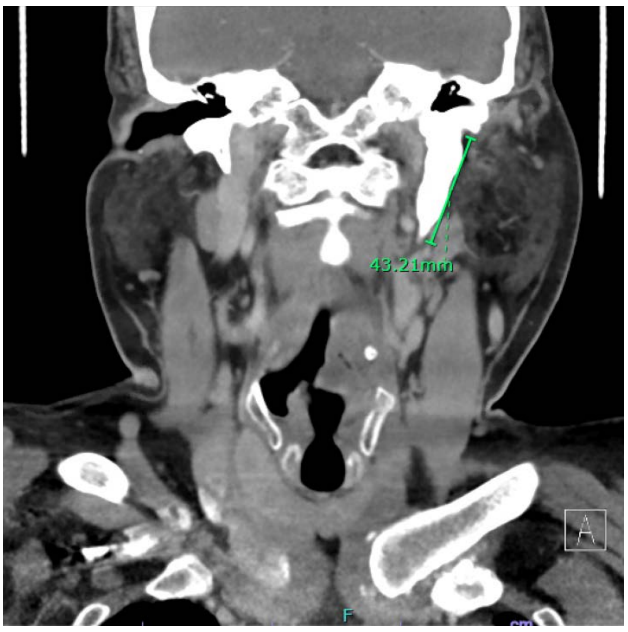

Figure 1. Shows an elongated left styloid process of 43.21mm

Subsequently, a direct laryngoscopy was performed by an otolaryngologist which confirmed the CT scan findings. Given the patient's clinical findings a diagnosis of Eagle syndrome was made. The patient was treated with dexamethasone 8 mg IV thrice daily with improvement within 24 hours.

3. Discussion

Eagle syndrome was first described by Dr. Watt Eagle in 1937 [1]. Eagle syndrome is a condition caused by an elongated styloid process that can compress neighboring structures [1]. The etiology is currently unclear [1]. The average length of the styloid process is 20-30 mm in the adult Caucasians [2]. The styloid process in our patient was elongated measuring 43.21 mm.

Clinical presentation includes cranio-facial pain, dysphagia, odynophagia, tinnitus, otalgia, headache and a sensation of a foreign body in the pharynx [2]. Two types of Eagle syndrome have been described in the literature [4]. The first type is characterized by cervicofacial pain aggravated by swallowing and neck movement [4]. The second type is vascular Eagle syndrome or stylo-carotid artery syndrome, which is as a result of compression of the internal and external carotid arteries [1]. This can subsequently cause TIAs, vertigo and syncope [1]. Our patient presented with throat pain, dysphagia, odynophagia, neck tenderness along the stylohyoid and an elongated styloid process which confirmed the diagnosis of Eagle syndrome.

Eagle syndrome can either be managed conservatively or surgically [1]. Surgical management includes shortening of the styloid process by either an external or intraoral approach [1]. Conservative management may include steroid injections, analgesics, antidepressant medications, anticonvulsant, and lidocaine [1]. Our patient was managed conservatively and was treated with dexamethasone 8 mg IV every 8 hours. The patient was discharged on day #4 of admission with ENT follow up in the outpatient setting.

4. Conclusion

Although rare, Eagle syndrome should be considered in the differential diagnosis of patients presenting with neurological symptoms without any objective etiology in addition to vague head and neck symptoms especially when an elongated styloid process is seen on a CT scan.

References

[1] Bokhari MR, Graham C and Mohseni M. Eagle Syndrome. [Updated 2020 Jul 20]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2020 Jan.

[2] Saccomanno S, Greco F, De Corso E and Lucidi D et al. Eagle's Syndrome, from clinical presentation to diagnosis and surgical treatment: a case report. *Acta Otorhinolaryngol Ital*. 2018 Apr; 38(2): 166-169.

[3] Han MK, MD, Kim DW, MD and Yang JY, MD. Non Surgical Treatment of Eagle's Syndrome - A Case Report -. *Korean J Pain*. 2013 Apr; 26(2): 169-72.

[4] Aydin E, Quliyev H, Cinar C and Bozkaya H et al. Eagle Syndrome Presenting with Neurological Symptoms. *Turk Neurosurg*. 2018; 28(2): 219-225.