Eagle Syndrome- Transcervical vs. Transoral approach

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Introduction

Eagle syndrome is a rare, commonly under diagnosed, condition caused by an elongated styloid process or calcified stylohyoid ligament causing pressure effects on various structures, such as the glossopharyngeal nerve. Typical presenting symptoms include odynophagia, dysphagia and foreign body sensation; with pain elicited by palpation of the tonsillar fossae. We present two cases of Eagle syndrome treated by two standard surgical methods, and discuss the advantages and disadvantages of each.

Case 1- Transcervical approach

Case presentation

57 year old gentleman referred by his GP to the otolaryngology department with 6 week history of persistent sore throat and dry throat but no other red flag symptoms. An ENT examination revealed only slight oedema to right arytenoid region. CT scan was performed which revealed abnormal calcification of the right stylohyoid ligament, in excess of 4cm length.

Procedure

The patient underwent external (transcervical) excision of the right styloid process. This was approached with a horizontal incision 3cm below the mandible, and an elongated styloid process was identified deep to the digastric muscle. Approximately 3.5cm of styloid process was excised. He was reviewed 6 weeks postoperatively and symptoms had completely resolved and was patient discharged.

Case 2- Transoral approach

Case presentation

48 year old lady referred by her GP with 6 month history of chronic cough, burning sensation in throat and globus sensation. A CT scan was arranged for suspected Eagle syndrome, and this confirmed bilateral elongation and calcification of the styloid process (Figure 1).

Figure 1. CT reconstruction demonstrating bilateral styloid process elongation

Procedure

An intraoral approach was undertaken. Initially a left tonsillectomy was performed followed by blunt dissection onto the left styloid process. Attached ligaments were removed with monopolar diathermy and approximately 1.3cm of styloid process was excised (Figures 2 and 3). At her post operative clinic review she reported significant improvement in her symptoms.

Figure 2. Styloid process seen following left tonsillectomy

Figure 3. Surgical specimen of excised styloid process

Transcervical

Transoral

Pros

- Improved surgical access
- Control of major vessels
- No need for additional procedure (i.e tonsillectomy)

Cons

- Surgical scar
- Potentially increased morbidity
- Increased surgical time

Pros

- No visible surgical scar
- Reduced operative time
- Potentially reduced morbidity

Cons

- Limited surgical access
- Reduced control over major vessels
- Tonsillectomy usually required

Conclusion

While Eagle syndrome is a rare condition it can cause debilitating symptoms for affected patients. Both transcervical and transoral approaches to treatment are well established, and these two cases showed favourable outcomes with both techniques.