Non Surgical Treatment of Eagle’s Syndrome
- A Case Report -

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Eagle’s syndrome is a disease without a clear lesion that is associated with repeated episodes of pharyngalgia, odynophagia, the sensation of a foreign body in the pharynx, tinnitus, and otalgia in which patients displaying these types of symptoms must be given a differential diagnosis. It is known to be characterized by styloid process elongation or increasing compression to adjacent anatomical structures through stylohyoid ligament calcification. In serious cases, continuous pressure to the carotid artery can lead to a stroke. Diagnosis is confirmed through clinical symptoms, radiological findings, and physical examinations. The most common type of treatment consists of a surgical excision of elongated styloid process. Nonetheless, this study presents a case of treating Eagle’s syndrome with conservative management. (Korean J Pain 2013; 26: 169-172)

Key Words:
Eagle’s syndrome, styloid process elongation, stylohyoid ligament calcification.

The styloid process is a protrusion of a long, thin, cylindrical bone from the temporal bone, which is located between the internal carotid artery and external carotid artery. The mastoid process is at the posterior of it and the tonsillar fossa is located inside it [1]. Eagle’s syndrome, first defined by W.W. Eagle in 1937, is pain caused by excessive growth or morphologic abnormality of the styloid process and calcification of the stylohyoid ligament [1,2].

Symptoms present diversely according to the length and width of the styloid process, angle and direction of the curve, and degree of calcification of the stylohyoid ligament. Recognized symptoms include facial pain, sore throat, otalgia, dysphagia, headache, and a sensation of a foreign body in the pharynx; in rare cases, alteration in taste or vocal changes can also be observed [1,2]. There are both surgical and conservative methods for treating Eagle’s syndrome, but in most cases, surgery is performed to remove the elongated styloid process at the outset. However, in this case, a conservative method was chosen due to the preference of the patient, and a significant treatment effect was observed. We report the case along with a literature review.

CASE REPORT

A 36-year-old female patient visited the hospital...
complaining of otalgia that had started approximately 3 years previously. The pain had been recurring 2 to 3 times a month, and there were no abnormalities in her medical history. No particular abnormalities were observed in the otoscopy performed by the otolaryngology department. The pain was characterized as a needle-like, piercing pain inside the ear, and it had worsened one week before the patient’s visit to the hospital.

In the physical examination, tenderness was felt in the left mastoid process. Although the styloid process was not felt, it caused pain when the tonsils were touched, and the patient complained of severe pain when turning her neck to the left. The VAS score was 8.

A radiograph (Fig. 1) and CT scan (Fig. 2) were taken for differential diagnosis of Eagle’s syndrome. The results showed that the length of the right styloid process was approximately 18 mm, within the normal range, whereas the left was approximately 30 mm, which was elongated compared with the right. The disease was explained to the patient and surgical treatment was recommended, but the patient refused. Hence, conservative treatment was selected and performed. Oral medication was begun with administration of gabapentin (Gabapentin®, Dong-APharm Co., Seoul, Korea) 300 mg/d, tianeptine (Stablon®, Jeil Pharm Co., Seoul, Korea) 1.5 mg/d, and tramadol hydrochloride 37.5 mg/acetaminophen 325 mg (Paracetamol®, Dong-APharm Co., Seoul, Korea) 3 tablets/d. In addition, approximately 1 ml of triamcinolone 10 mg combined with 0.3% mepivacaine 3 ml was injected once in the tonsils and tender areas. Afterwards, a stellate ganglion block was performed on the left side once a week for approximately 4 weeks.

The symptoms gradually improved following the drug administration and injection, and after two weeks, the VAS score had fallen to 2.

As the pain did not worsen during the 3-month monitoring period, drug administration was stopped. The patient agreed to consider surgical treatment in case of pain recurrence, and treatment was concluded.

**DISCUSSION**

Abnormal elongation of the styloid process occurs in approximately 4% of the population; among these, only 4% complain of symptoms. The condition is known to occur...