Eagle’s Syndrome: A case report

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Abstract

Eagle’s syndrome result from elongation of styloid process or mineralization of styloid ligament. Eagle’s syndrome include symptoms such as foreign body sensation, pain in the area of tonsillar fossa, pain which spreading toward ear. Diagnosis of Eagle’s syndrome can usually be made on physical examination by digital palpation of the styloid process in the tonsillar fossa. The treatment of Eagle’s syndrome is primarily surgical. In this article, we presented a 57-year-old male patient who was have a trauma of lower partial denture with of Eagle’s syndrome.

Keywords: Denture trauma, Eagle syndrome, throat pain.

Introduction

Eagle’s syndrome results from the elongation of styloid process or the mineralization of the styloid ligament. The symptoms were first described by W. Eagle in 1937 (1). It was seen over 30 years of age (2). The syndrome was occurred more frequently in women than in men and usually with bilateral calcification (3). The incidence of elongated styloid process was percentage 4% of population. The average length of styloid process in patients with Eagle’s syndrome is 2.5 cm (4). Patients often complain symptoms that including pain in the throat and ear, vertigo, voice alteration, cough, dizziness, sinusitis, conjunctival injection, headaches, and pain when turning the head and swallowing. The symptoms often cause continuous discomfort by the long time (5). The differential diagnosis of Eagle’s syndrome may include that temporomandibular joint (TMJ) diseases; trigeminal, sphenopalatine, and glossopharyngeal neuralgias; myofascial pain; mastoiditis; otitis; temporal arteritis; dental pain; chronic tonsillitis or pharyngitis; submandibular sialadenitis or sialolithiasis; esophageal diverticulosis; benign or malignant neoplastic disease; and pharyngeal foreign bodies (6). Diagnosis can usually be made on physical examination by digital palpation of the styloid process in the tonsillar fossa, moreover orthopantography can assist in diagnosis (7). Two treatment options that surgical and nonsurgical treatment have been described. Nonsurgical treatment involves patient reassurance, the use of analgesics, or the local injection of steroid. The surgical treatment of the calcified stylohyoid is performed using two different anatomical approaches (8).

Case

This article presents a 57-year-old male patient with trauma of the lower partial denture and Eagle’s syndrome. The patient complained of pain radiating to the throat and ear during eating and swallowing caused by lower partial prosthesis, and was admitted to the Faculty of Dentistry at Abant Izzet Baysal University (AIBU). The patient was contracted, but said the complaint was solved by the other dental clinics. He said that he had used the dental prosthesis for over fifteen years, but had experienced the sensation of a foreign body in his throat since the year before, as well as dull pain in his throat and ear during swallowing. The patient had attended a private dentist who had shortened the back and inner regions of the lower parts of his partial prosthesis. However, these efforts failed to resolve the issue.

After receiving the patient’s medical and dental history, a clinical and radiological examination was performed. Lower-upper partial prosthesis-related tap or tissue erosion was not observed on clinical examination. The mylohyoid region and base of mouth were normal. The tonsillar region was palpated resulting in pain radiating from the left side of lateral pterygoid muscle region to the tonsillar fossa region. Pain was also experienced on right and left lateral movement of the head. Elongated styloid processes on the right and left sides were found on the patient’s orthopantography (Figure 1).

Eagle’s syndrome was suspected and the patient was referred to an Ear, Nose and Throat (ENT) clinic. ENT consultation confirmed the diagnosis and the patient was given general information about resection of the styloid processes. However, the patient did not
accept the operation. Accordingly, the complaint does not stem from the lower partial prosthesis to the patient were expressed. A shorter edges of the lower partial denture bases made the defeat was delivered to the patient.

Figure 1. Orthopantogram –showing elongated styloid process both sides.

Discussion

Eagle's syndrome is seen in patients aged 30 years and over. Women are more prevalent (2). Our case focused on a 57-year-old male. Although the average length of styloid process is 25 mm, Moffat et al (9) reported length can range from 15.2 to 47.7 mm. In the current case, imaging indicated 38 mm and 52 mm long styloid process on the right and left sides, respectively. These values are above the limit values. Murthy et al (10) reported elongated styloid process are often seen bilaterally. In our case, the two-sided styloid processes were lengthened. Pain due to palpation of process on the right side was greater than on the left side.

A survey of the literature indicated both surgical and non-surgical treatment options. The surgical option involves resection of the styloid process. Non-surgical treatments include: non-steroidal anti-inflammatory drugs, long-acting local anesthetics, oral carbamazepine, and process finger broken unless (11). In our case, an effective surgical treatment was suggested to treat the patient, but he refused and decided to use anti-inflammatory drugs.

Head lateral neck radiography, antero-posterior skull radiography, town radiography, orthopantography, and computed tomography of the mandible are referred to as imaging techniques in the diagnosis of elongated styloid process (12). In our case, the length of the styloid process is easily visible in the orthopantography.

Zohar et al (13) stated that the symptoms of Eagle’s syndrome may interfere with dental pain. In our case, a large number of patient complaints of lower partial dentures were due to Eagle's syndrome. Radiological examinations are important for differential diagnosis.

Conclusion

In the diagnosis of wearing partial denture patients which sensation of a foreign body and dull pain in throat during swallowing should be consider not only denture trauma but also Eagle's syndrome.

References