



Dentistry And Neurology in the Differential Diagnosis of a Patient With Migraine, Temporomandibular Disorders and Eagle Syndrome: a Case Report

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Introduction:

The styloid process is a bony projection that is around 20 to 30mm long. The elongation of this structure associated with symptoms is known as Eagle's Syndrome (ES). It is believed that lengths greater than 40mm are strongly associated with pain complaints. It can be subdivided into the classic form, which is characterized by the presence of non-specific painful symptoms, difficulty and a foreign body sensation when swallowing. Its other variant, the styloid-carotid syndrome, can present visual symptoms, syncope, transient ischemic attacks or ischemic strokes.

Temporomandibular dysfunction (TMD) can be defined as pain in the masticatory and/or cervical muscles and alterations in the temporomandibular joint (TMJ), with or without functional limitations of the jaw and joint noises. TMD can be classified as a disorder of the masticatory muscles or of the joint, or mixed when it involves both structures simultaneously. Orofacial pain and migraine can have their symptoms associated with impairment of the pain modulatory pathway and the central sensitization process.

In addition, migraine is multifactorial and complex, and it is believed that there is a genetic pre-disposition, which associated with environmental and behavioral factors can cause changes in sensory susceptibility. Patients with this condition can present a variety of symptoms, with pain being the main disturbance, but not always the most uncomfortable. It can be characterized by a line of phases that can overlap, such as premonitory, aura, pain and post-dromic phases.

This study aims to report the case of a patient diagnosed with Migraine, Temporomandibular Dysfunction and Eagle's Syndrome, and how the signs and symptoms can make assertive diagnosis complex for the neurology and hospital dentistry team. Patient L.G.S.B, 52 years old, came to the Neurology Department of the Fortaleza-SESA General Hospital for migraine with aura and tension-type headache. She also had a previous diagnosis of sleep apnea, hypothyroidism, gastritis, reflux and TMD and an imaging exam dated 11 years ago, with an elongated styloid process. She had a dental history of incisal wear and the use of an interocclusal device and medication: dozemast, neutrofer, puran, imense and addera D3.

During the dental history, she reported pain in the left TMJ, difficulty chewing and opening her mouth, tinnitus, otalgia, vertigo, daily headaches, discomfort when swallowing, with emphasis on the left topography. On physical examination, palpation of the TMJ, masticatory and cervical muscles revealed local myalgia in the anterior and posterior temporal muscles, sternocleidomastoid and trapezius, as well as temporomandibular arthralgia. She opened her mouth with a deviation to the right, but without clicking or crackling.

Intraoral examination revealed partial bimaxillary edentulism and generalized occlusal wear, compatible with previous treatment and sleep bruxism. Due to a previous CT scan of the mandibular condyles, which showed an elongated styloid process, pain in the cervical region and difficulty with laterality, a new non-contrast CT scan of the face was requested, which showed a styloid process greater than 40mm.

Thus, we can see that the diagnosis of chronic pain can be complex, and a detailed anamnesis and a good clinical examination are essential, often requiring the use of complementary tests such as CT scans and panoramic radiographs. A specialized dentistry and the neurology team can contribute to an accurate diagnosis and more assertive approaches. In addition, the breadth of knowledge for both categories has a positive impact on improving patients' quality of life.

Keywords: Temporomandibular Joint Disorders; Migraine; Neurology; Dentistry; Eagle syndrome