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How to classify the stylohyoid complex syndrome in the ICHD

We have read the International Classification of Headache Disorders, third edition (beta) (ICHD-3 beta) (1), and for the first time headaches are attributed to inflammation of the stylohyoid ligament (SL). It is included among the secondary headaches in "Headache or facial pain attributed to disorder of the cranium, neck, eyes, ears, nose, sinuses, teeth, mouth or other facial or cervical structure."

This is positive news because stylohyoid complex syndrome (SHCS) is an uncommon disease and now plays a role in ICHD-3 beta, as suggested by Montalbetti et al. in 1995 in this same journal (2). Therefore, it is our opinion that SHCS is not fully understood in ICHD-3 beta.

SHCS is an uncommon condition related to degeneration or anatomical malformation of the stylohyoid complex (SHC), composed of the styloid process (SP), the lesser cornu of the hyoid bone and the SL that connects them. Three pathological conditions can develop in the SHCS: elongated SP, ossification or inflammation of the SL and an elongated hyoid bone. In SHCS there are two clinical groups: the classic variety presents with chronic neck pain, odynophagia, otalgia, dysphagia and foreign body sensation; the second variety is uncommon, since patients have neck and face pain plus headaches that are not relieved by common analgesics. In the first group one of the three pathological conditions of SHCS can provoke inflammation of soft tissues and neck nerves, while in the second symptom group the impingement of the SP on carotid vessels produces inflammation of the sympathetic nerve plexus in the arterial sheath with functional deficit. The mechanism is similar to cluster headaches in which carotid vasodilation pushes against the sympathetic plexus, producing a sympathetic deficit with release of vasoconstrictor tone.

In the English literature we have found seven cases of headaches caused by styloid process impingement on carotid vessels and in three cases three-dimensional (3D) computed tomography (CT) imaging (CT-3D) of the neck showed elongated SP and the diagnosis of SHCS was made (3). Koebke also reveals typical characteristics of early arteriosclerosis at the point of SP impingement on carotid vessels (4).

We have been treating a 35-year-old man who has been suffering from headaches for 10 years and who reported pain in the left cervical region. The 3D-CT imaging revealed a left cervical carotid artery compression due to an elongated SP.

This procedure facilitates visualization of the SL and the relationship between the SP and the carotid artery (Figure 1).

In conclusion, we believe that ICHD-3 beta can be improved: Point 11.8 states "headache or facial pain attributed to inflammation of the stylohyoid ligament," but this is just one of three conditions in the SHCS. The right title should be "headache or facial pain attributed to SHCS." For this reason, we propose that diagnostic B criteria should include radiologic evidence of "inflammation of the SL and/or elongated SP and/or the horn of the elongated hyoid bone" and that the C2 criteria should include pain caused by or exacerbated by head turning, chewing and swallowing.

It is our opinion that the second variety of SHCS in ICHD-3 beta should also be considered. We propose that the pressing of SP on the carotid artery can be classified as secondary headache at point

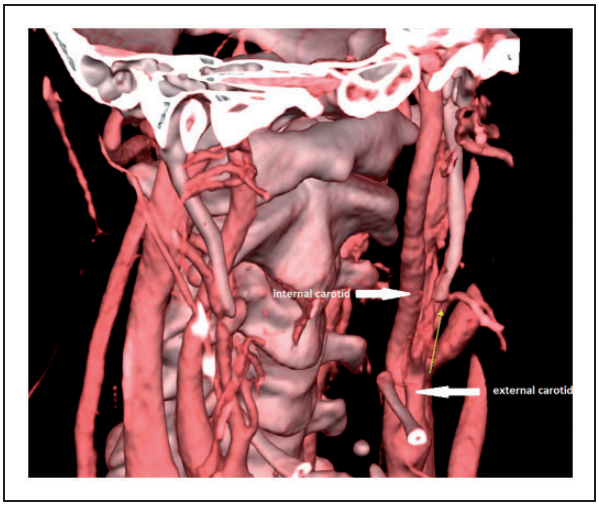

Figure 1. Computed tomography scan shows the styloid process compressing the external carotid artery (arrow).

6.5: "Headache attributed to cervical carotid or vertebral artery disorder," and we suggest 3D-CT imaging for probability diagnosis and styloidectomy for definitive diagnosis.

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Massimo Fusconi[1], Andrea Gallo[2], Antonio Greco[1], Andrea Ciofalo[1], Salvo Martellucci[2], Flaminia Campo[1], Caterina Marinelli[1] and Marco De Vincentiis[1]

[1]*Department of Sensory Organs*
[2]*Department of Surgical Biotechnologies and Science, ENT Section, University "Sapienza" of Rome, Italy*

Corresponding author:
Massimo Fusconi, Department of Sensory Organs, University "Sapienza" of Rome, Viale del Policlinico, 151, Rome 00161, Italy.
Email: Massimo.fusconi@libero.it