Anatomic and clinical correlation of styloid apparatus by 3d TC in eagle´s syndrome

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República Argentina. Styloid apparatus is constituted by the minor horn of the hyoid bone, the styloid process of temporal bone (SP) and the stylohyoid ligament (SHL); both SP and SHL pass through maxillopharyngeal space, presenting a close relation with the blood vessels and nerves of the retrostyloid space. The elongation of the SP and/or calcification of the SHL produces Eagle's Syndrome (ES) whose stylocarotid variant (when the compression of internal carotid artery and irritation of the branches of 9th cranial pair destined for the carotid corpuscle occur) causes syncope, pain and dizziness.The radiologic diagnostic modality of choice is Helical CT. The aim of this work focuses on a description of the relations of the styloid apparatus with adjacent structures which are evidenced by 3D CT, correlating them with bibliography of anatomy and symptoms of this syndrome. A 74-year-old patient with stylocarotid variant ES was evaluated through a volumetric CT scanner (General Electric) with 64 detectors by three diemnsional reconstructions. Selected technical parameters: 120 kV and 600 mAs with injection of 30 mL of physiological solution and 50 mL of contrast substance (7 mL/seconds) through a double-compress bomb. " Volume rendering " software was used for processing data. The tomographic cuts were oblique coronals and sagitals. Tomographic cuts showed a bilateral elongation of styloid process measuring 55 mm on the left side and 41 mm on the right (normal values: 25 to 30 mm), associated with bilateral calcification of stylohyoid ligament. Furher, it was possible to observe clearly an intimate relation of stylohyoid ligament with blood vessels and nerves of retrostyloid space, specially with internal carotid artery and glossopharyngeal nerve. The obtained results reflect the relevancy of the knowledge of the anatomy of the maxillopharyngeal space in order to be able to explain the clinic of styloid apparatus'affections in Eagle's syndrome, as well as the leading paper of the 3D CT for the evaluation of the anatomical structures of the mentioned region.

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