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OC-006 - (23812) - DEHISCENCE AND PROTRUSION OF NEUROVASCULAR STRUCTURES ADJACENT TO THE SPHENOID SINUS: COMPUTED TOMOGRAPHY ANGIOGRAPHY FINDINGS

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The sphenoid sinus is closely related to the optic nerve, internal carotid artery, maxillary nerve, and vidian nerve; their dehiscence and protrusion pose surgical risks. This study aimed to evaluate these anatomical relationships.
Brain CTA (Computed Tomography Angiography) of 60 patients was analyzed.
Dehiscence rates were 66.7% (40 patients), 63.3% (38 patients), 36.7% (22 patients), and 35% (21 patients) for the vidian nerve, carotid artery, optic canal, and maxillary nerve, respectively. Protrusion rates were 30% (18 patients), 15% (9 patients), 11.7% (7 patients), and 5% (3 patients) for the vidian nerve, optic canal, maxillary nerve, and carotid artery. Dehiscence and protrusion coexisted in 35% (21 patients) for the vidian nerve, 6.7% (4 patients) for the optic canal and maxillary nerve, and 5% (3 patients) for the carotid artery. Dehiscence or protrusion on either side was present in 88.3% (53 patients). Optic canal lateralization into the sphenoid sinus was observed in 23.3% (14 patients).

The vidian nerve had the highest dehiscence rate (66.7%), exceeding previous reports. Dehiscence rates for the optic canal and carotid artery were also higher than in the literature. Vidian nerve protrusion was most frequent (30%), while optic canal and carotid artery protrusion rates were lower than reported. Optic canal lateralization was more frequent. Unlike most studies using coronal and axial tomography, we demonstrated CTA's effectiveness in assessing these variations. Our findings align with the literature but show significant differences in variation rates. Preoperative identification of these neurovascular structures' dehiscence and protrusion will help minimize surgical risks.

Palavras-chave : dehiscence, protrusion, sphenoid sinus