ORIGINAL STUDY

Some radiological and clinical aspects of the sinus crista galli

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ABSTRACT

The advantages of CT scanning of the paranasal sinuses enabled otorhinolaryngologists to observe some anatomical entities in the patients, which in previous times were impossible to realize. Besides the well-known fact about the pneumatized middle turbinate and the perpendicular septal plate, the pneumatization of crista galli has been quite bashfully and scarcely recognized on CT scans since the very beginning of the use of this radiological method. On the other side, it seems that the incidence of pneumatization of crista galli is not that low. The so far published CT scans studies report on its incidence of 12-13.9%. We found this number higher: even 37.5%. We are the first to report on the inner dimensions of the crista galli pneumatization, i.e. the dimensions of the cavity within it, in both anterior-posterior direction (range 5.1 -12.4 millimeters) and lateral-lateral direction (range 3.1 to 7.1 millimeters). No correlation between the lateral-lateral dimensions and Keros types of the olfactory fossa slope 1, 2 and 3 was found. Also, no correlation was found between Hajiioannou types of crista galli base position 1, 2 and 3 and the dimensions of pneumatization. No clear signs that would suggest that pneumatized crista galli is just an additional compartment of the frontal sinus have been proven either. This anatomical entity seems to be a separate, real paranasal sinus: sinus cristae galli.

KEYWORDS: crista galli, pneumatization, sinus cristae galli, Keros classification, Hajiioannou classification

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