

MORPHOMETRIC ANALYSIS OF LARGER OPENINGS OF THE GREATER WING OF THE HUMAN SPHENOID BONE

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Analysis of the anatomical characteristics of openings in the greater wing of the sphenoid bone (round, oval and spinous opening – FR, FO and FS) has a clinical significance in surgical and diagnostic procedures. The aim of the study was to examine the morphological and morphometric characteristics of the round, oval and spinous openings in the human skulls. The research was conducted on 20 skulls housed at the Institute of Anatomy of the Faculty of Medicine in Niš. The skulls were numerated, and the openings were photographed against the ruler with a Canon A470 camera. Photo processing and morphometric analysis (measuring the length and width of the FR, FO and FS) were performed using ImageJ software. The average length of the FR on the right was 3.14 ± 0.77 mm and 3.44 ± 0.65 mm on the left, width on the right was 2.38 ± 0.58 mm, 2.61 ± 0.55 mm on the left; length of the FO on the right was 5.88 ± 0.88 mm, 5.50 ± 1.06 mm on the left, width on the right was 2.70 ± 0.58 mm, 2.82 ± 0.68 mm on the left; length of the FS on the right was 1.65 ± 0.27 mm, 1.73 ± 0.49 mm on the left, width on the right was 1.32 ± 0.32 mm, and 1.20 ± 0.39 mm on the left. The t-test of independent samples determined no statistically significant difference neither between the parameters on both sides, nor between the measured parameters of the same openings. A moderate positive correlation existed between FS length and width on the left, FR length and width on the right and between FS widths on both sides; a negligible positive correlation between the length and width of FO on the right and between lengths of the FS on both sides; a weak positive correlation existed between other measured parameters.

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