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ANATOMIC VARIATIONS OF FORAMEN OVALE
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Objective. The superior or cerebral surface of each greater wing of sphenoid bone forms part of the middle cranial fossa of the skull. In the posterior part of the greater wing is the foramen ovale, for the transmission of the mandibular nerve, the accessory meningeal artery, lesser petrosal nerve and an emissary vein. Foramen ovale opens into the infratemporal fossa through its other opening on the lateral surface of the greater wing. This study presents the anatomic variations in dimensions and appearance of foramen ovale.

Aim: to identify morphological variations and morphometric details of foramen ovale in dry adult skulls.

Materials and methods. 20 dried human skulls which were available in the Department of Anatomy, Belarusian State Medical University, Minsk, Belarus, were studied. Variations in appearance of foramen ovale were noted. Length, width, distance from the zygomatic arch and from midline of skull base to center of foramen ovale were measured.

Results and discussion. Present study was conducted on a total of 40 sides in 20 dry adult human skulls. The shape of the foramen was typically oval in most of the skulls (72.50%), with some bony variations such as almond (5.0%), round (12.5%) and irregular (10,0%) shape. Mean length of foramen ovale was 6.95 (6.15-7.80) mm on right side and 6.45 (5.80-7.15) mm on left side. Mean width of right foramen ovale was 4.0 (3.85-4.25) mm, of left foramen ovale 4.05 (3.95-4.85) mm. Distance from center of foramen ovale to the zygomatic arch was on the right was 34.0 (32.10-35.70) mm, on the left -32.55 (30.90-35.10) mm. Distance from the center of the foramen ovale to the midline of the base of the skull 26.35 (25.20-27.00) mm on the right and 25.40 (24.50-27.00) mm on the left.

A Spearman's rank-order correlation was run to determine the relationship between distance from foramen ovale to the midline and to the zygomatic arch. There was a very strong, positive correlation between distance from foramen ovale to the zygomatic arch from right and left sides, which was statistically significant ($r_s = 0.84$, $p < 0.05$), and was a strong, positive correlation between distance from foramen ovale to the midline from right and left sides, which was statistically significant ($r_s = 0.47$, $p < 0.05$).

Conclusion. There was no statistically significant difference between the two sides in length and width. The location of the foramen ovale depends more on its relation to the zygomatic arch than to the midline of the skull.