7. VARIATION OF THE MASTOID SEGMENT OF THE FACIAL CANAL AND OF THE STYLOMASTOID FORAMEN

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Introduction. Taking into consideration that the ratio of the facial nerve iatrogenic injuries in primary mastoidectomy is 0.6%-3.7%, and a twice higher ratio of 4%-10% is reported for the revision surgery, the knowledge about variability of the mastoid segment of the facial canal and its exit orifice is of high clinical significance for the head and neck surgery.

Aim of study. The purpose of our study was to determine the variability and specific features of the mastoid segment of the facial canal and of the stylomastoid foramen.

Methods and materials. Our research was carried out at the Department of anatomy and clinical anatomy of *Nicolae Testemitanu* State University of Medicine and Pharmacy of the Republic of Moldova. Out of 82 temporal bones, 41 were from the right side and 41 were from the left one. The length of the mastoid segment of the facial canal, its exit angle, the transverse and longitudinal diameters of the stylomastoid foramen were taken. For the database storage an Excel 2019 sheath was used. For the statistical analysis of the obtained morphometric parameters the descriptive and inferential statistics methods were applied.

Results. Three variants of the mastoid segment exit angle were determined: sharp, right and obtuse angles. The exit angle of the mastoid segment on the right temporal bones had a mean value of 112.9±23.61° and on the left side it was 113.1±19.76°, p=0.971. The mean length of the mastoid segment on the right temporal bones was 15.7±3.66 mm and on the left bones it was 14.5±3.84 mm, p=0.153. The transverse diameter of the stylomastoid foramen on the right specimens was 2.9±0.80 mm, and on the left ones it was 2.4±0.60 mm, with a statistically significant difference, p=0.012. The longitudinal diameter of the right stylomastoid foramens had a mean value of 3.3±0.96 mm, and of the left orifices it was 2.7±0.81 mm, with a statistically significant difference, p=0.007. Variable shapes of the stylomastoid foramen were established: oval, round, triangular, quadrangular, semilunar and irregular shapes.

Conclusion. Both the mastoid segment of the facial canal and the stylomastoid foramen are subjected to individual variability. Three variants were characteristic of the mastoid segment exit angle: sharp, right and obtuse ones. The exit angle of the mastoid segment of the facial canal was higher on the left side, but the length of the mastoid segment was higher on the right side. Both the transverse and the longitudinal diameters of the stylomastoid foramen were higher on the right side. The transverse diameter of the stylomastoid foramen, on both sides, had lower mean values compared to the mean values of its longitudinal diameter.

Keywords. Facial canal, mastoid segment, stylomastoid foramen, variability, morphometry