

253. CONNECTIONS OF THE MOTOR BRANCHES OF THE FACIAL NERVE

Author: **Angela Babuci**

Scientific adviser: Iliia Catereniuc, MD, PhD, Professor, Department of Human anatomy

Nicolae Testemitanu State University of Medicine and Pharmacy of the Republic of Moldova

Introduction. Considering superficial location of the extracranial branches of the facial nerve, and susceptibility of those branches to both injuries in facial surgery and facial traumas, knowledge about connections of the motor branches of the facial nerve doubtless are of clinical significance.

Aim of the study. To establish types of connections between the motor branches of the facial nerve.

Materials and methods. Thirty one adult cadaveric semiheads fixed in formaldehyde solution were dissected using Vorobiov's method of anatomical dissection and types of connections between the motor branches of the facial nerve were marked out. The specimens were dissected at the Chair of Human anatomy of Nicolae Testemitanu SUMPh and the research project was approved by the Ethics Committee of the same University.

Results. Different types of connections between the motor branches of the facial nerve have been highlighted by dissection of its extracranial branches. It should be mentioned that in all our cases were revealed connections between the motor branches of the facial nerve. In about 92% of cases small loop-shape connections of the ending branches were marked out. Another feature that worth to be mentioned was variable shapes of connections in the same individuals that should be kept in mind in surgery of the OMF region. Between the temporal, zygomatic and buccal branches of the facial nerve were distinguished wide-loop connections of various shapes: triangular, round, oval, linear and quadrangular. In 3 cases there were double connections between the cervical branch of the facial nerve and transverse cervical nerve, but in one case there were multiple connections between those branches revealed on both semiheads of the same cadaver. In about 89% of cases the loops were very small and distally located, close to the innervated muscles. Large oval-shape loops were marked out in 12 cases, formed immediately after division of the facial nerve trunk into its temporofacial and cervicofacial branches.

Conclusions. Connections between the motor branches of the facial nerve were of wide range of variability. It should be pointed out that even on the both semiheads of the same individual connections varied in shape being triangular, round, oval and quadrangular. In the proximity of the facial nerve trunk the loops were large and less in number, but smaller, more in number and of greater variability close to the innervated muscle. We believe that along with other factors that influence patients' recovery after surgery of the OMF region, connections of the motor branches of the facial nerve are of great clinical significance.

Key words: facial nerve, motor branches, connections, variability, loops

254. VARIABILITY OF MAXILLARY SINUS

Author: **Ana Moraresco**

Scientific adviser: Iliia Catereniuc, MD, PhD, Professor, Department of Human Anatomy

Nicolae Testemitanu State University of Medicine and Pharmacy of the Republic of Moldova

Introduction. The individual anatomical variability denotes the diversity of possible variants of anatomical formations contained between the two extreme forms, parameters in which all manifestations of variability are treated as a norm, unlike those that exceed them and can be treated as abnormalities. The reason for initiating the study is the non-matching of topography, shape, size, etc. of the maxillary sinus (MS) visible during surgical interventions to the so-called

norm described in the textbooks, the imperfection of some surgical approaches that do not take into account individual differences, the surgeons' dissatisfaction with anatomical data provided by bibliographic sources, especially in case of promotion of new surgical techniques.

Aim of the study. To determine the individual anatomical variability of the maxillary sinus depending on age and gender, based on the analysis of bibliographic data and materials of own researches.

Materials and methods. This study is based on a analysis of bibliographic data from literature with description of maxilla structure, MS variants and anomalies. 53 images of computed tomography by 3D reconstruction were selected from the database of the Maxillo-Facial Surgery Department of the Institute of Emergency Medicine (Chisinau Municipality) as a tool for researching the individual anatomical variability of MS (topography, presence of septa, pneumaticity, shape and dimensions depending on gender, etc.). The imaging examination has given us the possibility to study the anterior-posterior, lower-upper and transverse diameter of maxillary sinus, as well as the shape, pneumaticity and the presence/absence of septa in the sinus. The comparative MS analysis in people of different age and gender was used as a method of research.

Results. The data obtained show that 5 out of 30 women (16.66%) have MS septa, whereas the presence of septa in men was established only in 2 out of 23 (8.69%). Having analyzed the obtained results, we can conclude that in all the patients examined, the MS had the form of a quadrilateral pyramid. In terms of gender particularities, we can state that all sinus diameters are higher in men than in women, furthermore, the right and left MS in the same person are asymmetrical. By using a statistical test, we have obtained $p < 0.05$ for all sinus diameters.

Conclusions. The data obtained demonstrate that the diameter of the maxillary sinus in men is obviously bigger than the diameter of the maxillary sinus in women. The maxillary sinuses show variations in their degree of pneumaticity and layout of septa. These variants must be known both for the application of proper therapy and for the prevention of complications that may occur in the course of sinusitis.

Key words: individual anatomic variability, maxillary sinus, morphometry

255. MORPHOLOGICAL AND IMAGING EVALUATION OF THE UPPER LIMB ARTERIES VARIABILITY

Author: **Zinovia Zorina**

Scientific adviser: Ilia Catereniuc, MD, PhD, Professor, Department of Human Anatomy *Nicolae Testemitanu* State University of Medicine and Pharmacy of the Republic of Moldova

Introduction. The need for a deep morphological study on the issue of variability of the upper limb arteries is dictated by the modern requirements of practical medicine, as the number of surgical interventions, therapeutic and diagnostic procedures on the upper limbs have lately considerably increased.

Aim of the study. Identification and description of morphological variability of the upper limb arteries by means of classical dissection and imaging methods dependent on age, gender and side of the body.

Materials and methods. The study was performed at the Chair of Human anatomy of Nicolae Testemitanu SUMPh, on 26 formalin-treated upper limbs of adult cadavers (7 of those were bilaterally dissected) and on 34 CT angiographies performed on the device Light speed VCT 64 slides, from the database of the archives of the Euromed Diagnostic Medical Center. The study was carried out on 25 male and 21 female between the ages of 55-70. The macroscopic study was performed according to the anatomical dissection method by Vorobiov V. P., as a result of which the arteries of the upper limb with terminal and collateral branches were highlighted. The