

Introduction. The facial nerve derives from the facio-acoustic primordium that gradually differentiates into the facial nerve and acoustic ganglion. At the end of embryonic period, all derivatives of the facial nerve are distinguished.

Aim of the study. The aim of our study was to emphasize the peculiarities of the facial nerve embryogenesis.

Materials and methods. The development of the facial nerve was studied on 39 series of sagittal, frontal and transverse cross-sections of human embryos at Carnegie stages 13-23 from the embryological collection of the Department of Normal Anatomy of the Belarusian State Medical University from Minsk.

Results. At stage 13 the facio-acoustic primordium split into the facial nerve and acoustic ganglion. During stages 15-17 the intracranial connections of the facial nerve with the trigeminal and glossopharyngeal nerves were distinguished. The facial nerve appeared as a dark impregnated trunk, that later converted into a loose neurofibrous structure. The peripheral branching of the facial trunk into the temporofacial and cervicofacial divisions was distinguished at stage 14. At the beginning of stage 15 the parotid plexus branches were marked out. The geniculate ganglion appeared as an ovoid structure, consisting of nervous fibers and rows of growing neuroblasts. At stage 15 the chorda tympany nerve derived from the geniculate ganglion and it run between the auditory ossicles. At the end of stage 15, beginning of stage 16 the greater petrosal nerve was distinguished, and at its origin the nerve was thick, but slightly after that it continued into a thin twig that distally connected with the lesser petrosal nerve and then disappeared into the surrounding mesenchyme.

Conclusions. The facial nerve derived at stage 13 from the facio-acoustic primordium. At stages 15-17 the intracerebral connections of the facial nerve with the trigeminal and glossopharyngeal nerves were well distinguished. The geniculate ganglion consisted of nervous fibers and neuroblasts in growth. The chorda tympany nerve was one of the earliest branches that derived from the facial trunk, and then the greater petrosal nerve appeared. The temporofacial division of the facial nerve was better developed in comparison with the cervicofacial one, and in the infraorbital region, it had a plexiform character.

Key words: embryo, facial nerve, geniculate ganglion

253. ANATOMICAL VARIATIONS OF THE UPPER LIMB NERVES

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Introduction. The puncture and catheterization of the main arteries of the upper limb, as well as the nerve blocks that are often performed by surgeons, are considered „blind” methods, the success of which depends on their in-depth knowledge of the anatomy of the nerves and blood vessels of the given level. The existence of anatomical variations (AV) of the nerves of the upper limb (UL) must be taken into consideration when selecting the intervention tactics, otherwise the risk of mono- or polyneuropathy may increase.

Aim of the study. Identification of AV of the nerves of the UL depending on gender and laterality.

Materials and methods. A morphological, descriptive study of the brachial plexus (BP) branches was performed on 30 upper limbs (14 male and 16 female), collected from formalin-

treated adult cadavers, selected from the Department of Human Anatomy of *Nicolae Testemitanu* State University of Medicine and Pharmacy. By anatomical dissection method the formation of UL nerves, their interconnections, topography and relation to the accompanying arteries, as well as the existent variations were evaluated.

Results. Anatomical variations were identified in 6 UL, 4 of them were male (3 right upper limbs and 1 left upper limb) and 2 female (both right upper limbs). Variations of median nerve (MN) formation were identified on 2 UL (both male, right upper limbs); in the first case MN was formed by three roots, coming from the three cords of BP, and in the second case - it was formed by a single root that started from the medial cord of the plexus. On one left UL of a male, an abnormal relationship of MN with axillary artery (AA) was determined; it was formed from its usual roots, but posterior to AA, and continued to run on the arm lateral to the brachial artery until the cubital fossa, where MN crossed it anteriorly and lied medial to it. On one right UL of a female, the formation of the ulnar nerve from the lateral cord of the BP was established; it passed below the biceps brachii muscle and reached the medial bicipital groove in the middle 1/3 of the arm, after which it passed posterior to the medial epicondyle of the humerus, and then on the forearm to continue its classic path. Variations of connection of BP nerves were found on 2 right UL (one of each gender); in one case the connection between the axillary and radial nerves was identified, and in another case – the connection between the median and musculocutaneous nerves was identified.

Conclusions. More often, the right male upper limbs are exposed to variations of the median nerve.

Key words: brachial plexus, anatomical variations

254. CONJOINED TWINS – MORPHOCLINICAL ASPECTS

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Introduction. One of the most interesting and hard to manage congenital malformations refers to legendary conjoined twins. This abnormality has a rare occurrence in medical practice. Frequently, the twins are born dead, but there are few cases when they survive. Current technology is lending a helping hand in the early diagnosis of these conditions. More commonly known as „Siamese twins”, this phenomenon is shrouded in mystery and considered a curiosity by general public. The cause of conjoined twins is unknown. Two theories have been postulated to explain the origin of this phenomenon: the *fission* and the *fusion* theories. Until now, more than 250 separation surgeries have taken place around the world and with very rare incidence of successful separation surgery as per the current literature available.

Aim of the study. To analyze the history, epidemiology, etiology, diagnosis, management and other morphoclinical aspects of conjoined twins.

Materials and methods. Scientific articles were selected from PubMed, Hinari and Cambridge University press databases. The research was not delimited to a specific period of time and was supplemented with bibliographic data from statistic sites, of the Ministry of Health, Labour and Social Protection of the Republic of Moldova, and the exhibits of the Anatomic Museum of *Nicolae Testemitanu* State University of Medicine and Pharmacy were analyzed.