



lower half of the rhomboid fossa, which is the bottom of the fourth ventricle, and separating it rope bodies, lower legs of the cerebellum. The MO as well as the spinal cord (SC) performs two functions reflex and conductive. Eight pairs of cranial nerves (from V to XII) leave the medulla and the bridge, and the former as well as the spinal cord has sensory and motor direct links with the periphery.

**Results.** Through the MO the following reflexes function: protective reflexes (cough, sneezing, blinking, tearing, vomiting), food reflexes (sucking, swallowing, secretion of digestive glands), cardiovascular reflexes regulating the activity of the heart and blood vessels. Also the automatically functioning respiratory center which provides ventilation is located in the MO and vestibular nuclei are located here. Therefore, not just delete, but even damage of the MO results in death. In addition to the conductive function, the medulla performs the explorer function. The conductive paths run along the MO. They connect cerebral cortex, diencephalon, midbrain, cerebellum and the SC with two-way link. The descending vestibulospinal tract begins from the vestibular nuclei of the MO. It is involved in the implementation of the posture reflexes, namely the redistribution of muscle tone. Poliomyelitis affects motor neurons in the SC and the MO (only in the cases when the virus from the intestine penetrates into the blood, then into the CNS passing the blood-brain barrier.) They are the motor neurons that cause all the muscles of the body to move. In some cases paralysis occurs quickly, as if suddenly, sometimes paralytic phenomena are increasing gradually for several days. Covering more and more muscle groups, paralysis can affect the respiratory muscles. Then only the emergency medical service and artificial respiration save from death.

**Conclusion.** Thus, the medulla oblongata is the vital part of the human body, because the respiratory and cardiovascular centers are placed, and protective and digestive reflexes function there.

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## **INTRATRUNCAL STRUCTURE OF THE NERVES OF THE SUBOCCIPITAL MUSCLES**

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**Introduction.** Normal functional activity and pathological changes of the musculoskeletal system is closely connected with the structure of nerves, especially afferent and efferent nerves and their endings. So this theme is very important for better understanding of functioning of the peripheral nervous system, its influence on the certain skeletal muscles.

**Materials and methods.** There were used materials of posterior rami of C<sub>1</sub> and C<sub>2</sub>, cadavers and histological materials of myelin fibers of the nerves of the animal and human suboccipital muscles.

**Results.** Learning intratruncal structure of the nerves of the suboccipital muscles shows uniformity of organization of these nerves. Their specific features include distinctions in the metric parameters which correlate with size of the examined animals. Analysis of the myeloarchitectonics of the nerves of the suboccipital muscles of human had shown that these nerves has myelin fibers of all subdivisions of the "A" type. 4 – 5 months fetus has myelin fibers with small and medium diameter in all examined muscles. Different nerves contain 80 – 84% of this fibers. During next months of embryogenesis intense increase of



number of the myelin fibers takes place. However the pace of this number increasing varies for examined nerves. In the 4 month fetus maximum number of the myelin fibers could be found among the nerves obliquus capitis superior muscle; in the 7 month fetus number of the myelin fibers is equal in all muscles. Before birth the number of myelin fibers is maximum among the nerves of the obliquus capitis inferior muscle and minimum among the nerves of the obliquus capitis superior muscle. Formation of conductory element of the examined muscles outpaces the process muscle “maturation” so it testifies about heterochronic development of suboccipital muscles and their nervous apparatus. Observed intense myelinisation of the nerve fibers in the examined nerves during the second part of embryogenesis coincides with the period of intense development of receptors in skeletal muscles described by L.K. Semenova (1961). Their differentiation proceeds intensively in the period of vertical statics formation (till the age of 3). In the age of 11 – 13 motor endings reach the definitive differentiation. Analysis of the myelin fibers contents according to their groups (thin, medium, thick and very thick) had shown that the nerves of each examined muscle has its own proportions of numbers of myelin fibers of different diameters. These proportion varies according to age. 4 months fetus has mostly thin (80 – 84%) and medium fibers. 7 months fetus has more medium fibers and some thick (10 – 18%) and very thick fibers. Number of thick and very thick myelin fibers increases till birth and in the first 2 – 3 years of the postnatal period. Then the increase rate slows down and the number of fibers reach the final point to the adult age. In the nerves of different suboccipital muscles of adults mostly medium and thick myelin fibers (65%) are found. The percentage of thin fibers is 23 – 26% and very thick – 6,2 – 7,3%. N.V. Mikchailov, L.D. Piontkovskaya and others who studied innervations of another body parts note this regularity. Observed features of myelogenesis of the nerves of the suboccipital muscles nerves shown that it consists of three stages. The stage of productive myelogenesis includes two phases: first phase lasts for 2 – 3 years of the postnatal life, second one continues till the end of the puberty period. It should be noted that before this age motoric and sensory regions of the brain are formed and matured, as well as afferent and efferent endings in the muscles are. Stage of stabilization of myelotectonics of the nerves of the suboccipital muscles corresponds to the adult age (first and second periods) and the stage of involution corresponds to advanced age and senium.

**Conclusion.** Change of number of fibers in the nerves depends on the muscles volume development but also outpaces it. Presence of large number of thin and medium fibers in the examined nerves is caused by their participating in innervations of the connective tissues surrounding joint capsules and ligaments. The percentage of different types of myelin fibers varies according to the age.

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**INVESTIGATION OF ANALGETIC AND ANTIPYRETIC ACTION OF  
PARACETAMOL WITH CAFFEINE COMPOSITION IN EXPERIMENT**

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**Introduction:** In modern medicine combined medicinal remedies are applied with increasing frequency. It is known that a medicine drug of methylxanthine group – caffeine is often a part of them. It increases analgetic action of anti-inflammatory drugs. In previous