

**МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ
ВИЩИЙ ДЕРЖАВНИЙ НАВЧАЛЬНИЙ ЗАКЛАД УКРАЇНИ
«БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ»**



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101 – ї

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професорсько-викладацького персоналу

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**PECULIARITIES OF MORPHOGENESIS AND TOPOGRAPHY OF THE THORACIC
SPINE OF THE SPINAL COLUMN IN THE PRENATAL PERIOD OF HUMAN
ONTOGENESIS**

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The urgency of the work is explained by the necessity of a complex study of the development peculiarities, topography formation of structures of the thoracic spine of the spinal column and dynamics of their syntopic correlation in the prenatal period of ontogenesis and in the newborns, that is of great significance for elucidation of the morphological preconditions and time of the possible origin of the congenital spinal defects with the object of the development of new, more rational methods of surgical interventions in this area, elaboration of new stabilization technologies and spinal column correction at disabling deformities of the spine in children and adolescents.

The aim is at the ascertainment of chronological sequence of the development and formation of the topography structures of the section of the thoracic part of the spinal column in the early period of human ontogenesis. The topographic and anatomical features of the relationships between the structures of the thoracic part of the spinal column from the moment of their laying to birth, dynamics of their formation and growth taking into account morphogenesis of the adjacent structures are established. With the help of the adequate morphological methods, investigation of morphogenesis and dynamics of spatial-time relationships of the thoracic spine of the spinal column of a person, their connections during the fetal period of the development and in the newborns from the point of view of the topographic-anatomical approach to embryogenesis problems was carried out. The features of the blood supply and venous outflow of the spine are ascertained. Critical periods, morphological preconditions and time of the possible origin of some innate defects of the spinal column were established. On the basis of the obtained results, the problem of prenatal diagnostics of the innate malformations of the thoracic part of the spinal column was solved.

The thoracic vertebrae laying occurs in the germs of 7.0-9.0 mm CRL by forming the condensation of sclerotome cells round the chord and the nervous tube, from which mesenchymal thoracic vertebrae are formed. The vertebral bodies are formed from the cranial and caudal parts of two adjacent sclerotome masses. Intersegmental arteries remain on the level of the vertebral bodies, and the spinal nerves lie between thoracic vertebrae. In the germs of 10.0-12.5 mm CRL the arches of the vertebrae move away from the bodies perpendicularly in the dorsal direction.

The formation of articular and transverse processes begin. At this early stage of the development there are no joints in the spinal column of the germs, the spinal canal forming begins. Bodies are clearly defined from the thoracic vertebrae, and in the lumbar and sacral vertebrae only arches are clearly visible and closely spaced bodies. The vertebral bodies at this stage are well differentiated. All of them have the same, primitive, quadrilateral body shape and are separated from each other by a layer of mesenchyma. The layers correspond to the future intervertebral discs.

Kryvetskyi V.V.

**PECULIARITIES OF MORPHOGENESIS AND TOPOGRAPHY OF THE THORACIC
PART OF THE VERTEBRAL COLUMN IN THE PRENATAL PERIOD OF HUMAN
ONTOGENESIS**

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On these early embryonic stages, the backbone of the skeleton, being in a significant development, is still at the base of the skeleton. Of the two layers that are distinguished in the chord in those vertebrates, in which it functions in an adult state, only one layer can be differentiated in a person, the so-called "epithelium" chord. It is presented in the germs of 10.0 - 12.0 mm CRL, the correct rows of narrow, elongated, small epithelioid cells located on the periphery of the body on both sides and returned with the basal ends to the middle, to each other. The thoracic spine of the spinal column in the prenatal development has 3 stages of the development: connective tissue (7,0-14,0 mm CRL), cartilage (15,0-45,0 mm CRL) and bone (45,0 -360,0 mm CRL) . In the germs of 7,0-9,0 mm CRL vertebrae laying is only in progress. The embryo has one general curvature directed dorsally. This curvature is more pronounced in the thoracic department, which is due not so much to the skeleton that began to develop from mesenchyma, but rather more prevalent spinal cord, sharply bent at the dorsal side.

The germ line period is characterized by rather rapid qualitative changes in the development of the spinal column and sympathetic trunk and is one of the critical periods of organogenesis of the nodes of the sympathetic trunk and spine.

Lavriv L.P.

ANATOMY OF THE PAROTID GLAND STRUCTURE IN HUMAN FETUSES

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Formation of the organs is a very complicated process which is not definitively studied nowadays. It is very important to study the structure of the organs and systems in association with