

Eskandari E.

DEVELOPMENT OF THE HUMAN NOTOCHORD

Scientific advisors prof. Kabak S. L., MD, senior lecturer Zatochnaya V. V.

*Department of Human Morphology
Belarusian state medical university, Minsk*

Introduction. The notochord – the embryonic axial structure (a primitive form of cartilage), which for some time performs the function of the axial structure of the embryo, and is also an inducer of development of the central nervous system and axial skeleton. The notochord is a major regulator of embryonic patterning in vertebrates and abnormal notochordal development is associated with a variety of birth defects in man.

Aim. To describe the development of the chord in human embryos and to discover the prerequisites for the presence of this structure in adults during the development of skull base bones in embryogenesis

Material and methods. 36 serial histological sections of embryos from 8 to 130 mm crown-rump length impregnated by the silver nitrate according to Bilshovsky-Buke and stained with hematoxylin and eosin were studied, 1CBST scan of the adult human vertebral column.

Results. Progressive degeneration of the notochord begins at the base of the skull at 12th week, and it ends at 16th week of fetal development of human embryos. In the region of the spine, the remains of the notochord in an adult are present in the form of a gelatinous nuclei, which are located in the center of the intervertebral discs. The presence of the notochord remains at the head end of the embryo is determined during the development of the basilar part of the occipital bone and the body of the sphenoid bone in embryogenesis. It has the appearance of the bony canal in the region of the clivus of the skull on CBCT scans.

Conclusions. Proper knowledge of the development of the human notochord, therefore, is important to understand the pathogenesis of the birth defects.