

Configuration (molding) of the skull and birth trauma

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Abstract

Configuration is an evolutionarily formed process that ensures the adaptation of the size and shape of the head to the birth canal of the mother, and also prevents birth injury to the mother and fetus. The configuration can be physiological and pathological. The pathological configuration is accompanied by birth mechanical damage, and the physiological - no, prevents birth trauma (BT). The pathological configuration is divided into 1) excessive, 2) rapid and 3) asymmetrical [1]. Three degrees of configuration can be distinguished [12] - 1) light, 2) moderate and 3) pronounced. 1 degree - bones overlapping along one of the sutures, 2 degree - bones overlapping within 2-3 sutures, 3 degree - bones overlapping at 4-5 sutures. Clinical and experimental studies have shown that head compression leads to deceleration of cardiac activity. The pathological configuration leads to both birth trauma (BT) and compression hypoxia (CH) of the brain. In BT, pronounced mechanical damage dominates in the form of ruptures of TC, falx, bridging veins, fractures, large focal subarachnoid and intracerebral hemorrhages, subdural hemorrhages, etc. In CH, hypoxic damage to the brain caused by impaired blood circulation, venous congestion, increased intracranial pressure, compression of the blood vessels of the brain, and others dominate: spotted subpial hemorrhages at the apex of the convolutions, subarachnoid hemorrhages in areas of the cerebral hemispheres where bridging veins connect with the arachnoid membrane, hemorrhages in the region of the quadrangular lobes of the cerebellum, etc. When studying the skull, a connection was found between asynclitism and damage (rupture, hemorrhage) of the tentorium cerebelli. Studying the configuration of the fetal head during childbirth can help in the diagnosis and prevention of BT and CH.



Biography

Vasily V. Vlasyuk is the doctor of medical Sciences, Professor, Academician of the European Academy of Natural Sciences, Academician of the International Academy of inventions and discoveries. Now he works as Expert Department of forensic medicine of the S. M. Kirov Military Medical Academy, Saint-Petersburg. After graduating from the Leningrad Pediatric Institute he is worked in the Institute of Perinatal Medicine, Obstetrics and Gynecology, Neurosurgical Institute in St. Petersburg, Head of the Laboratory of morphology in the Institute of mycoses, Children's Hospital name K.A.Raufus, Head of Department Institute of Childhood Infections and others. He has worked in Mongolia as an expert WHO on child mortality. His major research interests in the pathology of the central nervous system in fetuses and newborns, birth injury, intracranial hemorrhages, childhood infections, immunohistochemistry. Make scientific discoveries about the correlation between changes in the skull and damage to the cerebellar tentorium.

Publication

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