

**МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ
БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ»**



МАТЕРІАЛИ

**104-ї підсумкової науково-практичної конференції
з міжнародною участю
професорсько-викладацького персоналу
БУКОВИНСЬКОГО ДЕРЖАВНОГО МЕДИЧНОГО УНІВЕРСИТЕТУ
06, 08, 13 лютого 2023 року**

Конференція внесена до Реєстру заходів безперервного професійного розвитку,
які проводитимуться у 2023 році №5500074

Чернівці – 2023

fetuses of 20.0-24.0 mm PCL, a slight slowdown is observed, and in pre-fetuses of 50.0-79.0 mm PCL, there is an intensive increase in the morphometric parameters of the esophagus, accompanied by the establishment of close topographic-anatomical relationships with the trachea, vagus nerve, aorta and mediastinum pleura.

Garazdiuk M.S.

POSSIBILITIES OF TRADITIONAL HISTOLOGICAL METHODS OF STUDYING THE SUBSTANCE OF THE HUMAN BRAIN FOR DIAGNOSING THE GENESIS OF THE FORMATION OF HEMORRHAGE IN ITS SUBSTANCE

*Department of Forensic Medicine and Medical Law
Bukovynian State Medical University*

Introduction. Traumatic brain injury is one of the most common injuries. Therefore, the identification and diverse morphological assessment of injuries to the skull bones and brain tissues require a methodologically correct approach. One of the debatable issues in forensic traumatology is the differential diagnosis of haemorrhages in the human brain (HB) of traumatic and non-traumatic genesis. There are cases when during autopsy it is difficult for an expert to diagnose the genesis of a haemorrhage only macroscopically, so material should be additionally selected for forensic histological examination.

The **aim** of the work is to develop forensic medical criteria for the differentiation of haemorrhages of traumatic (HTG) and non-traumatic (HNG) genesis by the method of light microscopy of histological sections of HB.

Materials and methods. For the research stained histological brain specimens were used from 110 cadavers in the following cases: deaths from HTG- 40 histological samples (1 group), of which there were produced 40 preparations stained by the methods of Nissl and Shpiel-Mayer; deaths from HNG – 40 histological samples (group 2): 40 preparations each stained similar to the previous group. The control group was formed by brain preparations in case of death from ischemic hearts disease - 30 samples (group 3): 30 preparations each, stained according to the methods of Nissl and Shpiel-Mayer.

Results. Analysis of the received histological examination data considering morphological changes of tissue elements of the human brain substances with different genesis of the formation of haemorrhages revealed the absence of stable relationships between changes in the structure of the nervous tissue and the cause of the formation of haemorrhages. The same type of degenerative changes were present in both groups of samples, regardless of the genesis of haemorrhage.

Conclusion. Histological methods of studying the substance of the human brain, namely staining according to the methods of Nissl and Shpiel-Mayer, are not effective for diagnosing the genesis of haemorrhage.

Garvasiuk O.V.

CHARACTERISTICS OF LIMITED PROTEOLYSIS IN PLACENTAL FIBRINOID IN COMBINATION WITH BASAL DECIDUITIS AND IRON DEFICIENCY ANEMIA IN GRAVIDAS

*Department of Pathological Anatomy
Bukovinian State Medical University*

Introduction. Many scientific papers have been devoted to the problem of inflammation of the manure and iron deficiency anemia in gravidas due to the high frequency of these conditions. However, it is important to investigate their interaction, in order to expand and supplement the information base of the pathomorphology of placental insufficiency, which is a common morphological manifestation for these conditions.

The aim of the study. To determine the quantitative characteristics of limited proteolysis in fibrinoid of the basal plate of the placenta in acute and chronic basal deciduitis on the background of iron deficiency anemia in gravidas by histochemical method in combination with computer microdensitometry.

Material and methods. 113 placentas from parturients at 37 – 40 weeks of gestation were studied. Including, for comparison, the placenta during physiological pregnancy and the observation of iron deficiency anemia in gravidas without inflammation of the manure. Pieces of placenta were fixed for 24 to 48 hours in neutral Lilly-buffered 10% formalin solution, followed by ethanol dehydration and paraffin pouring according to standard procedures. On serial histological sections of 5 μ m thick there was performed histochemical technique using ninhydrinoschiffian reaction to free amino groups of proteins by the method of A. Yasuma and T. Ichikava, which allows to assess the degree of limited proteolysis, resulting in “opening” hidden amino groups of proteins. Digital copies of the image were obtained using a Delta Optical Evolution 100 microscope (planachromatic lenses) and an Olympus SP-550UZ digital camera. The obtained images were analyzed in the computer program ImageJ (1.48, W. Rasband, National Institutes of Health, USA).

Results. The results are presented in Table.

Optical color density (relative to optical density) in fibrinoid of the basal plates of the placenta (histochemical method for free amino groups of proteins by the method of A. Yasuma and T. Ichikava) with a combination of different forms of inflammation of manure and iron deficiency anemia in gravidas $M \pm m$)		
Study Group	Observation of inflammation of the manure	Observation of inflammation of the manure
Basal deciduitis acute (fibrinoid of the basal plate is studied)	0,316 \pm 0,0027 $p_1 < 0,001$ (n=16)	0,320 \pm 0,0031 $p_2 > 0,05$ (n=15)
Basal deciduitis chronic (fibrinoid of the basal plate is studied)	0,326 \pm 0,0034 $p_1 < 0,001$ (n=21)	0,341 \pm 0,0038 $p_2 < 0,001$ (n=20)

Note: p_1 - the probability of the difference between the two means between physiological pregnancy and the study group; p_2 - the probability of the difference between the two means between inflammation of the studied placental plate and inflammation in combination with IDA in gravidas

Observation of physiological pregnancy (n=20) of fibrinoid of basal plate is 0,289 \pm 0,0021 optical color density. Observation of iron deficiency anemia in gravidas without inflammation of the manure (n=21) is 0,310 \pm 0,0024 optical color density ($p < 0,001$).

Conclusions. Iron deficiency anemia in gravidas intensifies the processes of limited proteolysis according to the optical density of histochemical staining for free amino groups of proteins in the fibrinoid of the chorionic and basal plate of the placenta in comparison with physiological pregnancy. In acute and chronic forms of basal deciduitis, on average, quantitative indicators of optic density of histochemical color increase in comparison with physiological pregnancy.

Honchar T.V.

MORPHOGENESIS OF PELVIC JOINTS IN THE PRENATAL PERIOD OF HUMAN ONTOGENESIS

*Mykola Turkevich Department of Human Anatomy
Bukovinian State Medical University*

Introduction. It terms of topographic and anatomical approach to the problems of embryogenesis has done with help of proper morphological methods The research of morphogenesis and dynamics of space-time relationships of pelvic joints during the fetal period of development. Vertebral arches are laid before its vertebral bodies but they exist separately for a long period of time. After the development of pre-cartilage tissue begins in the spine, intervertebral cartilages (future intervertebral discs) appear in the form of thin strips of compacted mesenchyme. They begin to form in the cranial spine of embryos 10.0-13.0 mm parietal-coccygeal length (PCL) and are found along the spinal column.

The aim of the study. Fixate period of formation on level of strips and ligament join that defines in this joint earlier than in others. The small coccygeal vertebrae, which have reached maximum in number already, are also connected by intervertebral cartilages. The connection of