

Міністерство освіти та науки України  
Сумський державний університет  
Медичний інституту



# АКТУАЛЬНІ ПИТАННЯ ТЕОРЕТИЧНОЇ ТА ПРАКТИЧНОЇ МЕДИЦИНИ

Topical Issues of Clinical and Theoretical  
Medicine

**Збірник тез доповідей**  
IV Міжнародної науково-практичної конференції  
Студентів та молодих вчених  
(Суми, 21-22 квітня 2016 року)

**ТОМ 2**

Суми  
Сумський державний університет  
2016

fermentative microorganisms. The results are similar to the trends observed in ORAN of most of Europe.

## **STRUCTURAL AND FUNCTIONAL CONDITION OF LIVER OF CHILDREN WITH ESCHERICHIOSIS INFECTED BY EPSTEIN-BARR VIRUS**

*Olkhovskyy E.S.*

*Scientific head - prof. Kuznetsov S.V.*

*Kharkiv National Medical University, Department of Children Infectious Diseases.*

From year to year the frequency of combined infections increases in pediatrician practice. One of the most common infections are Herpes viral and bacterial intestinal infection, including - Escherichiosis. The course of disease is basically determined by the condition of internal organs, especially - the liver.

Purpose of investigation to study structural and functional condition of the liver in children with Escherichiosis, infected by Epstein-Barr virus (EBV).

The liver ultrasound investigation and liver function test in 64 children 1 mo - 3 years with moderate forms of Escherichiosis were done. Among all patients 25 children with persistent EBV infection have been isolated (co-infection). The parenchymal reaction of liver with increased echogenicity to 10-12 gradation was found in 20 (80%) patients, the signs of hepatosplenitis in 4 patients (16%), liver gate lymphadenitis in 16 patients (64%), mesadenitis in 12 patients (48%) with co-infection. An examination of patients with Escherichiosis (mono-infection) revealed parenchymal reactions of liver only in 10 patients (25,64%) with a slight increase of tissue echogenicity. There was only one case of hepatitis among patients with mono-infection, and no inflammation of the lymph nodes. Comparison of liver function test revealed increase of ALT in 13 children (52%) with co-infection. The level of ALT exceeded the physiological parameters not more than one and a half times. All patients with Escherichiosis without EBV infection have normal rates of the liver test.

Thus Escherichiosis in young children with persistent EBV infection is accompanied by changes of liver structural and functional condition that must be considered at all stages of treatment.

## **EFFECTS OF EXPERIMENTAL HYPOXIA ON IRON BALANCE IN THE BRAIN TISSUE OF RATS**

*Samee Al Musa, Sadid Laith - 5<sup>th</sup> year students*

*Scientific supervisor - associate professor Petrashenko V.O.*

*Summy State University, Department of Pediatrics with Medical Genetics*

Hypoxic-ischemic lesion is one of important problems of neonatology, which is determined by their place in the structure of morbidity, perinatal mortality and a value in the disorders formation. Microelements provide course of important biological reactions and are catalysts of many of them.

Research purpose: to research iron cerebral tissue supply in case of experimental hypoxia with different degrees of complexity.

Microelement supply for iron was studied as well as the lead level of cerebral tissue in experimental hypoxia conditions. Microelement supply was investigated on 44 laboratory rodents on their first and seventh days.

The newborn rats had a high level of iron in their cerebral tissues like  $571,5 \pm 1,5$  mkg/g. Microelement level was rapidly reduced after a week of their born. It might be caused by high usage of tissue iron during oxidative reactions and energy generation processes. In this case the iron level was just  $58,33 \pm 1,09$  mkg/g.

The correlation analysis of contained iron level in animal organs on their first alive day pointed out that the level of element correlation in brain with iron level of other organs is quiet weak ( $r = -0,28$  for the liver) or totally absent ( $r = 0,12$  for the kidneys and  $r = -0,07$  for the heart).