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АКТУАЛЬНІ ПИТАННЯ ТЕОРЕТИЧНОЇ ТА ПРАКТИЧНОЇ МЕДИЦИНИ

Topical Issues of Clinical and Theoretical
Medicine

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effectiveness of a hypoallergenic diet therapy (HD) products based on the full or partial hydrolysis of serum protein in cow's milk (CMP) in infants with symptoms of atopic dermatitis (AD).

Integrated dynamic, within 2 months of observation conducted in 31 infant child that was bottle-fed, had clinical signs of atopic dermatitis. With the use of tables of random numbers were distributed on two clinical comparison group. The first (I) clinical group entered 21 patient, which was designed soft hypoallergenic diet therapy blends "HiPP HA₁ combiotik" and "HiPP HA₂ combiotik" (according to age and severity of manifestations of AD). To the second group (group) included 10 infants who were administered hypoallergenic mix of other manufacturers (optional mother).

Duration of observation was 2 months. On the main clinical characteristics were comparable groups. Following the correction of malnutrition among children in group I mean score on the EASI scale decreased by 2,2 times (from 12,6±2,6 to 5,7±0,9 points (P<0,05)), where as in infants group II - is only 1,6 times (from 3,8±1,1 to 2,3±0,6 score (P<0,05)). In the beginning of the observation points indicated amount was recorded in 85,7% of children in I group and after - only 57,1 % of patients (P<0,05). In II group, the proportion of such patients decreased from 20,0 % to 10,0 % of children (P>0,05). As a result of consistent HD children showed decrease in symptom severity AD 57,1±10,8% of cases, where as patients II group - only 10,0±9,4% of observations (P<0,05). The relative risk reduction EASI score on a scale of 4,4 points or higher in patients of group versus control was 47,1% absolute risk reduction – 52,3% with a minimum number of patients to be treated to obtain one positive result - 2.

Thus the product "HiPP HA₁ combiotic» recommended as a starting formula feeding for children allergic to cow's milk proteins are easy and moderate to anyone under 1 year of age, starting of the first days of life, and for the necessary term to stabilize the clinical effect and subsiding manifestations of atopic dermatitis.

MICROBIOLOGICAL RESEARCH IN NEONATAL ICU (SUMY REGION CHILDREN'S CLINICAL HOSPITAL)

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Newborns with very low and extremely low body weight at birth (VLBW and ELBW) are the most complicated category of patients in a Department of resuscitation and intensive therapy of newborns (ICU).

Objective: to determine of colonization by opportunistic microorganisms and fungi, as well as their sensitivity in newborns in ICU.

Results. In 60%, samples of the cultures material were positive (+). Coagulase-Negative St. (CoNS) (48/100 +); with mucous membranes of neonates most often stood. 58% of CoNS isolates methicillin-resistant were, respectively. Representatives of the Enterobacteriaceae were inoculated with a frequency of 16/100 +: a total of 268 isolates, 15% was resistant to Cephalosporin I–IV generation, and 0.7 % r to Carbapenem. The trend of decrease in the isolation rate of non-fermentative gram-negative rods up to 2.5/100 + noted. They were represented only by two species of *Pseudomonas aeruginosa* and *Acinetobacter* spp. and had a wide spectrum of antimicrobial sensitivity. 618 samples of blood cultures from 453 children were studied, of whom 6% +. Fungi represented by 3 genera: *Candida*, *Malassezia* and *Saccharomyces*. The most frequently inoculated *Candida* – 1.4% and *Malassezia* – 1%. 70% from fungi - *Candida albicans* sensitive to fluconazole.

Conclusion. 1. Microbiological monitoring enables to monitor the stages and features of the CPM colonization of the newborns in the hospital. Individual approaches to each patient undergoing treatment in ICU, conducting flexible antibioticotherapy reduce the use of antimicrobials reserve and to reduce the frequency of colonization in children fungal flora.

2. On the background of reducing the frequency of use of antibiotics of a reserve in dynamics is clearly a trend towards reducing the frequency of colonization of newborns no

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

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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

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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).