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Topical Issues of Clinical and Theoretical Medicine

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When there is light hypoxia stage in animal organism the iron content in brain is reducing twice. In case of complicated hypoxia its content reduced for 36,64% ($p \leq 0,05$). Thus animals, which were one-week old, had the same level of element in comparison to monitored animal group and it was 50,00±0,65 mkg/g for light hypoxia and 47,67±0,81 mkg/g for complicated hypoxia. During hypoxia against iron fall-off may be formed positive element content correlation between brain and liver (r=0,54) and brain and heart (r=0,49) and strong negative correlations between its level in brain and kidneys (r= -0,84).

In newborns' organisms mild-power converse correlations are formed between element level in brain and kidneys (r= -0,58) in case of complicated hypoxia stage.

So, brain tissue of neonatal rats is characterized by high intensity and great dynamism of iron. By the end of the first week of life the content of these minerals decreases in 1.5 - 10 times.

OUTCOMES OF BRAIN DAMAGE IN TERM NEONATES WITH SEVERE HYPOXIC ISCHEMIC ENCEPHALOPATHY

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Study is to describe clinical and neuroimaging data of term newborns admitted to neonatal NICU, who presented clinical-neurological alterations and encephalomalacic lesions whose presence was documented by ultrasonography or pathologic-anatomical conclusions. Stationary cards 18 full-term infants who were treat in NICU studied. In all infants a selective neuronal necrosis and diffuse necrosis of neurons, Subcortical Leukomalacia were diagnoses.

Uncomplicated spontaneous vaginal delivery was in 33.3%; 11.1% were delivered with forceps and vacuum extraction; 44.4% infants born CS & 87.5% were emergency CS. Apgar sc. at 5 min < 4 had 94.4%. All infants received initial resuscitation. Artificial lung ventilation was first conducted to all newborns in the delivery room. Respiratory insufficiency III, irregularities of heart rate and blood pressure were present in all infants. Signs of multiorgan failure manifested in all newborns. Cramps - 18 infants. During the first 7-10 hours of life convulsions appeared in 50%. Fontanelles were bulged, suggesting increasing cerebral edema. All infants received treatment with according to protocol and symptomatic therapy. Currently remain the alive 16.7% All three surviving children have a deep neurological deficit - in one spastic quadriplegia. 15 infants - 83.3% died. Noteworthy: 8 infants born by CS, died 7. The diagnosis of Subcortical Leukomalacia been confirmed for all infants resulting mortem studies.

Conclusions. I. We have reason to suspect that in studied by us cases, emergency CS were carried late. In cases of fetal distress is very important time to produce CS. II. Numerous studies show that H-I cerebral damage develops in two phases: the first dominated by necrotic processes in the ischemic areas and the second dominated by apoptotic processes extending beyond ischemic areas. Therapeutic hypothermia has been indicated for asphyxiated full-term newborn infants according multicenter randomized controlled studies. The method of therapeutic hypothermia in newborns is necessary to implement in Ukraine asap.

THE INFLUENCE OF ATOPIC DERMATITIS ON THE QUALITY OF LIFE OF CHILDREN

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The aim: to analyze psychosocial aspects based on a comprehensive assessment of determine the quality of life parameters in families where a child suffers from atopic dermatitis

Materials and Methods. The study involved 62 families in which a child suffers from atopic dermatitis. The diagnosis of AD is installed in accordance of the classification and diagnostic criteria, according to the Protocol of diagnosis and treatment of atopic dermatitis in children №767 Ministry of Health of Ukraine. The age of surveyed children were from 3 to 11 years. The

dermatological life quality index - DLQI (Dermatology Life Quality Index-DLQI) can be used in clinical practice an example of a simple questionnaire for practical everyday. Each survey question involves one of the four possible answers: "no", "little", "moderate", "very much", were scored 0, 1, 2, 3, respectively. The answer "irrelevant" is valued at 0 points. DQLI is the sum of all points. The maximum score (30) corresponds to the heaviest defeat of the quality of life. DQLI can be expressed as a percentage of the maximum possible number of points.

Results and discussion. The study involved 62 children, including 30 girls, 32 boys. The distribution of children by age showed a significant prevalence of children's age from 6 to 10 years, the length of illness was at least 2 years old at the time of the study, patients were in remission. The analysis of the results of questioning was found that the summary measure of quality of life was 13.5 points in children with atopic dermatitis in remission. The following results were obtained by the subjective evaluation of the degree of atopic dermatitis affecting on the quality of children's life : the disease is "very strong" impact on quality of life - 9,1 ± 2,5%, «significant" effect - 68,7 ± 4,2%, « negligible "impact - 11,0 ± 5,2%,« does not affect »- 11,3 ± 6,4%.

Conclusion. Due to the high significance of psychosocial factors it is a necessary assessment of psycho-emotional and social development conditions, not only of small patients but also in their parents in the complex of diagnostic and treatment and rehabilitation measures.

THE EFFECT OF HYPOXIA ON LEAD TISSUE CONCENTRATION IN NEWBORN RATS

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Hypoxic-ischemic lesions is one of important problems of neonatology, which is determined by the 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. Micronutrient disbalance is one of the mechanisms of damage of membranes. The role of microelements in metabolic adaptation of newborns on the back ground of hypoxia is staying unknown. Providing vital organs, such as cerebrum, heart, liver and kidneys, with microelements in the case of hypoxia is uninvestigated too. Here with, the role of toxic microelements, namely lead, is not determined. The present objective was to research toxic lead dynamics in vital organs tissues (brain, heart, liver, kidneys) of newborn rats in the case of experimental hypoxia of various severity degrees. All rats were randomly divided in two groups. The first group (12 rats) was control. Hipobaric model of hypoxia was used in second experimental group (48 rats). The content of toxic lead is the largest in brain and al most twice increases in liver, heart and kidneys. The level of lead is stable during the first week of life in liver and heart, but its content in kidneys increases in three times as much as decrease in brain tissues of rats. Effect of moderate hypoxia leads to increase of accumulation of lead in heart and kidneys – in 8 times, in liver– in 3 times and in brain(28,2%, $p < 0,05$). In case of severe hypoxia we can see a decrease of lead content in liver, but in other organs its content is much higher than results of control group and animals, affected by moderate hypoxia. Accumulation of lead is accompanied by formation of correlations of medium strengthin kidneys and liver($r = 0,43$) under conditions of moderate hypoxia and the strong connection- in case of severe hypoxic injury($r = 0,76$). A significant power relationshipis formed about the element contentin heart and kidneys both in the case of light($r = 0,92$), and severe ($r = 0,81$) hypoxia.