

**CHANGES OF DYNAMICS OF SOME BIOCHEMICAL MARKERS OF OXIDATIVE STRESS ON 1ST AND 5TH DAY OF LIFE IN A CASE OF ASPHYCTIC NEWBORNS**

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Oxidative stress is characterized by the dysbalance between the origin of free radicals and the activity of antioxidant protective systems. The influence of free radicals and their reactive metabolites plays an important role in the pathogenesis of „free radicals diseases“, to those belongs also asphyxia of newborns.

**Objective:** In a case of asphyctic newborns to determine the influence of oxidative stress on dynamics of the activity of some liver enzymes, malondialdehyde (MDA) as well as to determine the index of DeRitis.

**Patients and methods:** The series consisted of 38 preterm a term asphyctic newborns, who were admitted to 1st Department of Paediatrics. In both groups were investigated aspartateaminotransferase (AST), alanineaminotransferase (ALT), malondialdehyde (MDA) and the index of DeRitis.

**Results:** In a case of preterm asphyctic newborns on a 5th day of life in 85 % we found a decrease of index DeRitis unlike of the values of MDA, which were elevated in 74 %. In a group of term newborns on the 5th day of life the decrease of index DeRitis was in 90 % and an elevation of MDA in 45 %.

**Conclusion:** Authors found from the values of selected liver parameters and MDA that a normal values of liver enzymes on the 5th day of life are not a sensitive markers of oxidative stress in a newborn organism unlike of changes of dynamics of MDA, which confirmed the presence of active lipoperoxidation in newborn organism.

