IRON PROVISION IN BLOOD SERUM OF NEWBORNS WITH DIFFERENT TYPES OF INTRAUTERINE GROWTH RETARDATION DURING NEONATAL PERIOD

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Intense metabolism in newborns with intrauterine growth retardation (IUGR) requires a sufficient and regular receipt of micronutrients. The value of microelement homeostasis and its role in the formation of an imbalance of pathological conditions of these category children studied enough. They probably vary depending on the gestational age of the child, weight at birth and IUGR type.

Aim: To examine the iron content in blood serum depends on the type of IUGR. The study involved 80 children, divided into 3 groups: I - 30 children with hypotrophic variant of IUGR, II - 30 children with hypoplastic variant, III - 20 children who had dysplastic variant of IUGR. Comparison group contained 30 healthy newborns (HNB). The content of Iron was defined by the method of atomic absorbed spectrophotometry.

It was found that at 5-9 days of life the content of iron in the serum of children with all types of IUGR was statistically lower than that in healthy newborns. At the end of 2nd week of life, the amount of serum iron increased significantly in all groups of newborns with IUGR. At this time iron levels recovered in children with hypotrophic type of IUGR and corresponded to concentration of healthy newborns. In hypoplastic and dysplastic types the iron concentration was still significantly lower.

On the 20-30 day children with hypotrophic and hypoplastic types of IUGR reached the limit of physiological levels of iron in the blood serum, only children with dysplastic type remained with low concentration of blood serum.Thus, the most rapidly recover of iron serum content is typical for children with hypotrophic type of IUGR. By the end of the 1st month of life serum iron at newborns of both groups (hypotrophic and hypoplastic) was same than level of healthy newborns. Dysplastic type of IUGR is characterized by low saving of serum iron content during the neonatal period. In the future it may provoke sideropenic violation and the development of iron deficiency anemia.