Iron-deficiency states of early-born children

Vasilyeva Tatiana Mikhailovna1,2, Zakharova I N1, Sugyan N G1,2 and Lazareva S I2
1Russian Medical Academy of Continuous Professional Education, Russia
2State Budgetary Health Care Institution-Children’s Polyclinic, Russia

Purpose: To draw attention to the problem of IDA in children with insufficient iron reserves due to premature birth.

Materials & Methods: A retrospective analysis of ambulatory medical record of 100 children born before 38 weeks of gestation, 48% of girls and 52% of boys with obstetric history of mothers, early and late neonatal period, red blood counts (Hb, RBC and erythrocyte indices MCH, MCV, RDW).

Results: The mother’s age was from 30 to 49 years were 60%, from 19 to 29 years of age were 39% and up to 19 years of age were 1%. The first pregnancy was in 36% of cases, the second in 28%. In 29% of cases, pregnancy was multifetal. Births in 58% are the first pregnancy ones and in 34% the second. 7% of women were observed with iron deficiency anemia. In 46% of cases, delivery was by cesarean section. 47% of children with iron deficiency were born before 34 weeks of pregnancy. Body weight at birth ranged from 1300 to 2700 grams. 37% of children had the body weight less than 2 kg. Artificial or mixed feeding began with the first and second month of life in 48% of cases. 60% of newborns had hypoxic-ischemic brain damage, 61% prematurity, 42% hypotrophy and 21% iron deficiency. Control for iron deficiency was in 8% of children. Based on the results of the studies, the average values were Hb 104±6 g/l, RBC 3.5±0.5 1012 L, MCV 73±6 fl, MCH 21±5 pg, RDW 15.8±3%. MCV values less than 73 fl were detected in only 5% of children, a decreased MCH was found in 58% of children, more often in the second half of the year of life, an increase of RDW in 37% of children.

Conclusion: One of the risk factors for the development of IDA is the gestational age.

Biography

Vasilyeva Tatiana Mikhailovna is currently a Postgraduate student of the Department of Pediatrics in Russian Medical Academy of Continuous Professional Education, Russia and also works as a Pediatrician in a Pediatric Outpatient Clinic.

bytchenko@continent.ru