P1892 - NEONATAL ARRHYTHMIAS AND INDEXES OF HEART RATE VARIABILITY IN NEWBORNS

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Aim: to compare the frequency of occurrence and variants of cardiac arrhythmia in full-term and preterm newborns.

Methods: analysis the data of anamnesis, Holter monitoring ECG (Holter ECG), Doppler echocardiography, statistical analysis.

Results: In 79 infants had irregular heart rhythm. The 1st group was included prematurely born children 55 (69.6%), the 2nd group - full-term newborns (24 - of 30.4%). Hypoxic-ischemic CNS damage moderate, and severe degrees of gravity was found in 29 (52.7 %) of the 1st group and in four children (29.2 %) the 2nd group ($t=3.13$, $p<0.05$). Central hemodynamics according to Doppler echocardiography showed the presence of hyperkinetic and hypokinetic types of hemodynamics in almost equal shares (45.8% and 41.7%, respectively) in a group of full-term infants. Significant differences between the groups was observed in patients with normokinetic type of hemodynamics ($t=5.5$, $p<0.05$). According to the results of Holter ECG among cardiac arrhythmias have been identified in both groups: atrial extrasystoles – 40.5%, ventricular extrasystoles – 13.9%, episodes of transient AV-block of 1st degree – 10.1%, long QT – 10.1%. No significant differences were between groups in the frequency of occurrence of AV-block of 2nd degree type Mobitz 1 in 4 preterm babies ($7.3\pm2.2\%$, $t=3.13$, $p<0.05$). Processing of the obtained statistical indices of heart rate variability non-parametric methods have revealed a reliable decrease in SDNN in the group of premature born children ($p<0.05$). SDNN displays the decrease of the total effect of autonomous regulation of circulation that is associated with the strengthening the regulation of cute, depressing the activity of the autonomous circuit.

Conclusions: A rhythm disorder of the heart in preterm babies was connected to the influence of hypoxic lesions of the CNS in the regulation of cardiac activity largely and to the complexity of the flow adaptation processes.