

Introduction

Today, there is a tendency to spread of diseases caused by herpesvirus, including an increase of infectious mononucleosis (IM) morbidity. In view of the aforesaid, the study of modern features of clinical course of IM attracts considerable interest.

Aim of research - to identify clinical features of liver affection in children with infectious mononucleosis.

Material and methods

Case histories of 42 children aged 4 to 15 years old with a diagnosis of chronic hepatitis were analyzed. All patients underwent general clinical laboratory examinations and biochemical blood tests (to determine the activity of alanine aminotransferase (ALT) and aspartate aminotransferase (AST) levels of total bilirubin and its fractions, alkaline phosphatase (ALP), gamma-glutamyl (GGT)), determination of markers of viral hepatitis and ultrasound (US) investigation of internal organs were also made. The IEA with determination of blood markers of EBV (IgM VCA, IgG EA, IgG VCA, avidity) and CMV (IgM, IgG, avidity); defined EBV, DNA, CMV, DNA, PCR were used for serological diagnosis. Depending on the etiology of the disease patients were divided into 3 groups: Group 1 - patients with IM of EBV-etiology (17 patients), group 2 - patients with MI of CMV etiology (16 patients) Group 3 - mixed -IM of EBV + CMV etiology (9 patients). Received digital data were processed with methods of statistical analysis in application «Statistica-6" (using parametric Student t-test and nonparametric, including Spearman's rank correlation method, rank analysis of variance and Kendall's coefficient of concordance, calculation of Kruskal — Wallis criteria).

Results

Medical history revealed that in 85.7% of cases MI had usual course and medium severity. In 66.7% of patients the disease started with fever and acute onset of symptoms of intoxication. In 33.3% of cases there was a gradual onset of prodromal symptoms. Enlargement of the lymph nodes was noted in 98.6% of patients, tonsillitis throat (lacunar angina type) - in 54.7%, hepatomegaly - in 71.4%, splenomegaly - in 38.1%, nasal breathing difficulty - in 52.3%. *Only in a few cases*, puffiness (21.4%), rash (14.2%), aphthous stomatitis (9.5%) were observed. The most distinctive changes in the hemogram of MI: leukocytosis (64.2%) and atypical mononuclear cells (73.5%). Hepatosplenomegaly occurred significantly more often (93.3%) and was well defined in patients of with early age (under 7 years old) with typical lymphadenopathy. 15 children (35.7%) on the stage of admission to the hospital (on $11,0 \pm 1,3$ day from the

beginning of the disease) had transaminase increase. Jaundice forms of hepatitis with little increase of bilirubin were observed in five patients with hepatomegaly (16.6%). In 28 patients (93.3%) with signs of hepatitis (n = 30) atypical mononuclear cells revealed; level of atypical mononuclear cells in the blood above 20% was observed in 13 out of 30 patients with hepatitis (43.3%). Ultrasound investigation showed diffuse increase in echogenicity of the liver in 36.6% of patients, single infiltrations along the hepatic vessels were determined in 10.1% of cases, increased vascular pattern of liver - in 16.6%, waist of the gallbladder - 20%, thickening of the walls of gall bladder - to 13.3%, increased echogenicity of the pancreatic parenchyma - the 13.3% increased echogenicity of spleen - 20% of children.

Between IM etiology and the development of hepatitis there is a correlation of a medium strength ($r_s = 0,6 \pm 0,07$); between the etiology of the disease and the level of ALT - medium strength correlation ($r_s = 0,5 \pm 0,06$); in both cases, the risk of hepatitis B increases in case of mixed - MI (EBV + CMV). It was figured out, that between age and the development of hepatitis in case of IM, and also between age and levels of transaminase activity the average correlation ($r_s = 0,4 \pm 0,07$) is observed. High correlation is established between patient sex (female) and signs of hepatitis ($r_s = 0,8 \pm 0,07$).

The first three signs (tonsillitis, lymphadenopathy, pyrexia) on average ranks (from 6,42 to 6,79) are maximal close, and the average coefficient of concordance reaches 0,917-0,985. The second group of symptoms (hepatomegaly, splenomegaly, nasal breathing difficulty) includes fluctuations in the average rank from 4.6 to 6.0 with a coefficient of concordance from 0.513 to 0.811. The third group of signs (puffiness, rash, aphthous stomatitis) appeared less significant both in terms of average rank (2,759-3,337) and the Kendall coefficient of concordance (0,089-0,217).

Conclusions.

Hepatitis with MI was observed in more than half of patients, its development and severity correlated with etiological features of the disease (mixed infection EBV + CMV, $r_s = 0,6 \pm 0,07$); age ($r_s = 0,4 \pm 0,07$), sex ($r_s = 0,8 \pm 0,07$). 2. Hepatitis with MI background is characterized by significant prevalence of anicteric forms of moderate and transitory increase of transaminases, accompanied by splenomegaly and abnormal levels of mononuclear cells in blood above 20%.