LIVER INVOLVEMENT IN CHILDREN WITH DENGUE INFECTION

Abstrak :

Liver is not the major target organ of dengue virus, otherwise hepatic dysfunction has been reported in adult patient with dengue infection. Only a few cases of liver involvement in children with dengue infection have been explored. This study was to investigate manifestations of liver involvement in children with dengue infection. This was a case-control study was conducted at dr. Soetomo Hospital from March 2008 to April 2009. Subjects were children who suffered from dengue virus infection due to clinical diagnosis based on WHO criteria. Data was taken from medical record. Variables analyzed consisted of age, sex, clinical manifestations including hepatomegaly, jaundice, hepatic encephalopathy, and circulatory failure; laboratory findings including serum aspartate aminotransferase (AST) and alanine aminotransferase (ALT). The data was analyzed using chi-square and t-test with 95% confidence interval. We found that from 72 patients, 34 patients had hepatomegaly, 4 patients had hepatic encephalopathy, and 52 patients with elevated serum transaminases level. There were significant differences in elevated AST level (mean difference 28.5 [9.4 to 47.5], p 0.004) and hepatomegaly (proportion difference 0.3 [0.1 to 0.5], p 0.018) related to the severity. Elevated ALT level &gt;3 fold (PR 4.1, 1.4-11.9, p 0.008) and hepatomegaly (PR 3.5, 1.2-10.1, p 0.018) associated with circulatory failure. In conclusion, manifestations of liver involvement in children with dengue infection in this study were hepatomegaly, elevated serum transaminases level, and hepatic encephalopathy. Elevated ALT level &gt;3 fold and hepatomegaly associated with circulatory failure.

Keyword :

children, dengue infection, liver involvement

Daftar Pustaka :

Kumar R, Tripathi P. Prevalence of dengue infection in north Indian children with acute hepatic failure Ann of Hepatology 2008 -
Fadilah S, Abdul S, Sanusi S A comparison of the pattern of liver involvement in dengue hemorrhagic fever with classic dengue fever Southeast Asian J Trop Med Pub Health 2000 -
Gulati S, Maheshwari A. Atypical manifestations of dengue Trop Med Int Health 2007 -
Itha S, Kashya R Profile of liver involvement in dengue virus infection Natl Med J India 2005 -
Dhooria G Clinical profile and outcome in children of dengue hemorrhagic fever in north india Iran J Pedatr 2008 -