Severity Assessment of Chronic Liver Disease in Children

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Introduction:

Chronic liver disease and cirrhosis are the most important causes of growth failure, morbidity and mortality in children. Cirrhosis consists of a variety of congenital, genetic, metabolic, and infectious causes in children. Models for predicting of chronic liver disease severity, survival, and transplantation are useful for decision-making as well as medical interventions. The most important application of this model is to estimate the true mortality rate at a specific time. Therefore, it helps the correct selection of patients for liver transplantation. In this study, we examined the relationship between disease severity and pediatric end-stage liver disease (PELD) scoring system in children with chronic liver diseases.

Materials and Methods:

This cross–sectional study conducted on 106 children with chronic liver diseases from 2011 to 2012 admitted to Ghaem Hospital, Mashhad, Iran. We used the clinical files of the patients to determine PELD score and recorded all information on a special form. Following that, PELD/MELD (model for end-stage liver disease) scores were calculated. SPSS software version 18 was performed for the analysis of the data applying independent t-test.

Results:

A total of 106 patients, 53% females and 47% males with the mean age of 68.3 ± 41.8 months participated. The most common clinical finding was hepatomegaly (76%), followed by jaundice and splenomegaly. Jaundice, hepatopulmonary syndrome, cirrhosis and splenomegaly were clearly correlated with PELD score. The increasing of PELD/MELD (model for end-stage liver disease) scores were in line with the high level of liver alkaline phosphatase enzyme and there was a significant relation between them ($P<0.05$).

Conclusion:

In our study, all the results showed that the scoring system had the reasonable efficiency in the prognosis and morbidity of chronic liver diseases in children, which has been demonstrated in previous studies.

Keywords: Chronic liver disease, MELD score, PELD score.

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