

The clinical features and outcomes of acute liver failure associated with dengue infection in adults: a case series.

Soek-Siam Tan^a, Mohamad Adam Bujang^b

^a Department of Hepatology, Selayang Hospital, Lebuhraya Selayang-Kepong, Batu Caves, Selangor, Malaysia

^b Biostatistics Unit, Clinical Research Centre, Ministry of Health, Kuala Lumpur, Malaysia

Abstract

Objective

To describe the clinical manifestations and outcome of acute liver failure (ALF) associated with dengue viral infection, a rare but severe complication.

Methods

One hundred and fifty five consecutive patients with ALF admitted to the national liver centre from 2001 to 2009 were reviewed retrospectively. Eight cases due to dengue infection were identified and their clinical characteristics are described.

Results

All patients had severe dengue with one dengue shock syndrome. The median (minimum, maximum) age was 33.5 (17, 47) years with 50% female. The median (minimum, maximum) duration from the onset of fever to development of ALF was 7.5 (5, 13) days and the maximum hepatic encephalopathy (HE) grade were III in five patients and II in three patients. Three patients had systemic inflammatory responses (SIRS) on admission and were in grade III HE. The presence of SIRS on admission was associated with higher grade of HE and its development during the course of hospitalization was associated with worsening HE grade. The hepatitis was characterized by marked elevations in: alanine transaminase [median admission 1140.5 u/L (639, 4161); median peak 2487 u/L (998, 5181)], serum bilirubin [median admission 29 µmol/L (23, 291); median peak 127 µmol/L (72, 592)], and prothrombin time [median admission 16.8 s (15.3, 26.2); median peak 22 s (15.3, 40.7)]. The survival rate with standard medical therapy alone was 100%.

Conclusions

Dengue associated ALF manifest about one week after the onset of fever with severe hepatitis and encephalopathy. In our experience, the outcome with standard medical therapy alone is excellent.