

Association of severity of hepatitis E virus infection in the mother and vertically transmitted infection in the fetus.

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Association of severity of hepatitis E virus infection in the mother and vertically transmitted infection in the fetus.

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Abstract

Background: Hepatitis E virus infection is vertically transmitted from mother to the foetus, often leading to severe foetal and neonatal disease. The relationship between severity of disease in the mother and foetus is not known. We studied clinical and biochemical characteristics of 36 consecutive pregnant women with acute HEV infection. Babies born to these women were assessed for vertically transmitted HEV infection and the severity of liver disease in the newborn. The severity of disease in the newborn was correlated with the maternal disease. Of the 36 pregnant women with HEV infection, 20 (55.6%) had nonfulminant disease and 16 (44.4%) had fulminant hepatic failure (FHF). Nine (56.3%) of the 16 mothers with FHF had disseminated intravascular coagulation. Six (37.5%) women with FHF survived and 10 (62.5%) died. Twenty-five (69.4%) infants had HEV infection at birth. Fourteen (56%) of such infants died with a clinical syndrome resembling FHF. Babies born to mothers with FHF were more often HEV infected and viremic ((15/16; 93.8% for both) than those with nonfulminant disease (10/20; 50% and 5/20; 25%) ($p=0.004$ and <0.001 respectively). Twelve (75%) of the 16 babies borne to mothers with FHF had clinical syndrome of FHF because of massive hepatic necrosis. In contrast only two (10%) of the 20 mothers with nonfulminant disease delivered babies who developed FHF ($p=0.008$) All the six mothers who survived had delivered babies within 4 days (2.3 ± 1.0 days) of onset of encephalopathy. In contrast, all the 10 mothers who died had delivered babies 4 days (9.6 ± 3.0 days) after onset of encephalopathy ($p=0.02$). The severity of hepatitis E virus infection in the mother and the fetus is related to each other and needs further studies to define cause and effect relationship.

References

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