

Antibodies to Hepatitis C Virus (Anti-HCV) in Children

A few studies of hepatitis C virus (HCV) have so far been reported in children(1-3). Anti-HCV screening in children with hepatic cirrhosis including that of Indian Childhood Cirrhosis (ICC) has not been reported. We screened sera of 27 children in the age of 9 months to 15 years for antibodies to HCV using HCB EIA (Commercial kit from Abott Diagnostic Division, U.S.A.). The patient material constituted 10 cases of acute viral hepatitis, 3 chronic active hepatitis (CAH), 11 cirrhosis and 3 extrahepatic portal vein obstruction (EHPVO)-multitransfused. Out of 8 cases of acute NANB hepatitis (post-transfusion 1 and sporadic 7), 3 were anti-HCV positive (*Table*). Fulminant hepatic failure (FHF) was the presentation in one of the two cases of acute viral hepatitis B and this case was anti-HCV positive. All the cases of CAH who were of NANB

sporadic form were negative for anti-HCV. Out of 11 cirrhotics, 8 were due to ICC, one case each due to Wilson's disease, HB virus and cryptogenic etiology. In this group, none other than the patient with Wilson's disease was anti-HCV positive. This child had features of hepatic decompensation at presentation. Three patients of EHPVO had received multiple blood transfusions in the past. None of these had clinical or biochemical evidence of acute or chronic hepatitis. Among them HBV carrier state was detected in one case and anti-HCV positivity in the other. Viral markers were negative in the third case. Anti-HCV positivity of 6/27 (22.2%) children screened, indicates the existence of HCV in children. Transfusion related HCV was found in 2 children. One of these had acute hepatitis while the second child did not have overt hepatitis. The positivity of anti-HCV in 2/7 cases of acute NANB hepatitis (sporadic) indicates the presence of HCV infection. Similar observations have been reported earlier(3). The child of

TABLE—Patient Characteristics of 6 Children with Anti-HCV Positivity

Case number	Age (Years)	Sex (Male/Female)	History of preceding blood transfusion	Diagnosis
1.	12	F	Yes	Acute NANBH (Post-transfusion)
2.	5	M	No	Acute NANBH (Sporadic)
3.	7	F	No	Acute NANBH (Sporadic)
4.	13	M	No	FHF (Hepatitis B)
5.	7	F	No	Hepatic cirrhosis (Wilson's disease)
6.	8.5	M	Yes	Extrahepatic portal vein obstruction

HBV-FHF (anti-delta virus negative and anti-HCV positive) possibly had co-infection or super-infection of HCV over HBV which might have contributed to the development of FHF. This fact has been postulated in one adult study(4). Acute hepatic decompensation of cirrhosis in child with Wilson's disease observed by us could also be possibly due to superimposed HCV infection. Negativity of anti-HCV in ICC patients probably excludes the role of HCV in the disorder. Since our report is preliminary, further studies of HCV are required to be carried out in children.

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