

ANTI-HCV PREVALENCE IN ICTERIC CASES İkterik olgularda anti-HCV prevalansı

Bilgehan Aygen¹, Mehmet Doğanay², Cengiz Utaş³

Parenterally transmitted non-A, non-B hepatitis is caused by a small, single stranded RNA virus that has been named the hepatitis C virus (1,2). Hepatitis C is a common disease that accounts for more than 90 percent of the cases of hepatitis that develop after transfusion (3, 4). Chronic hepatitis develops in at least half of the patients with acute hepatitis C, and cirrhosis develops in at least 20 percent of this group (2,3). In addition, the virus may be causally associated with hepatocellular carcinoma (5,6). The aim of this study was to investigate the seropositivity against hepatitis C virus in icteric cases.

PATIENTS AND METHODS

One hundred, and thirty one patients with icterus were evaluated prospectively in the Infectious Diseases Clinic, Erciyes University, between 1990 and 1993. The clinical and laboratory findings of the patients were recorded. Liver function tests and markers for hepatitis B (HBsAg, HBeAg, anti-HBc IgG, anti-HBc IgM, anti-HBe, anti-HBs), for hepatitis A (anti-HAV IgM) and for hepatitis D (anti-HDV IgG and IgM) were carried out in all patients. Liver biopsy was performed in the patients which had chronic liver disease.

Blood samples were collected from all patients and serum was stored at -20°C until the study day. The test of anti-HCV was performed with micro-

ELISA using commercial kit (Ortho Dignostics, recombinant C 100-3).

RESULTS

Eighty-two patients of 131 cases with icterus were diagnosed as acute viral hepatitis (12 acute hepatitis A, 66 acute hepatitis B, one acute hepatitis C and three acute hepatitis which was undetermined etiology). Twenty-three cases were diagnosed as chronic hepatitis (11 chronic B hepatitis, nine chronic C hepatitis and three chronic D hepatitis) and five cases as according to their diagnosis shown on table I.

Anti-HCV was positive in 11 of 131 (8.3 %) cases, one was diagnosed as acute hepatitis C, nine chronic hepatitis C and one cholangiocarcinoma. Some characteristics of anti-HCV positive cases are summarized in table 2. Six of 11 cases had a history of transfusion and nine cases had a surgical intervention before.

DISCUSSION

Development of an assay for circulating HCV antibody has now enabled the determination of the seroprevalence of this antibody (7). The utility of anti-HCV screening has been well demonstrated in studies of transfusion-associated hepatitis (8). This study shows that hepatitis C virus infection rarely involves the cases with icterus due to acute hepatitis. In our country, anti-HCV positivity among different risk groups is as follows: 18.6 - 32.4% in hemodialysis patients, 0.3 - 1.8% in blood donors (9-11), 23 - 36.8% in patients with chronic viral hepatitis and cirrhosis (10-11) and 0.0-8.3% in

Erciyes University Medical Faculty 38039 KAYSERİ
Infectious Diseases. Ass. Prof.¹, Prof.². Internal Medicine.
Ass.Prof.³.

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hospital staff (9-11). One of 82 (1.2 %) patients with acute hepatitis was diagnosed as acute hepatitis C and 9 of 28 (32.1 %) patients with chronic hepatitis or cirrhosis were also diagnosed as chronic hepatitis C in our study. About one half of the patients with acute hepatitis C advance to chronic hepatitis and, among those biopsied, chronic active hepatitis will be detected in almost 50% and cirrhosis in nearly 20%. Some individuals with cirrhosis will advance to hepatocellular carcinoma (8).

Transfusion and/or surgical intervention were present in the history of 11 cases with hepatitis C infection in our study. Hepatitis C accounts for a substantial proportion of hepatitis cases among patients with frequent parenteral exposure to blood and blood products (eg, haemophiliacs, intravenous drug abusers, and haemodialysis patients) (4). Results of this study have shown that the prevalence of acute hepatitis C in our region is rather low. This may be due to the low frequency of surgical interventions needing large quantities of blood transfusion in our hospital.

Table I. Distribution of the cases

Diagnosis	No	%
Acute Viral Hepatitis		
Acute hepatitis A	12	9.2
Acute hepatitis B	66	50.4
Acute hepatitis C	1	0.8
Acute hepatitis*	3	2.3
Chronic Viral Hepatitis		
Chronic hepatitis B	11	8.4
Chronic hepatitis C	9	6.9
Chronic hepatitis D	3	2.3
Cirrhosis**	5	3.9
Hepatic Coma**	5	3.8
Others****	16	12.2

* Etiology was not identified

** 3 were associated with alcoholic liver disease. 2 were associated with chronic hepatitis B

*** 3 were associated with acute hepatitis B, in two cases etiology was not identified

**** 5 sepsis. 3 Ca. 3 choledocholithiasis. 1 liver abscess, 2 toxic hepatitis. 1 pancreatic cyst, 1 Gilbert's syndrom

Table II. Some characteristics of anti-HCV positive patients

Features	Patient no										
	1	2	3	4	5	6	7	8	9	10	11
Age/Sex	35/F	46/F	30/F	37/F	41/F	53/F	32/F	61/M	48/M	65/F	35/F
Diagnosis	AHC	CHC	CHC	CHC	CHC	CHC	CHC	CHC	CHC	CHC	Ca*
Duration of illness	5d	10m	1y	2y	1y	2y	8m	10d	1m	10d	5m
Source of infection											
Transfusion	+	+	+	+	-	+	-	-	-	+	-
Surgical intervention	-	+	+	+	+	+	+	+	+	-	+
Transaminase level											
ALT (U/L)	1169	162	99	102	50	155	42	108	90	72	100
AST (U/L)	722	124	34	229	53	114	38	90	229	75	48
Histopathology	ND	CAH	CAH	CAH	CAH	CHA	CHA	CHA	CHA	CHAA	Adeno Ca

* Biliary cancer

CHC : Chronic hepatitis C

CAH : Chronic active hepatitis

AHC : Acute hepatitis C

ND : Not done

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