Letter to the Editor

Hepatitis B and C virus infection in patients with high serum transaminases

Sir,

Patients presenting to their family practitioner with elevated transaminases consist a frequent problem in primary healthcare. In a study from Australia in blood donors with elevated transaminases, anti-hepatitis C virus (HCV) prevalence ranged from 8% to 24% according to elevation of alanine transaminase.¹ The aim of the present study was to define HCV prevalence in relation to hepatitis B virus (HBV) in patients with elevated alanine transaminase/aspartate transaminase levels.

The study was performed by the Hepatitis Study Group of the Greek Association of General Practitioners (Attica Branch) in co-operation with the First Medical Department of the County General Hospital of

Western Attica. A total of 107 patients (71 males, 36 females) attending primary healthcare physicians were studied. The mean age $\pm$ sd was 41.3 ± 16.7 (range 22–72) years and their mean alanine transaminase value was 131 ± 67.8 IU/l. HCV antibody was detected by third generation enzyme-linked immunosorbent assay (ELISA; Abbott Labs, Chicago) and the positive results were confirmed by recombinant immunoblot assay (RIBA III, Ortho Diagnostics). The determination of HCV-RNA was done by polymerase chain reaction, as well as by genotype analysis (INNOLIPA, Innogenetics). Hepatitis B surface antigen (HbsAg) was detected using ELISA. The determination of HBV-DNA was performed by branch-DNA (Chiron).

HbsAg was found in 8/107 patients (7.4%), all HBV-DNA positive (mean HBV-DNA value=198 pg/ml). HCV prevalence was 7/107 (6.5%) all of them HCV-RNA positive

(mean HCV-RNA value= 1.5×10^6 Kb/ml). Histological diagnosis was established in all HBV-DNA and HCV-RNA positive patients and the findings are shown in the table.

The present study shows that HbsAg and anti-HCV prevalence is significantly increased in patients with elevated transaminases. For HBV the observed prevalence was similar to that reported in the total Greek population (2–7%), although in recent years a considerable reduction in the HbsAg carrier rate (~1%) has been observed in the general population.^{2,3} Anti-HCV prevalence was higher than the one found in groups at high-risk for hepatitis C. Similar epidemiology indices have, however, been reported in selected population groups, such as immigrants from the former Soviet Union⁴ or endemic areas of Greece, eg, Crete.³

E A SKLIROS
A SOTIROPOULOS
C LIONIS

Hepatitis Study Group of the Greek Association of
General Practitioners

N C TASSOPOULOS
Liver Unit, Western Attica General Hospital, Greece
Correspondence to EA Skliros, MD, Nestoros 32
Aegaleo, 122 44 Athens, Greece

Accepted 10 March 1998

Table

	Anti-HCV (+)	HbsAg (+)	p-value
n	7	8	
Age	42.1 $\pm$ 9.3	39.3 $\pm$ 7.6	NS
Sex (M : F)	4 : 5	5 : 3	NS
Risk factors			
Unknown	4 (57%)	7 (87.5%)	NS
Sexual	—	1 (12.5%)	
Transfusion	1 (14.4%)	—	
Drug abuse	2 (28.8%)	—	
Liver biopsy			
Mild hepatitis	6 (86%)	5 (62.5%)	NS
Moderate hepatitis	—	3 (37.5%)	
Cirrhosis	1 (14%)	—	
Genotype			
1b	1 (14.4%)		
2a	2 (28.8%)		
3b	4 (56.8%)		

- 1 Morgan C, Hyland C, Young IF. Hepatitis C antibody and transaminase activity in blood donors. *Lancet* 1990;335:921.
- 2 Hadzigiannis S, Dourakis S, Papaioannou C, et al. Changing epidemiology and spreading mortalities of hepatitis D virus infection in Greece. *Prog Clin Biol Res* 1995;382:259–326.
- 3 Lionis C, Koulentaki M, Bizziagos E, Kouroumalis E. Current prevalence of hepatitis A, B, C in well defined area in Crete, Greece. *J Viral Hepatitis* 1997;4:55–61.
- 4 Skliros E, Vlahos DG, Argiropoulos T. Antibodies against HCV in immigrant population from the former USSR (in Greek). *Iatriki* 1996;69:75–8.