Antibodies to Hepatitis C Virus (Anti-HCV): Prevalence in the Same Geographical Area in Dialysis Patients, Staff Members, and Blood Donors

M.	Moreno	Malaguti ^a
R.	Renata	Capece ^a
M.	Marco	Marciano ^b
G.	Giorgio	Arena ^c
M.P.	Maria Pia	Luciani ^c
M.	Maurizio	Striano ^c
M.	Marco	Biagini ^a

^aNephrology, ^bInfectious Diseases and ^cTransfusion Center, Ospedale «San Paolo», Civitavecchia, Italy

Key Words

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Abstract

We studied the anti-HCV prevalence in the same period in all the dialysis patients, staff members and blood donors of the same geographical area. In our opinion, the low prevalence (10.26%) in dialysis patients is strictly correlated to the low prevalence (0.46%) in blood donors.

Dr. Moreno Malaguti, Nephrology and Dialysis Unit, Ospedale «San Paolo», Largo Donatori del Sangue, I-00053 Civitavecchia (Italy)

Introduction

Non-A, non-B hepatitis (NANBH) is a serious medical problem in dialysis units, mainly because it evolves in over 50% of cases into chronic hepatitis [1]. Recently, a Toga-like virus has been identified as the major causative agent of NANBH, and serological assays have been developed to detect the antibody to a part of this virus (anti-HCV) [2]. We studied the prevalence of anti-HCV in the same period and in the same geographical area, in dialysis patients, staff members and blood donors.

Patients and Methods

In a rural-urban area of about 120,000 inhabitants lying in a costal strip to the north of Rome, we examined for anti-HCV 3 populations:

all the 39 dialysis patients currently being dialysed in the area; all patients, 26 males and 13 females, range of age 34-84 years, range of dialysis time 6 months to 14 years, were HBsAg- and HIV-negative. Twenty-one among them had received hemotransfusion in the past; all the 20

staff members, working in the dialysis unit from almost 1 year, 13 males and 7 females, range of age 28-51 years. All were HBsAg- and HIV-negative, one of them had been transfused 10 years

earlier; (c) 2,792 unselected and consecutive volunteer blood donors, 2,345 males and 447 females, range of age 18-60 years. Anti-HCV was detected with an enzyme-linked immunosorbent assay (Abbot Diagnostic).

Results

Four of the 39 dialysis patients (10.26%) were positive for HCV antibodies; all were males and all had a history of blood transfusion. In no patients we detected an increase in alanine aminotransferase (ALT). All the members of the staff were anti-HCV negative. Thirteen blood donors (0.46%), 12 males and 1 female, were anti-HCV positive; in 5 of them, serum ALT exceeded the upper reference value.

Discussion

The relatively low prevalence for anti-HCV observed in our dialysis patients is probably due to the low prevalence in the healthy subjects of this territory. This accounts with the difference in anti-HCV seroprevalence in Italian blood donors (from 0 to 1.73%) according to regions [3].

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