

PREVALENCE OF HEPATITIS C VIRUS (HCV) INFECTION IN HAEMODIALYSIS UNITS

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Abstract

Background. Patients undergoing maintenance haemodialysis have a significantly higher prevalence of hepatitis C virus (HCV) infection. In the present study we determine the prevalence of HCV infection in haemodialysis units in Albania.

Methods. Recently we tested 557 patients undergoing chronic haemodialysis in 5 units.

They were screened for anti-HCV antibodies using third-generation tests.

Results. Testing for HCV antibodies identified 208 patients with anti-HCV antibodies giving a prevalence of 37%. We demonstrated that anti-HCV status was linked to the time on haemodialysis provided the nosocomial transmission of hepatitis C virus infection, whereas erythropoietin therapy and dialysis in dedicated places seem to protect against HCV infection.

Conclusion. This prevalence emphasizes the importance of adhering to the recommended universal infection-control precautions.

Keywords. Hepatitis C virus infection, chronic haemodialysis, prevalence.

Introduction

Haemodialysis (HD) patients are recognized as a high risk group for hepatitis C infection than the general population. Prevalence of HCV infection varies greatly, from < 5% to nearly 60% according to different areas of the world (1). The prevalence of anti-HCV positive is currently below 10% in most but not all countries, very high > 20% rates are still observed in

association with societal crisis, war or poor economic status. The dialysis-related risk is independent and is known (around 2%/year) (2,3).

The understanding of the routes of transmission in HD has improved. There are two routes: transfusional and nosocomial transmission. With the rapidly improving sensitivity of screening of blood donors, as well as the widespread availability of erythropoiesis-stimulating agents (ESA) in the early 1990's, the role of transfusions in the transmission of HCV to HD patients dramatically decreased (4). Nosocomial route of transmission plays the key role in HCV transmission.

Although several studies have indicated that the incidence of HCV infection in chronic haemodialysis patients has decreased (5,13), HCV transmission in haemodialysis still occurs and is sometimes responsible for large outbreaks (6,7, and 8). It is important to diagnose HCV in haemodialysis patients early and accurately to prevent transmission and to ensure the appropriate management of the infection.

A lot of evidence indicates different modes of nosocomial HCV transmission in a haemodialysis unit. Several reports have suggested that HCV transmission is linked to breaches of standard precautions, leading to contamination of hands and the environment (9). The possibility of HCV transmission between patients through dialysis machines which is still controversial cannot be excluded. Sartor et al. provided evidence for HCV transmission between 2 patients sharing the same machine (10).