

Hepatitis C - A Significant Problem in Renal Patients?

Pages with reference to book, From 27 To 28

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Hemodialysis patients constitute a high risk population for infection from blood transmitted viruses. This is because such patients are frequently given blood transfusions during the course of their disease. There are also the inevitable breaks in sterility as hemodialysis requires frequent and repeated access to the patient's circulation as well as the extra-corporeal circulation of blood through a machine. These patients share an environment, personnel and equipment with other patients who, like themselves, are potentially highly infectious. There is little wonder therefore that for long a blood transmitted virus like hepatitis B has been and, in some places, still is a problem for both patients and staff of hemodialysis units¹. Two developments have however helped to contain this infection in dialysis patients. Firstly the easy availability of reliable screening tests for HBV meant that infected patients could be identified and treated on separate, dedicated machines. Secondly, with the introduction of effective HBV vaccines, patients could be immunized before they entered a dialysis programme. The sum effect was that many places in the world boasted of HBV free hemodialysis units. However, this victory has been short lived as other forms of blood borne hepatitis viruses have emerged with the result that Non-A Non-B, or in other words hepatitis C, is now the commonest liver infection in hemodialysis units². The recent discovery of hepatitis C virus (HCV) and the development of diagnostic tests³ have led to an information explosion about this virus. Dialysis units from all over the world are reporting a large proportion of their patients being anti-HCV antibody positive. Positivity rates vary from 12% in USA⁵ to 50% in Brazil. In this issue of the journal, a unit from Pakistan reports a positivity rate of 46% for HCV antibody in their patients on hemodialysis. It seems that the time has come to take a serious look at HCV infection in dialysis patients. A number of questions come to mind which require answers. Firstly, does the presence of antibody mean that the patient is infected with HCV? This question arises mainly because tests for detection of HCV antigen are not yet available. Not many studies are reported in dialysis patients which have used supplementary testing for HCV. However, the few that have used immunoblot assays like RIBA or employed PCR have shown very good correlation with the ELISA HCV antibody tests, particularly so in patients who also have raised transaminase levels^{3,6}. It therefore seems reasonable that if a dialysis patient is HCV antibody positive, he should be assumed to have HCV infection particularly if the liver enzymes are also raised. Secondly, what is the natural history of HCV infection in dialysis patients? It seems that the disease behaves in an even more indolent fashion than usual in these patients. Episodes of acute hepatitis C are characterized by an extremely mild clinical picture with levels of transaminases lower than those seen in non-uremic patients, which is probably related to their poor immune response⁷. In the chronic form, liver damage on histology has been shown to be mild as well, with the great majority of patients showing chronic persistent hepatitis only⁸. However, following transplantation, some studies have shown that liver enzymes increase and that the disease may become more progressive⁹. Indeed liver disease is a frequent complication and an important cause of death in renal transplant recipients¹⁰. What do we do to control the spread of HCV infection in our community as a whole and in high risk groups in particular? This question is loaded not only with ethical but also with strong financial issues. Clearly screening of blood for HCV will help, obviously more so in frequently transfused patients like those on hemodialysis. The incidence of post-transfusion hepatitis has been reduced from around 10% to 1% or less where blood is screened for both B and C virus¹¹. Some authors are already suggesting that anti-HCV positive patients should be dialyzed on separate machines¹². Theoretically this seems logical but is it practical in an already over

stretched dialysis service operating under great financial restraints? A fundamental change in clinical practice will probably have to wait until a lot more information is available on the subject. However, what can easily be done for the present is the adherence to strict disinfection protocols and sterile techniques in our dialysis units.

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