
Prevalence Of Hepatitis C Virus In Chronic Renal Failure Patients Undergoing Regular Haemodialysis

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Chronic renal failure patients undergoing regular haemodialysis are commonly subjected to the risk of viral hepatitis infection. The common forms of dialysis associated hepatitis, include hepatitis B, hepatitis C, cytomegalovirus hepatitis and drug induced hepatitis. The main route of HCV transmission is percutaneous, which included; haemodialysis, renal transplantation, plasmapheresis, intravenous drug use and drug addiction. Recent studies states that HCV accounts between 80% to 90% of the post transfusion hepatitis in USA. Patients with chronic renal failure undergoing regular haemodialysis are frequently in need of blood transfusion, so they are subjected to two risk factors regarding HCV infection namely; blood transfusion and haemodialysis. HCV infection may lead to serious complications such as chronic hepatitis, liver cirrhosis, hepatocellular carcinoma and aplastic anaemia. In our work we aimed at studying the prevalence of HCV antibodies in patients on regular haemodialysis as well as relation to liver affection and blood transfusion. 135 cases were included in this work, they were divided into 3 groups: Group I: Included 45 clinically free subjects as control. Group II: Included 63 patients with chronic renal failure on regular haemodialysis and with history of blood transfusion. Group III: Included 27 patients with chronic renal failure on regular haemodialysis and without history of blood transfusion. To evaluate haemodialysis as a risk factor for infection, comparison was done between all patients (group II + III) and control group. To evaluate the effect of blood transfusion per se as a risk factor in HCV infection, comparison between laboratory data obtained from group II and group III was done. All the patients were subjected to the following investigations: Full clinical examination. Kidney function tests: Urea and creatinine. Liver function tests: SOT, SOPT, bilirubin, albumin and prothrombin time. HBsAg. HCV Ab's. Results of this study showed that 63.3% of patients of chronic renal failure on regular haemodialysis (whether they had a previous history of blood transfusion or not) revealed seropositivity for HCV Ab's. 82.5% of patients of group II (with chronic renal failure undergoing regular haemodialysis and had a previous history of blood transfusion) were seropositive for HCV Ab's, while in the non transfused patients (group III) prevalence was only 18.5%. 34.4% of patients with chronic renal failure undergoing regular haemodialysis whether they had a previous history of blood transfusion or not (group II + III) were seropositive for HBsAg. 39.6% of patients with

chronic renal failure undergoing regular haemodialysis and had a previous history of blood transfusion (group II) were seropositive for HBsAg, while in the non transfused patients (group III), their prevalence was only 22.2%. So, blood transfusion is more serious as a risk factor in both HCV and HBV infections than haemodialysis. 22.2% of patients with chronic renal failure undergoing regular haemodialysis whether they had a previous history of blood transfusion or not (group II + III) were seropositive for both HBsAg and HCV Ab's. 11.1 % of the control group were seropositive for HCV Ab's. In conclusion this study shows that HCV and HBV are serious viral infections transmitted to patients through dialysis units and through blood donations, with serious affections to hepatic and renal functions. RECOMMENDATION: Our results strongly support a preventive programme for HCV similar to that for HBV regarding -both blood banks and haemodialysis units as follows: Blood bank screening for anti HCV. Separate section for any patient with suspected HCV. Separate haemodialysis units for HCV patients. Exclusion of paid commercial blood donors. Nurses and medical staff undergoes routine examination for HCV.