heptitis c virus among risky exposed personnel

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This study was conducted on 150individuals:A) 100 individuals from Liver Institute, Menoufiya University, their age ranged between 25-45 years, these individuals were classified intothree groups:1-Group 1 (control group) 20 individuals chosen from those out of risk of exposure, 10 males and 10 females, their age ranged between 26-40 years with the arithmatique mean X 31.3 years. All of them were negative for HBsAg, anti-HBc and anti-HCV.2-Group 2 (Lab. staff group): 40 individuals were from the laboratory (doctors and technicians), 22 males and 18 females, their age ranged between 26-40 years with the arithmatique mean X 29.3years, 2 of them -(5%) were positive for HBsAg and anti-HBc and 17 of them (42.5%) positive for anti HBc alone, so the percentage distribustion of HBV markers in this group was 47.5% and all the individuals of these group were negative for anti-HVC.3-Group 3 (Medical staff out of the laboratory):40 individuals (Physicians, syrgeons and nurses), 16 males and 24 females, their age ranged between 25-45 years with the arithmatique mean X 37.3 years. 3 of them (7.5%) were positive for HBsAg and anti-HBc and 15 of them (37.5%) were positive for anti-HBc alone, so the percentage distribution of -HBV markers in this group was 45% there was one (2.5%) individual positive for anti HCV.B) 50 repeated blood transfused patients (group 4):Were collected from the out patient clinic of Zagazig University Hospital and Demerdash University Hospital, 37 males and 13 females, their age ranged between 5-15 years with the orithmatique mean X 8.4 years. 23 of them (46%) were positive for anti-HCV, 2of them were positive for HBsAg and 6 of them were positie for anti-HBc and the other 27 patients were negative for anti-HCV, one of them was positive forHBsAg and 2 of them were positive for anti-HBc so the total number of patients having HBV markers was 11 (22%).All the indiveduals were submitted to general examination, urine and stool analysis. Blood samples were taken and tested for:Blood picture and ABO grouping:Viral markers including HBsAg, anti-HBc and anti-HCV using ELISA technique.Liver function tests including: AST, ALT Alkaline GGT, Total bilirubin, Albumin, total p rotein, and total globulinphosphatase.from the results of the present study we observed the following:1) The incidence of anti-HCV in lab. staff and medical staff groups were 0.0% and 2.5% respectively which is similar to that in normal populations, where the incidence of HBV markers (HBsAg and Anti-HBc) in the previous two groups were 47.5% and 45% respectively contrasts with the -relatively low anti-HCV incidence in the previous groups.2) The incidence of anti HCV in repeated blood transfusion group was 46%which was very high than the results in the previous two groups and than the results reported in USA and UK on thalassemic patients recieving multiple blood transfusion (15% and 23.2%)

respectively and the incidence of HBV markers in this group was 11 patients (22%), 3 of them (6%) positive for HBsAg and anti-HBc and 8 patients (16%)positive for anti-HBc without HBsAg which was lower than the results in the previous two groups.3- The liver function tests show that there was no statistical significance between the mean values of the liver functions of the control group and each of lab. staff and medical staff groups except in mean value of serum ALT of medical staff group which show slight significant increase. But in repeated blood transfusion group there was highly significant increase in ALT, AST, AP and, GGT and total globulin and,slight increase in total bilirubin and significant decrease in total protein and albumin.4-The differential lymphocytic count shows no statistical difference between the control group and each of lab. staff group and medical staff group, where there was slight significant decrease in repeated blood transfusion group.5-We studied the ABO blood groups and their relationship with viral markers in risky exposed personnel, we observed that, viral markers were prevalent in the blood group A (57.1 %) while those with group B show a decrease risk (43.6 %).from our results, it can be concluded that:1) HBV can be transmitted easily (as little as 0.0005 ml of infected blood can transmitt HBV) through needlestick injuries, mucous membrane exposure and contact with open wounds but HCV needs more -blood, as the major route of transmission is blood transufsion (90% of the post transfusion hepatitis are caused by NANB hepatitis virus).2)Hospital warkers have the greatest risk for HBV infection as they have the most frequent contact with blood.3)Anti-HBc antibody cannot be used as a screening test for blood donation to prevent post-transfusion NANBH, if the donar is from hopsital workers as the incidence of anti-HBc in lab. staff and medical staff groups was 47.5% and 45% respectively where the incidence of antiHCV in these groups was 0.0% and 2.5% respectively.4)Addition of anti-HCV test to the donor-screening process will substantially diminish but not eliminate the risk of transmission of HCV.Finally it is recommended to do more, elaborated study involving more than one hospital and larger number of hospital workers has longer history of contact with patients and their blood to determine the percentage distribution of HCV infection among them this will demonstrate the most important route of transmission which will help us to control and decrease the incidence of infection by HCV.