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Research Article

**ANALYTICAL STUDY OF THE PREVALENCE OF HEPATITIS
'B' AND 'C' VIRUS IN HEALTHY BLOOD DONORS IN BLOOD
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Abstract:

Objective: To determine seropositivity of viral hepatitis B and C in healthy blood donors attended the Blood Transfusion department of Nishtar and Bahawal Victoria Hospitals.

Study Design: A Retrospective Study.

Place and Duration: In the Blood Transfusion department of Nishtar Hospital, Multan and Bahawal Victoria Hospital, Bahawalpur for Six month duration from July 2018 to December 2018.

Methods: Blood donors who were admitted to the Blood Transfusion department of Nishtar and Bahawal Victoria Hospital of Multan and Bahawalpur respectively were examined for (HCV) hepatitis C and (HBV) hepatitis B by fast device procedure.

Results: The analysis of the study proved that 3.94% of blood donors were HBV positive and for HCV 12.10% were positive.

Conclusion: It is concluded that in donors who visited Blood Transfusion department of twin hospitals of Rawalpindi prevalence of Hepatitis C is more than (HBV) hepatitis B virus.

Key words: Hepatitis B & C, seropositivity, prevalence.

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INTRODUCTION:

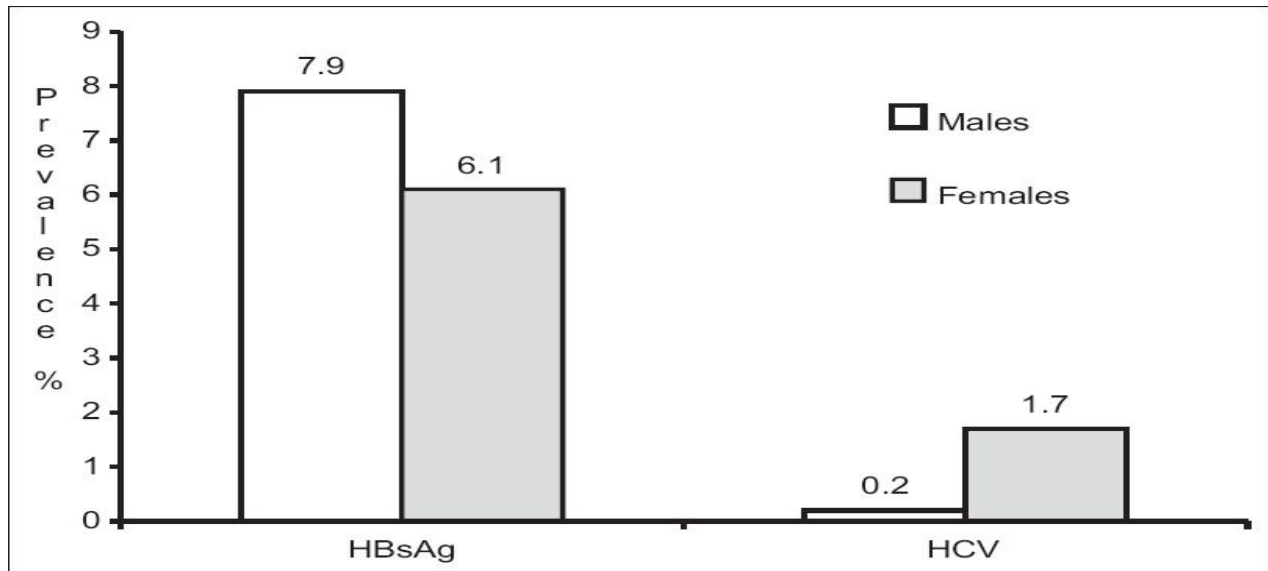
One of the main and most important causes of liver damage, worldwide, is viral hepatitis, HBV and HCV. The common feared issue of acute viral hepatitis C and B are the development of chronicity, cirrhosis (chronic liver disease) and conversion to hepatocellular carcinoma. They consume a large amount of health budget. These included different parenteral modes of administration of HCV and HBV contamination, including needle change, razor, toothbrushes, injections, blood transfusions, and unintentional needle injury. Hamid S et al. 8 stated that 4% of the total HCV seroprevalence of the 4.5 million cases of HBV carrier 3 to 6% in 10 million cases of 3 to 6%. National figures for Hepatitis B and C carriers have been reported around 23 million. This study was performed to evaluate and compare the hepatitis B and C frequency in healthy blood donors

tested in Blood Transfusion department of said two main hospitals of Rawalpindi city.

MATERIALS AND METHODS:

The study included healthy donors with no history of jaundice or clinical signs presenting to the Blood Transfusion department of Nishtar Hospital, Multan and Bahawal Victoria Hospital, Bahawalpur for Six month duration from July 2018 to December 2018.

Three ml venous blood samples were taken from each patient and serum was separated. The serum (ICT correct, US devices) was analyzed for hepatitis B virus (HCV), hepatitis B (HBsAg) and antibody surface antigen for rapid immunochromatographic test and recorded results. Data were analyzed in SPSS Version 18.0. The frequencies of positivity, hepatitis C and hepatitis B were recorded and compared the prevalence between two positive percentages.

**RESULTS:**

During a 12-month period, 3652 blood donors were HCV 442 and 9 for HBV and HCV, which were positive for total hepatitis B and HBs Ag were scanned for this 144 ° C. For both donor and recipient

HCV and HBV positive, the percentage was recorded and was found to be 3.94% for Hepatitis B Virus and for HCV it was 12.10% and 0.246% for positive donors B cases and C (table 1).

Table1: Total number of blood donors and the comparisor between number and percentages of seropositive HBV and HCV blood donors (n=3652)

Serological markers	+ve by rapid method	%of +ve cases
HBV	144	3.94
HCV	442	12.10
HBV & HCV(both)	09	0.246

DISCUSSION:

The hepatitis C and B virus prevalence in the general population of Pakistan was well established, as reported by the national survey conducted by the PMRC. Pakistan enters an infection zone with hepatitis B and C1. The results of this study indicate that HCV is highly seroprevalence from HBV. Similar results were found in a national survey conducted in Pakistan in 2014-15 [14]. The study showed that the HBV overall incidence was 3.05% and 5.09% was HCV. The results reported by Raja Amjad15 and Hafizuddin also proved a similar results of their analysis of HCV prevalence higher than HBV with 5.4% difference. The prevalence of HCV reported by a survey conducted in 3094 individuals in a hospital by Nafees and colleagues is 16.45%, which is quite high. Similarly, Frank et al18 reported an average HCV prevalence of 22% in Egypt. In the national study, the frequency of co-infection (HBV / HCV) was 0.1%. Our results were found as 0.246%. The finding should be alarming, especially for healthcare providers; because the fight against infection indicates a more serious disease that is obstacle to manage. The high HCV virus prevalence recorded in this study should be confirmed by studies based on large area population in Pakistan.

CONCLUSION:

Given the analysis of this study indicate high hepatitis prevalence, it is believed that strict protective measures are taken in medical and social practices. The most effective way is to train the masses through printed and electronic media.

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