

Prevalence of Hepatitis B & C Virus in Population of Rawalpindi, Pakistan

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Abstract: The viruses of Hepatitis B and C (HBV & HCV) usually cause chronic infection which may develop the Cirrhosis and Hepatocellular carcinoma (HCC). Moreover, carriers of chronic hepatitis become the source of transmission of the disease throughout their lives. The current study is designed to evaluate occurrence of HBV & HCV infection in community of Rawalpindi. Each patient was tested out by screening their serum samples for the incidence of both HBV & HCV. The achievements of present study were analyzed statistically to uncover occurrence of HBV & HCV in patients.

Keywords: Hepatitis, cirrhosis, hepatocellular carcinoma.

I. Introduction:

Hepatitis A virus (HAV), hepatitis B virus (HBV), and hepatitis C virus (HCV) are most common causes of viral hepatitis. In acute phase, these viruses show symptoms like vomiting, exhaustion, jaundice and disquietness. Hepatitis B virus (HBV) is a member of *Hepadnaviridae*. [6]. Hepatitis B virus (HBV) can cause both acute or chronic hepatitis. [2]. Chronic HBV infection may develop in hepatic decompensation, cirrhosis and hepatocellular carcinoma (HCC). [1]. Almost 350 million persons suffer from chronic infection of HBV, of which approximately 20% patients develop cirrhosis due to severe fibrosis and nodular regeneration, some of which remain asymptomatic and others develop life-threatening complications. About 1 million patients die every year due to Chronic HBV infection. [1,3]. Parenterally HBV and HCV transmit by sharing of injections, tooth brushes, razors, unscreened blood transfusions, organs for transplantation from infected donors and accidental needle-pricking in healthcare providers.[4,5]

II. Methodology:

Study design: This study was conducted in Tertiary care Hospitals of Rawalpindi district. Patients were selected, referred by physician of tertiary care hospitals of Rawalpindi. Questionnaire was used to record relevant information of subjects asking for a medical examination such as Name, age, sex, occupation, prohibited medicine exercise and sexual practices. After filling this questionnaire Patients were selected for viral serology and screened for HBV and HCV infection.

Sample Collection: 1040 sample were collected according to standard methods used in hospital. Three ml. of venous blood sample was collected in gel clot containers from each patient and its serum separated by centrifugation and stored in refrigerator until processed. Esteem of Hepatitis B and Hepatitis C be evaluated by ELISA method.

III. Results:

In this cross sectional study 143 patients were positive for HBV and HCV. Over all frequency of HBV Positivity was 2.88% and HCV was 10.86%. That shows frequency of HCV is higher as compared to HBV in population of Rawalpindi district.

In these positive patients 56.64% were males and 43.36% female. HBV was increased in female as compared to males. And HCV was little increased in males. In positive female patients 22.58% women were pregnant.

Age range and number of positive patients of Hepatitis Virus are given in Table 1. While number of Hepatitis B and Hepatitis C upbeat patients, digit of males and females activist patients and numeral of positive patients in different age groups are given respectively in, chart 1,2 and 3.

References:

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Table 1: Age range and number of positive patients of Hepatitis Virus

| Years | Number | Percentage |
|-------|--------|------------|
| 1-15 | 02 | 1.39 % |
| 16-30 | 15 | 10.48 % |
| 31-45 | 58 | 40.55 % |
| 46-60 | 62 | 43.35 % |
| >60 | 06 | 4.19 % |

Table shows high frequency of HBV and HCV in between age set of 30 - 60 years and low frequency in less than 30 years and above 60 years age groups.

Chart 1: This chart shows number of Hepatitis B and Hepatitis C positive patients.

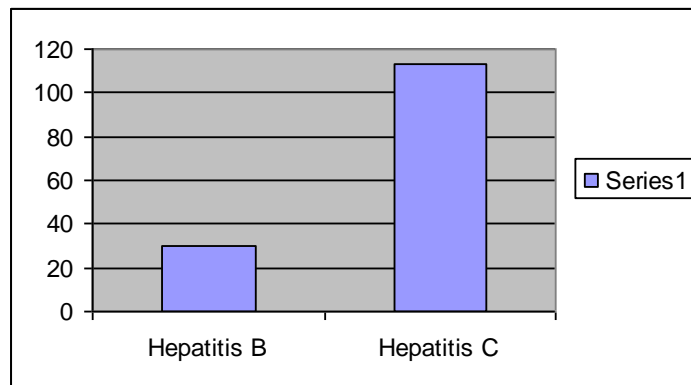


Chart 2: This chart shows number of males and females positive patients.

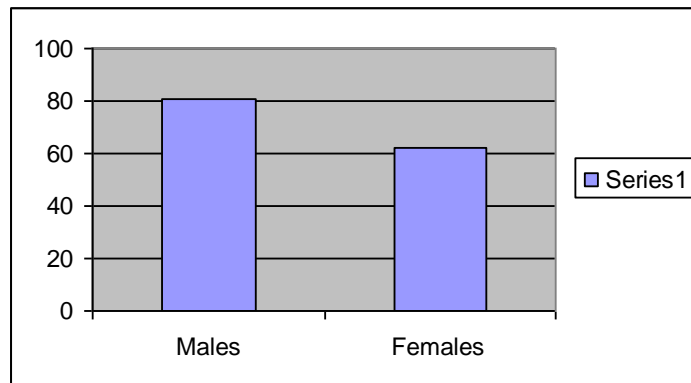


Chart 3: This chart shows number of positive patients in dissimilar age groups.

