Vol. 16, No. 4
ORIGINAL PAPER

MEDICINE

MEDICAL CHANNEL
OCTOBER- DECEMBER 2010

FREQUENCY OF HEPATITIS D CO/ SUPER INFECTION IN HEPATITIS B PATIENTS

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ABSTRACT

OBJECTIVE: To determine the frequency of co/ super infection of hepatitis D in patients with hepatitis B related liver disorders.
MATERIALS & METHODS: *This prospective descriptive study was conducted at* Ghulam Mohammed Medical College Sukker *during September 2008 - December 2009. After obtaining informed consent patients diagnosed with HBV associated infection were enrolled in the study.*
Blood sample was obtained from 223 patients who satisfied the inclusion criteria. Patients with an incomplete test profile were excluded. All baseline investigations were obtaining in addition to liver function tests, coagulation profile, abdominal ultrasonography, upper gastrointestinal endoscopy and liver biopsy.
The diagnosis of liver cirrhosis and hepatocellular carcinoma (HCC) were established either on the base of histopathology, or on in addition to radiological, endoscopic and laboratory data. Hepatitis B virus DNA was extracted from serum by real time PCR. Statistical analysis was done through SPSS 17. Descriptive statistics were used for frequency and mean determination.
RESULTS: *Out of 223 patients, 148 patients finally selected for statistical analysis included 116 (78.37%) males and 32 (21.62%) females. The ages ranged from 11- 63 years. There were 78 (52.70%) patients of non-cirrhotic, chronic hepatitis (CLD), 43 (29.05%) carriers, 16 (10.81%) cirrhotics and 11 (7.43%) Hepatocellular carcinoma (HCC) patients. Among the 148 patients, 58 (39.18%) were positive for double infection with HDV. These included 41 CLD cases, 11 cirrhotic and 5 carriers.*
CONCLUSION: *The frequency of co/ super infection of hepatitis D were highest in HBV cirrhosis patients as compared with patients having chronic liver disease (non-cirrhotics) and carriers.*

KEY WORDS: Hepatitis D virus co/ super infection, Hepatitis B virus, Cirrhosis, Chronic liver disease.

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INTRODUCTION

Hepatitis B infection (HBV) is hyper endemic in South Asia, but the frequency of co/ super infection with HDV is generally not known. The objective of the present study was to determine the frequency of the co/ super infection of hepatitis D in patients with hepatitis B related liver disorders.
Presence of dual viral infections has been reported from various parts of the world. Since hepatitis B and D share the same mode of transmission, hepatitis B virus (HBV) combined infection with HDV is a fairly frequent occurrence among intravenous drug users and subjects with a high risk of parenteral infection, particularly in areas where all these viruses are endemic. It is generally considered a condition favoring the progression of liver cirrhosis and represents one of the most important risk factors for the development of hepatocellular carcinoma.[1]. Hepatitis delta virus (HDV) is a RNA viral agent that obliges hepatitis B virus for packaging and transmission. HBV provides the envelope (HBsAg) proteins for the assembly, release, and spread of virions containing the HDV RNA genome. By itself, it is unable to replicate, initiate or infect other cells completely.

MATERIALS & METHODS:

The previously diagnosed HBV positive, 223 registered patients, irrespective of age or gender, reporting for a follow-up at the Outpatient Department, were investigated for their current status and co/ super infection with HDV during September 2008 - December 2009 Out of 223 patients, who were selected for study, 75 were excluded due to their