INTRODUCTION:
Hepatitis B virus (HBV) infection, one of the common infectious diseases in the world and a public health problem, infect the liver of hominioidea including humans causing inflammation (hepatitis) and is 50-100 times more infectious than HIV and ten times more infectious than hepatitis C virus (HCV), with many carriers not realizing they are infected with the virus, thus referred to as silent killer. It is estimated that more than two billion people have been infected with HBV worldwide and 350 million people have the chronic infection. The seropositive for HBsAg transmit the virus to neonates but in women who are seropositive for both HBsAg and HBeAg, vertical transmission is approximately 90% (1). Infection could be acute when it lasts less than six months and often leads to cirrhosis and hepatocellular carcinoma while the highest risk (80-90%) of chronic infections have been found among infected neonates born to HBeAg positive carrier mothers followed by 30% of children infected before six years of age. Acute infection in pregnancy has been shown to induce premature labour with its attendant effects including intraventricular hemorrhage and intra-partum and post-partum haemorrhage from coagulation failure due to inadequate vitamin K dependent clotting factors production especially when prothrombin time is prolonged as in fulminant hepatic failure during chronic infections.

This research therefore is necessitated because of the high rate of miscarriages and pre mature births among all groups of child bearing women in this country. This study was carried out to determine the prevalence of HBV and HCV in pregnant women. The objective of the study is to associate the prevalence of hepatitis virus B & C with gravida, previous history of jaundice and gestational age of the antenatal women.

METHODS:
This study is a cross sectional randomized trial retrospective study. This study was conducted in a tertiary care hospital and Department of Microbiology Dr. A.L. Mudaliar Post Graduate Institute of Basic Medical Sciences, Taramani Chennai on 1000 apparently healthy antenatal women of age group (18-35) years attending OPD were screened for Hepatitis B & C viruses between November 2001 and June 2002. These hospitals were chosen because of reports showed that there was a high frequency of attendance of ante-natal patients in this hospital. Patient particulars were filled using a schedule. About 5 ml of venous blood was collected from the samples under strict aseptic precautions using disposable syringes. Sera was separated and stored at -80°C under sterile conditions.

Screening for Hep. B virus.
The Hepatitis B surfaces antigen was screened for using HEPALISA. HEPALISA is a solid phase enzyme linked immune sorbent assay (ELISA) based on the direct sandwich principle. The microwells are coated with monoclonal antibodies with high reactivity for HBsAg. First the samples are incubated in the wells. After washing the wells, another antibody linked to Horse radish peroxidase (HRPO) is added. A sandwich complex is formed in the well wherein HBsAg (from serum sample) is trapped or sandwiched between antibody and antibody HRPD conjugate unbound conjugate is then washed off with wash buffer. The amount of bound peroxidase is proportional to the concentration of HBsAg present in the sample. Upon addition of the substrate reaction, stop solution is added and a yellow colour develops which is finally read at 450nm spectrophotometrically.

Screening for Hep. C virus:
This was done using 3rd generation HCV microlisa and it is an in-vitro qualitative enzyme linked immune sorbent assay for the detection of antibodies against HCV in human serum or plasma.

The Statistical analysis Z test and chi-square test were utilised and the statistical tools percentage, average etc were used to discreet and continuous variable in the study using MS Excel and online statistical software.

RESULTS:
Hypothesis:
H0 = the prevalence of HBV carrier rate is 2.8% in Indian literature
H1 = the prevalence of HBV carrier rate is 2.8% in Indian literature

Formula, for Z test

\[
Z = \frac{\hat{P} - P}{SE}
\]

Where \( \hat{P} \) is the sample proportion of HBV is 0.054, \( P \) is the population proportion equal to 0.028

\[Q = 1-P = 1-0.028 = 0.972\text{ and } n = 1000\]

Therefore \(Z = (0.054 - 0.028)/\sqrt{0.054x0.972}/1000\)

\[Z = 0.026 / 0.0072448 = 3.5887\]

Result:
Since the Z value is 3.5887 which is greater than the table value of 1.96 at 5% level of significance, the null hypothesis is rejected and hence the alternative hypothesis is accepted. Therefore, the prevalence of HBV rate of 5.4% is correct in the sample and it is statistically significant at p-value 0.00332.
The table 1 shows that out of the 1000 randomly screened 54 were found to be positive for the hepatitis B surface antigen and the prevalence rate of HBV was 5.4%. Similarly, the prevalence of HCV was found to be 0.5%.

**CONCLUSION**

In our study, 53.52% of women who were sero positive did not have any contributory risk factors. The overall carrier rate was found to be 5.4% for HBV in our study which is in par with other Indian Studies. The overall carrier rate was found to be 0.5% for HCV in our study which is in concurrence with other studies. It is suggested that all pregnant women be routinely screened for HBV in the 3rd trimester and it was statistically significant at p-value <0.05.

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