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PREVALENCE OF HEPATITIS B IN ANTENATAL WOMEN IN A TERTIARY CARE HOSPITAL

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Introduction
Hepatitis B contagion occurs worldwide and constitutes a serious public problem. According to WHO, HBV infection is 100 times further murderous than HIV and thus requires further attention. Despite vacuity of a vaccine, HBV infection is aboriginal, estimated to affect 400million people worldwide with veritably high carriage rate (up to 20) particularly in south and East Asia. Worldwide perpendicular transmission remains the most frequent route of infection particularly in aboriginal areas where up to 20 of women of travail age may have HBV. These women constitute a force of perinatal transmission, which is associated with a veritably high rate of regularity (up to 90) in babies when HBsAg and HBeAg is positive. Transmission of HBV can be averted by vaccination of babies. But despite prophylaxis perinatal transmission of HBV occurs in a small proportion of babies who admit complete active- unresistant immunisation. High motherly viraemia and HbeAg positivity has been associated with intrapartum transmission and vaccine advance. Antiviral remedy during the third trimester of gestation in high riskwomen with habitual HBV infection reduces viral cargo in the mama and drop the threat of transmission, although data are lacking. Safety data in gestation are most robust with LAMIVUDINE and TENOFOVIR compared with other curatives. Hence effective motherly webbing and immunoprophylaxis of babes remains the stylish system of forestallment of mother to child transmission.

Objective
To study the prevalence of Hepatitis B in antenatal population in a tertiary care hospital

MATERIALS & METHODS
Antenatal women attending outpatient clinic in a tertiary care hospital
SAMPLE SIZE
Hundred antenatal women attending outpatient clinic.
INCLUSION CRITERIA
All antenatal women attending outpatient clinic are included in the study
INVESTIGATIONS
Initial investigations: HbsAg and anti Hbc and other relevant investigations.
Data is expressed as descriptive statistics

Results
Out of the 100 women screened, 5 tested positive for hepatitis B surface antigen. Seroprevalence accounts to about 5%.The prevalence rate increased with increase in parity. It was highest among multigravida (7%), followed by second and primi gravid with a prevalence of 5% and 4% respectively. The prevalence rate in different group was statistically significant with $p < 0.05$.
The seroprevalence in different trimesters were almost similar and statistically insignificant with $p > 0.05$.
Previous history of jaundice was observed to be high (28%).

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Figure 1: Prevalence of hepatitis B in antenatal women

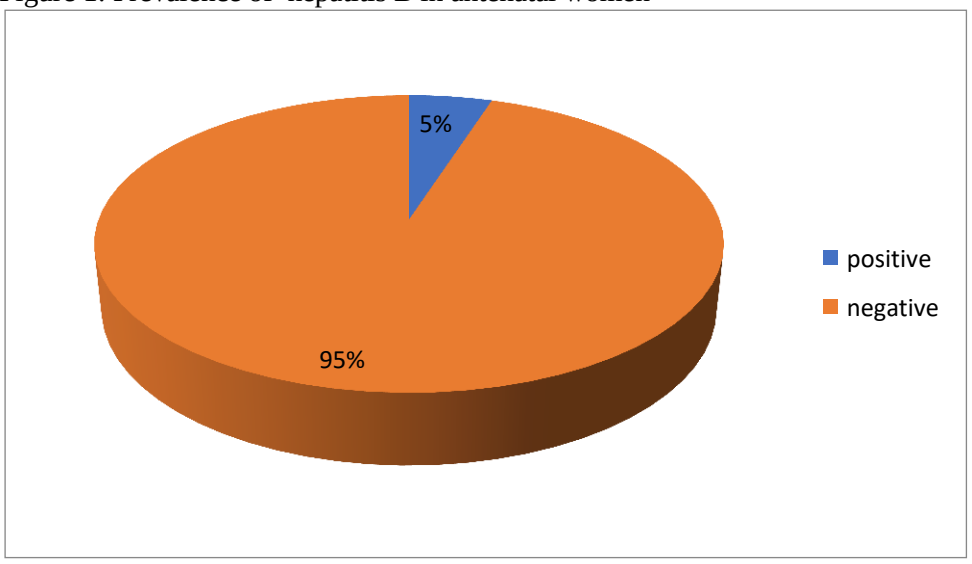

Figure 2: Prevalence of hepatitis B and gravida in antenatal women

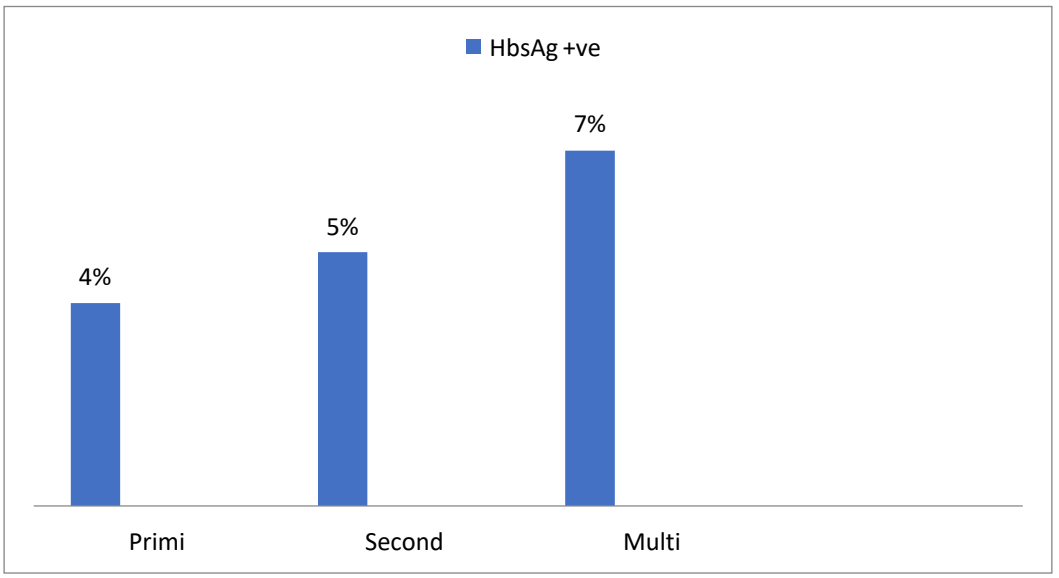

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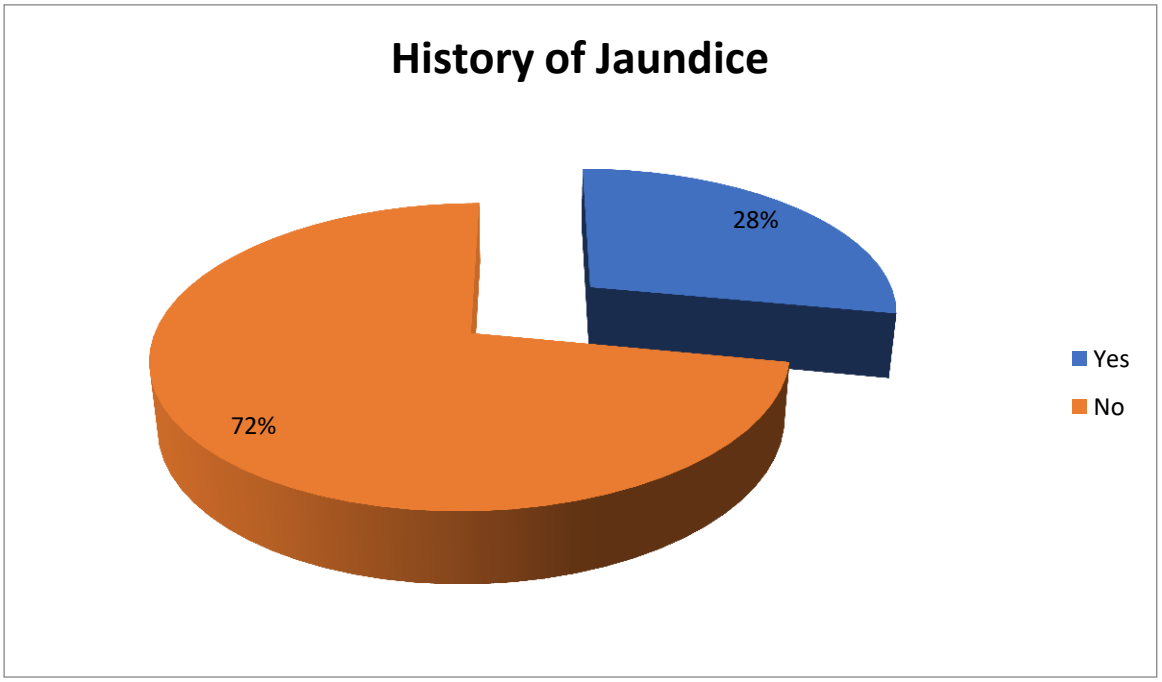
Figure 3: Prevalence of hepatitis B and history of jaundice in antenatal women



DISCUSSION& Conclusion

In this study the sero prevalence of HBsAg among pregnant women was found to be 5%. sero epidemiological studies of different populations show variations and differences. These differences can be attributed to various factors like type of population studied, geographical region, genetic factors and socio economic conditions. The HBsAg positivity in antenatal pregnant women in India ranges from 1 to 12.3% with a mean of 4.22%. Similar study conducted by manisha et al in 2008 at Allahabad reported 0.9 % prevalence. Other studies conducted in India between 1987 – 2000. Nayak et al (3.7%), panda et al (2.6%), gill et al (5.0%), biswas et al (2.3%) and mittal et al observed 6.3% prevalence rates.

A significant difference and increase in prevalence rate was observed with increasing age among the seropositive group as reported in many other Indian and foreign studies, except for the Allahabad study (manisha et al in 2008) where a slight non-significant decline was observed with increasing age group. Also a higher and statistically significant frequency of HBsAg positivity was observed in multigravida.

According to Centres for Disease Control guidelines, every pregnant women should be tested for HBs Ag during each pregnancy. Our results show that the HBsAg tests have been done more in the third trimester. This is due to lack of awareness among pregnant women.

In our study, even though history of jaundice was observed in high percentage among the seropositive women, such icteric episodes could not be taken as a significant risk factor as the cause of the icteric episode cannot be ascertained. However there were a small percentage of seropositive patients without any identifiable risk factors. Also a significant percentage among the seronegative group had one or two risk factors.

HBeAg positivity rate among HBs Ag positive antenatal women have shown geographical variationsin different parts of India as reported by Shenoy et al. HBe Ag positivity in our study {25%} was 50 %less study conducted by Manisha et al at Allahabad.

Mothers who were affected in the 3rd trimester transmitted infection to the babies more than the mothers infected in 1st and 2nd trimester. Similar results were found in other studies. A significant association between e antigen positivity and HBV DNA and transmission of infection to babies was observed in our study. This once again proves that the combination of e antigen and HBV DNA is a more sensitive indicator of vertical transmission.

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Two women had high titres of HBV DNA (> 100000) and presence of HBeAg, detected in the third trimester, both of them were started on LAMIVUDINE 100 mg twice daily and advised to continue 6 weeks postpartum.

Transmission rates and significance depending on the mode of delivery could not be ascertained because all patients who were screened did not deliver in our institution, hence baby follow up was practically difficult for all patients.

References

1. Govindarajan, Smedlie A, DeCock.K.. et al Study of reactivation of Chronic hepatitis antigen. Journal of Hepatology. 9,204-208,1989.
2. Ganem D, Schneider RJ (2001) Hepadnaviridae, the virus and their replication.
3. Kramvis A, Kew MC (2005) Relationship of genotypes of Hepatitis B
4. virus to mutations, Disease progression and response to antiviral therapy. J.Viral Hepatology 12: 456-464.
5. Norder H, Hammas B, Lee SD, Bile K, Courouce et al (1993) Genetic related hepatitis B viral strains of diverse geographical origin and normal variation in the primary structure of surface antigen.Journal of General Virology
6. Kidd-Ljunggren K, Miyakawa Y. et al. Genetic variability in hepatitis B viruses. J GenVirol. 2002;83: 1267-1280.
7. Arauz-Ruiz P, Norder H, Robertson BH. Et al. Genotype H: a new meridian genotype of hepatitis B virus revealed in Central America.
   J GenVirol. 2002; 83:2059-2073.
8. Kao JH, Chen PJ, Lai MY, Chen DS. Genotypes and clinicalphenotypes of Hepatitis B virus in patients with chronic hepatitis B virus infection. J Clin Microbiol. 2002;40 : 1207-1209.
9. McMahon BJ, Holck P, Bulkow L, et al. Serologic and clinical outcomes of 1536 Alaska natives chronically infected with hepatitisB virus. Ann Internal Med 2001;135:759-768.
10. Sumi H, Yokosuka O, Seki N, et al. Influence of hepatitis B virusgenotypes on the progression of chronic hepatitis B liver disease.Hepatology 2003;37:19-26.
11. Chu CJ, Lok ASF. Clinical significance of hepatitis B virus genotypes. Hepatology 2002;35:1274-1276.