

Prevalence of Hepatitis B and Hepatitis C Virus Infection among Pregnant Women in Meerut

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Abstract:

Background: There are little data on the prevalence of hepatitis B and hepatitis C viruses in pregnant women in Meerut.

Objectives: This study was designed to determine the prevalence of hepatitis B virus (HBV) and hepatitis C virus (HCV) infection among pregnant women.

Material and Methods: Blood samples of 5042 pregnant women were collected.

Result and Discussion: overall prevalence, 162(3.21%) samples, sixty four (1.26%) for HBsAg and ninety eight (1.94%) for HCV were found positive.

Conclusions: These results underscore the need for prenatal screening for HBV infection in pregnant women and treatment of newborns from HBsAg-positive mothers.

Keywords: Prevalence, Pregnant women, Hepatitis.

I. Introduction

Hepatitis B is one of the most highly transmitted forms of hepatitis from mother to child around the world, especially in developing countries. In the United States, 15,000 women a year who are positive for the hepatitis B surface antigen (meaning they have the disease) deliver. Although the mother will usually become jaundiced during the acute stage, some women have no symptoms of hepatitis, which is one reason why CDC guidelines include mandatory screening of all women for hepatitis B during the first prenatal visit. Why? Because this virus is highly contagious, and the risk that the newborn infant will develop hepatitis B is 10 to 20% if the mother is positive for the hepatitis B surface antigen, and as high as 90 percent if she is also positive for the HBsAg. Usually, the disease is passed on during delivery with exposure to the blood and fluids during the birth process⁽¹⁻⁴⁾. Hepatitis C, Most women become pregnant during the years between 20 and 40, which is also the age group in which the incidence of hepatitis C infection is rising most quickly. Any woman with risk factors for hepatitis C (such as exposure to transfusions, contaminated needles, or injected drug use) should be screened for hepatitis C before and during pregnancy. The risk of a pregnant woman passing the hepatitis C virus to her unborn child has been related to the levels of quantitative RNA levels in her blood, and also whether she is also HIV positive. The risk of transmission to the infant is less (0 to 18%) if the mother is HIV negative and if she has no history of i.v. drug use or of blood transfusions⁽¹⁻⁴⁾. Therefore this study is design to know Prevalence of Hepatitis B and Hepatitis C Virus Infection among Pregnant Women in Meerut.

II. Material And Method

A total of 5042 blood samples were tested, in Dept. of Microbiology, Govt. Medical College, Meerut. Out of which 162(3.21%) samples, sixty four (1.26%) for HBsAg and ninety eight (1.94%) for HCV were found positive.

III. Result And Discussion

Overall prevalence, 162(3.21%) samples, sixty four (1.26%) for HBsAg and ninety eight (1.94%) for HCV were found positive. As shown in our study, HBsAg prevalence rate was 3.21% among pregnant women, which is lower than the prevalence rates reported by Gill et al⁽⁵⁾.(5%) and Mittal et al⁽⁶⁾.(6.3%). The results of our study are comparable to Sehgal⁽⁷⁾ (2.6%), Gupta⁽⁸⁾(2.5%), Panda⁽⁹⁾ (2.6%) and Nayak⁽¹⁰⁾ (3.7%) studies. The results from our study is slightly higher than those reported by Biswas et al⁽¹¹⁾(2.3%). The prevalence of HCV 1.94%, which is compared to the rates reported by Shaikh, F et al⁽¹²⁾(1.03%).

IV. Conclusion

These results underscore the need for prenatal screening for HBV infection in pregnant women and treatment of newborns from HBsAg-positive mothers.

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