

Short Communication

'Preventing Vertical Transmission of Hepatitis B Virus (HBV) can yield HBV free Future Generation, and It Requires Effective Marital Law Support!!

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Dear Editor,

As we know that native Hepatitis B viral infection has 4 stages, like: Immune tolerance, immune clearance, immune control and immune escape. Based on this fact, we plan to write this article for our mass people. During my observation in recent past, I have found many pregnant women who were vaccinated against hepatitis B after HBsAg negativity, developed HBV infection.

I have seen many patients who had chronic HBV infection but their mothers intrigue HBsAg negative on screening. We convinced our patients to do necessary tests for their respective mothers to know whether they had HBV infection in the past by screening anti-HBc to ascertain vertical infection among those patients who had chronic hepatitis B infection.

Based on a series of observation on seven adult persons (4 males, 3 females) possessing high social status having no history for risky behaviors nor history of blood transfusion but remained HBsAg+. I have conducted a short-term survey on these persons. Since all of them remained HBsAg positive beyond next 6 months period, this fact compelled me to go for checking their respective mothers' immune status against HBV.

I have observed few cases of HBV viral infection in late pregnancies which motivated me to administer antivirals to these pregnant women- which prevented vertical transmission and early vaccination failure against HBV in them.

It is well known that, T-Helper-1 (Th¹) is suppressed during pregnancy which may cause transient reactivation of HBV infection causing vertical transmission. So, HBV infection can be prevented by screening all pregnant women by checking HBV Immune status and thus providing treatment accordingly, vaccination against HBV, and administering antiviral drug to those who had past HBV infection^{1,2}. We can, thus, assure a HBV-free next generation, hopefully.

- Undoubtedly, mother to child transmission (MTCT)/vertical transmission is preventable but awareness to prevent such catastrophic infection, a premalignant state, is not emphasized much. Lack of treatment modality to prevent MTCT of hepatitis is available and cost effective too. Towards eradication of HBV-treatment approaches and status of clinical trials remain affirming. To do so to make it's a reality of HBV eradication by cutting vertical transmission.

- While birth dose (BD) vaccination + targeted Hepatitis B Immuno-Globulin (HBIG). Introduction of maternal antiviral prophylaxis with Anti-HBc and sequential HBeAg testing remains a cost-effective yet essential approach. Moreover, in terms of effectiveness, the maternal antiviral prophylaxis with sequential HBeAg testing remains the intervention of choice. The analysis showed that elimination of HBV MTCT is achievable using maternal antiviral prophylaxis with both active and passive immunization.^{3,4}

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Received Date : 09 October, 2019

Accepted Date : 15 December, 2019

- Serologic testing for HBsAg in pregnant women is the most common screening strategy for HBV during pregnancy. Germline infection from the infected sperms and ova of the HBV carriers is a potential mechanism of in-utero infection. HBV DNA has been identified by in-situ hybridization with a gradient of infected placental cells from the maternal to fetal side, which supports intrauterine HBV infection as a mode of vertical transmission.⁵⁻⁸
- Hepatitis B virus (HBV) infection during pregnancy can pose a substantial risk to infants at birth. Perinatal transmission of HBV can occur if the mother acquired acute hepatitis B during late pregnancy or in the early postpartum period, or if the mother is chronically infected with HBV.⁹
- Acute and chronic viral hepatitis in pregnancy is common with most infections caused by HBV. The transmission routes vary and clinical suspicion is useful because the presentation of infection may range from asymptomatic infection to liver necrosis.¹⁰
- Universal screening in pregnancy is recommended by all professional organizations for HBV and by most of them for HCV. Bprophylaxis with Tenofovir reduces the rate of HBV vertical transmission. New options to treat, cure, and prevent viral hepatitis in women before and during pregnancy are essential.

Final Comment

Based on the aforementioned its and observational, my view is- there should be effective law to enforce marriage registrar (Theologian) to get approval from competent authority for safe marriage. Premarital health screening is characterized as directing examination for couples planning to wed; keeping in mind that the end goal is to recognize if there is any or damage with hereditary blood maladies, for example, sickle-cell anemia (SCA) and Thalassemia, and some infectious sicknesses, for example, hepatitis B, C and HIV "AIDS". This is to give restorative counsel on the chances of transmitting these diseases to the next generation later on, and to give choices and alternatives before prospective weds with the point of helping them get ready for a healthy, sound family, in future.

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