Does any correlation exist between HBV DNA viral load and HBeAg/Ab titer using Real Time Taqman PCR and conventional serum titration techniques respectively? The National Hospital Abuja Nigeria Experience

Ajobiewe Olu Joseph
National Hospital Abuja, Nigeria

Aim: The aim of this study is to strictly examine the level of correlation between HBV Viral Load and HBeAg/Ab titer using Real Time Taqman PCR and conventional titration techniques respectively.

Statement of Problem: Most facilities lack the affordability of the state of the art Real Time Taqman PCR Machine for HBV Viral load determination, hence following up the response of Hepatitis B infected patients to antiviral therapy is often done haphazard or not at all in most health institutions. A much simpler traditional/conventional HBeAg/Ab Titration technique could offer an alternative solution in health settings unable to afford Real Time PCR Machine for viral load estimation, only if these two techniques positively and highly correlate with each other.

Method: Unisex archival patient sera samples aged between 20-60 years that had been earlier analyzed for HBV DNA viral load using Real Time PCR Machine (Roche) with strict adherence to manufacturer’s instructions were randomly selected for this work in our laboratory. The samples were stratified into very high (≥50,000,000 copies/ml) high (≥10,000,000 to <50,000,000 copies/ml), medium (≥2,000,000 to <10,000,000 copies/ml) and low (<2,000,000 copies/ml). HBeAg/Ab levels in the sera were also determined and titrated using CTK Biotech onsite rapid test kit/ELISA technique. The HBV DNA viral loads were matched with the HBeAg/Ab Titers to test their levels of correlativity.

Result: High Spearman’s ranked correlations, R, 0.9 were observed at each of the very high, high, and medium and low HBV DNA viral load strata examined with the HBeAg/Ab sera high titers and low titers respectively as measured and matched.

Conclusion: In poor resource health settings, it is suggested that the traditional/conventional Sera HBeAg/Ab titration technique could be used instead of HBV DNA viral load measurement. The high cost of the later sometimes renders it unaffordable in such poor health settings despite its robustness and accuracy.

Biography
Ajobiewe Olu Joseph has completed his PhD in Microbiology with specialization in Virology from the University of Abuja in Nigeria. He is currently an Assistant Director at the Microbiology Department, National Hospital Abuja. Also a Visiting Senior Lecturer to the prestigious Bingham University at New Karu, Nassarawa State of Nigeria. He had presented several papers at both national and international conferences. He has also authored many publications in both local and international Journals of high reputations.

josephajo2000@yahoo.com