

A Comparative Study between HBV Viral DNA Detection and Conventional Serological Methods of Diagnosis

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Abstract: This work was directed to get a comparison between the conventional methods ELISA commonly used in lab study for detection of viral hepatitis B and viral DNA by PCR. Thirty plasma samples were collected from patients referred to the Babylon GIT Center in Merjan Teaching Hospital. Those patients were already suffering from viral hepatitis B, or newly diagnosed as being infected with HBV and diagnosed after blood donation and a screening of their family members. Patients were segregated according to age, gender, disease duration. Viral antigenaemia (serum HBs Ag.) was estimated by ELISA technique, while HBV viral DNA was detected after extraction of plasma DNA by Real-Time PCR. Detection of viral revealed 6 (20%) cases with undetectable viral load in their plasma, indicating either, the virus load was below the detectable level of the PCR Kit, or false positive by ELISA, assuming that detection of viral DNA carries a high rate of specificity and sensitivity. Comparison between DNA copies and the level of HBs Ag. Revealed that most instances of high HBs Ag. Demonstrate a high viral load of DNA copies.

Keyword: HBV, Real-time PCR, ELISA, HBs Ag.

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