"A COMPARITIVE STUDY TO DETECT HEPATITIS B SURFACE ANTIGEN IN SALIVA AND SERUM BY ENZYME LINKED IMMUNOSORBENT ASSAY (ELISA TEST) – "AN INVIVO STUDY "

By

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ABSTRACT

BACKGROUND AND OBJECTIVES: Hepatitis B virus (HBV) has been well known for its parenteral and sexual dissemination. Applying ELISA it has also been detected in saliva. The high prevalence of HBV among dentist personnel, children in institutions and family members suggests that HBV can be spread by saliva. The present study is done to assess the efficacy of saliva and serum in detection of hepatitis B surface antigen in suspected hepatitis B patients.

METHOD: This study include 40 patients with suspected Hepatitis B patients. 2 ml of Saliva and Blood samples were collected from 40 suspected hepatitis B patients. All saliva and serum samples were tested for Hepatitis B surface antigen applying ETI-MAK 4 ELISA KIT (DiaSorin S.p.A., ITALY).

RESULTS: In our study, out of 40 patients, 37 serum samples were positive and 3 samples were negative for HBsAg. Whereas, 31 saliva samples were positive and 9 were negative in saliva samples for HBsAg. Mean value for serum samples was 3.61 and saliva samples 1.69. The mean difference was 1.921. Higher mean hepatitis B antigen is found in serum samples compared to saliva samples. The difference in hepatitis B antigen between serum and saliva samples is found to be statistically significant ($P<0.001$). The data illustrate the diagnostic value of saliva and point to the possible role of saliva as a source of hepatitis B virus infection.

CONCLUSION: The data revealed that testing of saliva samples for hepatitis B virus markers provided a useful alternative to serum-based assays. The convenience, reliability, and minimal non-invasive nature of this method make it an attractive tool for the selection of non-immune candidates for vaccination against hepatitis B.

Key words: Hepatitis B, ELISA, HBV antigen, saliva,