SUMMARY

The diagnosis of HBV infection has been previously determined by evaluating HBV immunological markers, namely HBsAg and HBeAg, but the correlation of these markers with the infectious particles is not absolute. Moreover, many HBeAg-negative patients still have small amounts of circulating HBV-DNA. In addition a frequent variant form of HBV, charecterized by severe chronic active hepatitis and the presence of HBV-DNA without HBeAg is common in the Mediterranean countries.

After HBV cloning , molecular hybridization techniques have been established for detection of HBV-DNA in serum and liver tissue, and it has become the most sensitive marker of viral replication and infectivity.

Those previous accumulating data have motivated us to conduct this study to throw more light on the value of HBV-DNA estimation in chronically HBV- infected patients and its possible correlation with other serological and biochemical markers.

This work has been carried out on 63 male patients with chronic HBs antigenaemia aged 19-53 years. They included 27 patients with evidence of schistosomiasis.

It was emphasized to exclude other causes of CLD as VHC&VHD and non viral causes as alcoholism , drug induced hepatitis , auto -immune hepatitis and metabolic disorders.

All the patients were subjected to the following:

* Careful history taking and thorough clinical examination. Urine and stool analysis and rectal snip biopsy..
* Liver function tests.
* Complete serological profile of HBV infection.
* Detection and quantitation of HBV-DNA in serum using a radiological molecular hybridization assay.
* Abdominal ultrasonography.
* Liver biopsy, when it was possible.

The patients were divided into the following groups according to the recent classification of viral hepatitis B which is based on the viral replication markers and liver cell inflammation:

Group A : *Chronic HBV infection" immune tolerant stage"*

Group B: *Chronic VHB " immune-elimination stage"*

Group C: *Chronic VHB" Dormant or inactive stage"*

Furthermore , group B was divided into 2 groups:

B1: *Typical cases (wild type) of group B.*

B2: *Atypical cases (Pre-core mutant) of group B.*

In addition

Group B1 and C: were subdivided according to the presence or absence of schistosomiasis into the following subgroups .

Bns : ***Non schistosomal cases of group B1***

Bs : ***Schistosomal cases of group B1.***

Cns : ***Non schistosomal cases of group C.***

Cs : ***Schistosomal cases of group C.***

The HBeAg/HBeAb system and serum HBV-DNA were used to define the state of viral replication, while liver function tests "LFTs" were used as indicators of liver cell inflammation "LCI"

The highest levels of serum HBV-DNA were detected in group "A" (representing the high replicative, immune-tolerant stage) with no signs of liver cell injury and normal liver biopsy