

LIVER DISEASE IN ASYMPTOMATIC ANTIGEN NEGATIVE INDIVIDUALS

Manzoor Ahmad,* M. Shuaib Quraishi* and Sarwar J. Zuberi**

Abstract

1200 persons were screened for the presence of asymptomatic liver disease: 29 showed elevated transaminases or hepatomegaly. They were negative for HBs antigen. The liver biopsy in these cases revealed evidence of hepatitis in 22% cases. These cases could be type A or type B hepatitis in which the antigen could not be demonstrated.

Introduction

Acute and chronic liver disease is widely prevalent in our country. Although jaundice is a common feature in many of these conditions, but in a large number of cases it is not present. These anicteric cases could constitute an important link in the epidemiology of hepatitis and cirrhosis.

We have been studying the prevalence of liver disease in asymptomatic population using elevation of transaminases, presence of HBs Ag and hepatomegaly as indices of liver involvement (Ahmad and Quraishi, 1975). A significant number of antigen negative individuals were found to show elevated transaminases or hepatomegaly. This report presents the laboratory and clinical features in this group.

Material and Methods

1200 apparently healthy individuals were examined for the presence of liver disease. 800 of them were new recruits who had reported for basic training in the training establishments of the Pakistan Armed Forces. The rest were service personnel, who had been in service for 1-10 years.

P.N.S. Shifa,* P.M.R.C. Research Centre, **Jinnah Post-graduate Medical Centre, Karachi.

These individuals were examined for the presence of hepatomegaly—10 ml blood was obtained. Those showing rise in transaminases or hepatomegaly were rechecked after 10 days. If the findings persisted, they were admitted after obtaining their consent for liver biopsy. Those showing the presence of HBs antigen were also admitted.

During the hospital stay, full history with special reference to history of jaundice, malaria, drug use and alcoholism was recorded. Liver function tests including serum bilirubin, alkaline phosphatase, SGPT, SGOT, Cephalin Cholesterol, thymol turbidity and serum proteins were done on admission and at weekly intervals.

Liver biopsy was obtained with Menghini technique. The patients were discharged from hospital after all the tests were normal.

Results

44 out of 1200 showed the presence of antigen (3.6%). A fairly large number had abnormal transaminases (Table I). Hepatomegaly was seen in only 2.

Table I: Transaminase Level in Apparently Healthy Individuals

Test	Number showing initial elevation	Number showing sustained elevation
SGOT	67 (5.5%)	28 (2.3%)
SGPT	97 (8.0%)	31 (2.5%)

29 persons who had sustained elevation or hepatomegaly but were antigen negative were admitted for further evaluation.

Clinical Features

All were symptom free. No history of alcohol use was elicited. History of fever, suggestive of malaria was present in 9 cases while three had suffered from jaundice presumably acute viral hepatitis.

Results of Laboratory Investigations

Liver function tests in this group are given in table II. The stool examination revealed the presence of worms in 8 (Hookworm 6: Ascaris 1: H. nana 1).

Table II: Liver Function Tests—(29 Cases)

Test	Number showing abnormal tests	Percentage
Bilirubin	0	—
Alkaline Phosphatase	8	27.5%
SGOT/SGPT	29	100%
Cephalin Cholesterol	12	41.3%
Thymol Turbidity	2	6.9%

Histological features

The histological changes were generally mild. The diagnosis in these cases is presented in table III.

Table III: Histological Diagnosis: 27 Cases

I. Viral Hepatitis	6
II. Non Specific Reactive Change	12
III. Histologically Normal	6
IV. Fatty Change	3

Follow Up

These cases were followed up for 6 months to one year. None of them revealed the presence of antigen on subsequent examinations. Jaundice was not seen in any of them.

Discussion

It is generally known that liver disease is widespread in Pakistan. Our study substantiates this belief. In addition to a large number of cases of overt hepatitis, a far larger number suffer from anicteric disease. Although the majority of these cases are due to Hepatitis B antigen, a significant number has failed to reveal its presence.

The etiological agents for antigen negative group may be varied. It is possible that a number of these cases may yet be due to Hepatitis B antigen. This is because of the fact that method used for antigen detection which was available to us was not very sensitive. If a better method like Radioimmunoassay had been available, some of these cases might have been found to be antigen positive.

The changes in group I were consistent with viral Hepatitis. The possibility that these cases represent at later stage of antigen positive Hepatitis cannot be ruled out. It is also possible that other Hepatitis producing viruses like type A or some yet unknown agent may be responsible.

The group II cases only showed non specific changes. They may be due to a number of hepatoxins of chemical or biological nature.

The fatty change seen in group III was mild. The patients in this group were otherwise healthy and not malnourished. The cause of fatty change in these cases could not be determined.

The last group did not show any histological abnormality. The possibility that some focal lesion was missed in these cases has to be kept in mind.

References

Ahmad, M. and Quraishi, M.S. (1975) Anicteric hepatitis in Pakistan: Incidence in apparently healthy males (Preliminary report). J.P.M.A., 25:108.