SUMMARY

BACKGROUND

Hepatitis B virus – induced chronic liver disease is a common problem in Zaria. Liver biopsy may not be possible at all times to follow fibrogenic progression of the disease. A non-invasive method of assessment is therefore needed to monitor the progression and to possibly plan further management before serious complications develop.

This study was undertaken to determine the predictive value of total platelet count and AST/ALT ratio in the development of Hepatitis B virus induced chronic liver disease in Zaria, Nigeria.

STUDY DESIGN/METHODS

Liver biopsy was done for 140 consecutive consenting patients attending the GIT clinic, GOPD clinic as well as those who are on admission for chronic hepatitis B virus infection in the medical wards of Ahmadu Bello University Teaching Hospital, Zaria, who fulfilled the inclusion criteria for this study. Their liver function tests and total platelet counts were done at the time of biopsy. Information from biodata, relevant history of illness, clinical findings, serology screening, clotting profile and abdominal ultrasound scan were used to assess fitness for biopsy. 140
age and sex matched healthy controls from Zaria environ with no evidence of CLD and who were HBsAg and HC antibody negative.

RESULTS

Mean total platelet count showed a strong but inverse relationship to fibrosis score of patients with hepatitis B related CLD with a gamma value of -0.979 and 0.000 level of significance, this is statistically significant. Mean serum albumin of the patient showed a weak but statistically significant inverse relationship to fibrosis score with a gamma value of -0.341 with a p value of .000 while the ratio of the mean AST/ALT showed only a weak relationship to fibrosis score which was not statistically significant at the gamma value of 0.165 and p value of 0.056.

There was no relationship between the mean of serum alkaline phosphatase and fibrosis score nor mean of total serum bilirubin and fibrosis score.

CONCLUSION

The mean total platelet count of chronic hepatitis B patients can predict the stage of liver fibrosis and may obviate the need for a liver biopsy to determine this where biopsy is not feasible.