CHRONIC HBV INFECTION: ASSESSMENT AND MANAGEMENT OF DISEASE IN A YOUNG ADULT CLINIC

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**Introduction** Chronic hepatitis B (CHB) is a dynamic disease process with patients moving between disease phases over time. The majority of young adults infected with CHB are exposed to the virus perinatally or in the early years of life. Despite this, the extent of liver disease in this group remains ill-defined, as are the indications and timing of treatment. The aim of this study was to elucidate the extent of liver disease in a cohort of patients identified for a newly established young adult viral hepatitis clinic.

**Methods** Only young adults who underwent liver biopsy for the assessment of CHB were included in the study. 70 patients (male=49), median age 26 (range 16–30), were examined. Data on ethnicity, BMI and eAg status were collated. Longitudinal data including viral load and ALT were recorded for 6–18 months prior to each patient undergoing liver biopsy. Normal ALT levels in the group were defined as; <30 IU/l males, <19 IU/l females in accordance with the Prati criteria. These clinical parameters were evaluated for their utility in predicting fibrosis stage (FS); fibrosis score 0–6, in accordance with the modified Ishak score. Disease severity in the young adult group, defined as FS, was compared with that reported in 51 consecutive CHB patients (>30 years), (male=45), median age 43 (range 32–71), undergoing liver biopsy for disease assessment.

**Results** 38/70 of the young adults were eAg positive; median ALT over the course of follow-up was 61 (range 11–1050). 14 were Caucasian, 38 Asian and 18 Afro-Caribbean. Median BMI was 22.7 (range 17.9–35.6). By univariate analysis male gender and eAg positive disease were significant in predicting more marked disease with a higher FS (p≤0.05), but abnormal ALT and non-Caucasians in particular demonstrated marked significance (p=0.0002 and p=0.001 respectively). When evaluating the level of liver disease in young adults compared with that found in the 51 older CHB patients, there was no statistical difference between the FS reported in the two groups, presence of fibrosis (p=0.93); presence of moderate to severe fibrosis (p=0.6), demonstrating a trend towards higher FS with older age. However, normal ALT over the course of follow-up in the young adult group, was significantly associated with no fibrosis (p=.001).

**Conclusion** These data highlight the importance of formal disease assessment in this age group, as comparable levels of liver fibrosis are present in young adults as in older patients. However, closer scrutiny with assessment of ALT according to Prati criteria may identify patients with milder disease. This study emphasises the advantages of a young adult clinic in providing greater focus on CHB in this age group, enabling the early and timely intervention with therapeutic options where indicated.

**Competing interests** None.

**Keywords** chronic hepatitis B (CHB), fibrosis, Prati criteria, young adults.