INIAN ASSOCIATION FOR STUDY OF THE LIVER

P-1
Wilson's disease — prognostic score. G Loganathan, CE Eapen, V Shankar, a George M Chandy, Dept of Gastrointestinal Sciences & *Biostatistics, Christian Medical College and Hospital, Vellore

 Aim: To assess the usefulness of prognostic score (Ref) to predict mortality in Wilson's disease. This score applied to western population has shown that the score of >6 predicts mortality despite any form of treatment and should be offered transplantation. This prognostic score needs to be validated in Indian population.

Materials and Methods: Analysis of 72 patients retrospective in 61 (1992 to 1996) and prospective in 11 (1998) was done. This score was applied in 54 patients; retrospective in 43 and prospective in 11. Prognostic score (ref) was used. The age range was from 2.5 to 52 years. The median age was 12 years. Male (43) female (29) ratio was 1:5:1. Receiver operating characteristic curve was used to derive the optimal cut off value that predicted mortality.

Results: Mortality was best predicted by score ≥8 (sensitivity 80%; specificity 82%). 13 out of 16 with score of ≥8 expired.

Conclusion: Prognostic score (Ref. 1) appears to well predict mortality in Wilson's disease in Indian population. Optimal cut off score is ≥8.


P-2
A reverse-amplification refractory mutation system (R-ARMS) based study to detect point mutation in HBV preco gene. Syed Naqui Kazim, 1,2 3 Seyed Elhestem Hassan, 1 Luqman Ahmad Khan, 2 Varsha Thakur, 1 Kakoli Banejee, 1 Shiv Kumar Sarin 1 . 1 Department of Gastroenterology, GB Pant Hospital, New Delhi; 2 Department of Bio-sciences, Jamia Millia University, New Delhi; 3 Tuakuythic Gene Expression Laboratory, National Institute of Immunology, New Delhi

Background: Mutation in preco gene leads to failure of HBcAg production, often due to G to A mutation at nucleotide position 1896 (W28) in the preco gene of HBV. We conducted this study with the aim of determining whether HBcAg positive (wild type) strains coexist with the preco mutant (HBcAg negative, HBV DNA positive) forms and to know how serology correlates with the mixed viral forms. We used reverse-amplification refractory mutation system (R-ARMS) PCR technique, which amplifies the DNA only if a point mutation exists.

Materials and Methods: Eight sera from biopsy proven chronic hepatitis patients, positive for HBsAg and HBV DNA by the diagnostic PCR, were selected for R-ARMS analysis and subsequent DNA sequencing. By R-ARMS technique, mutation at 1896 position was scored by de-

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signing the primer such that the last nucleotide at the 3' end was exactly complementary to the expected point mutation. To overcome possible problems of false negative by PCR artifact, control primer located upstream to the mutant primer was used which would necessarily generate a fragment of expected size. Under very stringent conditions of annealing, PCR was carried out and the amplified products were checked on agarose gel. For DNA sequencing, the preco/core region from nucleotide position 1766 to 2844 was amplified using 'pssp' (5' CTT TGT AC/TT AGG AGG CGT3') and 3' preco mutant (5'TTT GTT CCC AAC AAT AT3') as a forward and reverse primers, respectively, generating a fragment of 1079 bp size. The latter was purified and sequenced in an automated DNA sequencer.

Results: Six of the eight sera were HBcAg positive while two were negative. Control primers worked in all the eight samples while R-ARMS positivity was obtained in seven samples. Both the HBcAg negative patient sera were found to have G1896A mutation along with all the five HBcAg positive sera that showed the presence of G1896A mutation by R-ARMS PCR.

Conclusion: These results indicate that the (i) mutant and wild type viruses coexist very commonly in the Indian patients with chronic hepatitis B viral infection, (ii) serology alone cannot diagnose the patients with mixed viral infection, and (iii) R-ARMS PCR is a sensitive, specific and rapid means to diagnose mutant strains.

P-3
Ascites and spontaneous bacterial peritonitis in fulmi-
nant hepatic failure. Radhu K Dhiman, Govind K Maharia, Sanjay Jain a, Yogesh Chawla. Departments of Hepatology and Internal Medicine a, Postgraduate Institute of Medical Education & Research, Chandigarh 160 012

Background: Although presence of ascites has been reported in patients with fulminant hepatic failure (FFH), spontaneous bacterial peritonitis (SBP) has not been studied in a large group of such patients. Hence, the present study was conducted to evaluate the prevalence and prognostic significance of ascites and SBP in FFH patients.

Methods: Two hundred and ninety eight consecutive pa-
tients (mean age 32.9 ± 14.8 yr) with FFH were studied. There were 133 (44.6%) males and 165 (55.4%) females. Acute viral hepatitis accounted for 91.6% of the patients and were analysed in the present study.

Results: Ascites was clinically detected in 79 (28.9%) pa-
tients. The patients with ascites were older (p=0.005), had longer jaundice-encephalopathy interval (p=0.0000001), lesser grade of encephalopathy on admission (p=0.0000003) and a lower incidence of raised intracranial pressure on admission (p=0.0007). Patients with ascites had significan-tly lower serum albumin (p=0.021), alanine aminotransferase (p=0.0005), aspartate aminotransferase (p=0.00017)