P64 CENTRAL NERVOUS SYSTEM INVOLVEMENT IN PATIENTS WITH CHRONIC HEPATITIS C VIRUS INFECTION AND MINIMAL LIVER DISEASE

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Introduction Individuals with chronic HCV infection are frequently fatigued and have difficulties with tasks of complex attention, visual scanning and psychomotor speed, even in the absence of significant liver injury. However, the objectivity of these findings has been questioned. Observed alterations in neurometabolite concentrations on cerebral ^{1}H-MRS further supports evidence of CNS involvement. These changes in cognition and ^{1}H-MRS seem to persist despite successful anti-viral therapy but this has not been studied systematically. No information is currently available on possible EEG changes in this population which, if present, might provide an easily available objective marker of CNS involvement.

Aim The aim of this study was to characterise the EEG in HCV-infected patients with minimal liver injury in relation to treatment status and treatment responses.

Method The study population comprised 114 HCV-infected individuals (75 women: 39 men) of mean (range) age 52.0 (25–75) years with little or no liver disease; the majority of patients had been infected by contaminated blood or blood products; none was misusing alcohol nor on treatment with interferon or psychoactive medication at the time of the study. All patients underwent formal assessment of fatigue, depression and anxiety and extensive psychometric testing. EEGs were recorded on the same day as the neuropsychometric assessment; reference data were obtained from 137 age/gender-matched healthy controls. The EEG was defined as *'fast'* if the relative β power was >30% on the P3-P4 derivation.

Results The prevalence of fast EEG activity was significantly greater in the patients than controls 43% vs 15% ($p<0.0001$). Significant correlations were observed between the presence of fast EEG activity and impairments in specific psychometric tests but not with fatigue, depression or anxiety. These abnormalities were observed independently of HCV-RNA levels and treatment status (Abstract P64 table 1):

Abstract P64 Table 1

	Untreated (%)		Treated (%)	
Variable	RNA negative (n=9)	RNA positive (n=55)	RNA negative (n=11)	RNA positive (n=39)
Fatigue	78	56	73	72
Depression	67	22	36	26
Anxiety	67	33	36	36
Fast EEG	33	42	36	49

Conclusion Patients with HCV infection with little or no evidence of liver injury show impaired cognitive function and an excess of fast EEG activity independent of fatigue, depression and anxiety. These findings hold true even if the patients have cleared the virus, either spontaneously or following anti-viral treatment. These results could be indicative of an effect of cerebral HCV-quasispecies similar to that suggested in HIV-associated dementia.

P65 ORAL ANTI-VIRAL THERAPY SHAPING THE INDICATIONS FOR HEPATITIS B LIVER TRANSPLANTATION OVER 2 DECADES

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Introduction Hepatitis B virus (HBV) infection is a major cause of liver disease. Nearly 350 million worldwide have chronic infection and around 600 000 persons die each year from consequences of HBV. Liver transplantation (LT) is an excellent treatment for HBV-related cirrhosis and hepatocellular carcinoma (HCC). Oral-antiviral therapy is effective in suppressing HBV replication. Before the introduction of oral anti-viral therapy the indications for LT were mainly fulminant liver failure (FHF) and hepatic decompensation. However, with availability of effective oral antiviral medication, there has been a change in the indication for LT in HBV infected patients, and the largest proportion has well compensated cirrhosis with HCC.

Aim To analyse the indication and outcome of LT for HBV patients in our unit over 24 years.

Method Retrospective database analysis of HBV related LT from 1986 to 2010. Indications, demographics, viral load, co-infection, oral anti-viral therapy, and outcome were examined.

Results 121 patients with HBV were transplanted. 18 recipients were female, average age at time of transplant was 50. 36 were Asian, 8 were of African descent. Lamivudine prophylaxis for viral load suppression was usually used for those who were transplanted after year 1993 and median viral load pre-LT for this patient group was 10^3 (range 10^2–10^6) copies/ml. 58/121 had LT between 2000 and 2010, and 63 before 2000. 12.6% (8/63) had LT for FHF before year 2000, and only 7%(4/58) since 2000 ($p=0.2$). 14 (22%) transplanted pre-2000 and 31 (54%) post-2000 had HCC ($p<0.001$). Median pre-LT bilirubin was 57 mmol/l (pre-2000) vs 31 (post-2000) ($p=0.003$) and median pre-LT INR was 1.7 (pre-2000) vs 1.2 ($p<0.001$) but pre-LT creatinine was not significant between two groups. Three patients had regraft (1=HAT; 1=PNF; 1=recurrence). There were 9 deaths related to recurrent HBV in patients transplanted pre-2000 and 1 death in patients transplanted post 2000. There are three recurrent HCC pre 2000 and five recurrent HCC post-2000. The difference in survival between the two groups approaches statistical significance ($p=0.13$). 69 patients are alive, eight patients are followed abroad. All patients were treated with Lamivudine post-LT. Since 2000, Lamivudine was used in combination with Adefovir for 11 patients and Tenofovir for three patients pre-LT to suppress viral replication. One patient was on Entecavir pre-LT.

Conclusion There is a change in the indication for LT in HBV patients since the introduction of oral antiviral therapy. An increasing proportion has well compensated liver disease with HCC as the indication for LT.

P66 LOW PRE-TREATMENT PLASMA HBSAG LEVEL AND ITS DECLINE DURING ADD-ON INTERFERON TREATMENT PREDICT RESPONSE TO COMBINED LAMIVUDINE/INTERFERON THERAPY IN TOLERANT CHILDREN WITH INFANCY-ACQUIRED CHRONIC HEPATITIS B

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Introduction Changes in HBsAg plasma levels during antiviral therapy with pegylated interferon (IFN) predict response in adults