(IDU) and HCV antibody prevalence rates reach 60–90% in those who have injected drugs. Treatment rates of injecting drug users (IDU’s) with HCV are low at just 3–10% and although small studies indicate treatment of IDU’s is safe and effective, data on outcomes of antiviral therapy in current injecting drug users is limited with the largest study published to date including just 31 active IDU’s. It has been suggested that antiviral therapy for HCV use may reduce illicit drug use, but published data to support this is lacking.

**Aim** To assess the treatment outcomes and the impact of antiviral therapy on illicit drug use in injecting drug users (IDU’s) treated with antiviral therapy for Hepatitis C virus (HCV) by nurses based in community addiction services in North East London. The outcomes of the first 81 patients to be treated are presented here, 48 of whom were using illicit drugs at the start of treatment making this the largest cohort of active IDU’s with HCV treated with antiviral therapy that has been presented to date.

**Method** Methods consisted of a retrospective database analysis. Illicit drug use was quantified as 3 (heavy/daily); 2 (weekly/ moderate); 1 (monthly/occasional) and 0 (previous drug use). The Wilcoxon signed rank test was used for statistical analysis.

**Results** 81 patients were treated over a 48-month period from September 2004 to January 2009. 50 (62%) were genotype 2/3, and 31 (38%) were genotype 1. The average age of infection with HCV was 23, of diagnosis was 39 and of treatment was 41. Compliance with treatment was 88%. 65% of patients had a sustained viral response, 18% were non-responders and 10% discontinued treatment early due to side effects. 5 patients (6%) relapsed after successful treatment. Only 1 patient (1%) has been re-infected post treatment. 48 patients (60%) were actively using illicit drugs when HCV treatment was initiated. Data on pre and post treatment intravenous heroin use, crack cocaine use and alcohol use was available in 74, 40 and 21 patients respectively. Intravenous heroin use reduced from 41/74 patients (55%) to 27/74 (36%) (p=0.0033) after treatment, with daily use reducing from 16/74 (22%) to 7/74 (9%). Crack cocaine use reduced from 32/40 (80%) to 21/40 (53%) (p=0.0103) Alcohol use reduced from 15/21 (71%) to 13/21 (62%) (p=0.5775).

**Conclusion** Nurse led provision of antiviral therapy for HCV infected injecting drug users in community based clinics is effective, with sustained viral response (SVR) rates that compare favourably with published randomised controlled trials of pegylated interferon and ribavirin. 1 High rates of compliance are seen and re-infection rates are low, so concern over compliance and re-infection should not prevent treatment of injecting drug users. This study has shown for the first time that a significant reduction in illicit drug use occurs during and after antiviral therapy demonstrating a social benefit of treatment in addition to the known health benefits.

**REFERENCE**

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**P22**

**GALL BLADDER LENGTH ON ULTRASOUNDOGRAPHY AS A SCREENING TOOL IN IDENTIFICATION OF AUTOIMMUNE SCLEROSING CHOLANGITIS**

doi:10.1136/gutjnl-2011-300857a.22

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**Introduction** Autoimmune liver disease (AILD) in children encompasses Autoimmune Hepatitis (AIH), Autoimmune sclerosing Cholangitis (ASC) or, where there are features of both, overlap syndrome (OS). Differentiating between these entities requires cholangiography. The gold standard for the diagnosis of ASC is Endoscopic Retrograde Cholangiopancreatography which is invasive. Magnetic Resonance Cholangiopancreatography can be used as an alternative but is not universally available and may require anaesthesia in young children. Anecdotally, we have found increased gall bladder (GB) length on ultrasound to be a useful marker of bile duct involvement in AILD.

**Aim** Our aim was to study the role of ultrasound measurement of Gall Bladder length as a screening tool for identifying ASC in children with AILD.

**Method** Children, under the age of 18 years at the time of presentation, diagnosed with AILD were identified from the departmental database. Cases for whom a fasting ultrasound at the time of presentation, was available on our radiology department’s digital imaging system were included. Cases were categorised using established criterion into 2 groups; those with AIH and those with ASC with or without OS. A retrospective case notes review was performed on all eligible children, their ultrasound scans were reviewed by a single radiologist and GB length measured.

**Results** 50 cases were included. 52/50 (64%) had AIH type1 and 6/50 (12%) had AIH type2. 12/50 (24%) had ASC and 6/12 (50%) of these had OS. The average age at presentation was 10.18 years (range 1.3–16 years). The age at presentation was similar for both groups (AIH 10.1 yrs; ASC 10.2 yrs). Overall there were 22 males and 28 females but among the group with ASC there were 8 males and 4 females. The duration of symptoms before diagnosis was 5 months and was similar in both groups. The median (25th, 75th centile) GB length in children with ASC was 9.75 cm (7.2 cm, 10.6 cm) and in children with AIH was 6.8 cm (5.5 cm, 7.9 cm) [p value 0.0035]. The normal GB length in children older than 1 year is up to 7 cm. GB length >7 cm was seen in 9/12 (75%) children with ASC compared to 15/38 (39.5%) of children with AIH (p=0.04). GB length >9 cm was seen in 7/12 (58.3%) children with ASC and 4/38 (10.5%) children with AIH (p=0.005).

**Conclusion**

**Conclusion Summary** In AILD GB length is significantly increased in children with ASC. GB length >9 cm has 90% specificity for the diagnosis of ASC. GB length <7 cm is 88% exclusive of ASC.

**Conclusion** GB length measurement is a useful screening test for ASC in children with AILD. We would recommend a further study with greater number of patients.

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**P23**

**COMPARISON OF ENHANCED LIVER FIBROSIS TEST AND TRANSIENT ELASTOGRAPHY FOR THE NON-INVASIVE ASSESSMENT OF LIVER FIBROSIS IN CHRONIC HEPATITIS B**

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**Introduction**

The enhanced liver fibrosis (ELF) test comprises a panel of biomarkers of liver fibrosis shown to accurately assess fibrosis and...
Function is impaired in cirrhosis. Impaired BRS predicts death in control and baroreceptor sensitivity (BRS) acts as a composite Autonomic function is essential for blood pressure fi

The FRAX® score is a web-based tool incorporating clinical risk factors to predict the risk of osteoporotic fracture. Risk may be estimated without BMD, and re

*Significance of comparison of ELF and TE AUROC.

**P24**

PRESENCE OF IMPAIRED BARORECEPTOR SENSITIVITY IS A POOR PROGNOSTIC MARKER IN CIRRHOSIS

doi:10.1136/gutjnl-2011-300857a.24

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Introduction Autonomic function is essential for blood pressure control and baroreceptor sensitivity (BRS) acts as a composite marker of overall function. Both sympathetic and parasympathetic function is impaired in cirrhosis. Impaired BRS predicts death in cardiovascular diseases and chronic kidney disease.

Aim The aim of the present study was to assess the relationship between BRS and liver disease severity, systemic and portal haodynamics and mortality in cirrhosis.

Method Prospective study of 29 cirrhotic patients. Systemic haodynamics and BRS were assessed non-invasively using the Finometer.® Spontaneous BRS was calculated from the regression of pulse interval on systolic blood pressure. Portal pressure was assessed by measurement of the hepatic venous pressure gradient (HVPG). Gastroscopy assessed variceal size and 1-year probability of bleeding according to the NIEC index.

Results 20 male (69%), median age 47 years (42–55), Child-Pugh score 6 (Class A 18, B 10, C 1) and MELD 10 (8–13). BRS was impaired in cirrhosis (median 4.2 ms/mm Hg, IQR 2.5–6.2 ms/mm Hg) but was not related to Child-Pugh score or MELD. Significant differences in BRS were seen with respect to gender (Female 2.0 ms/mm Hg vs male 5.8 ms/mm Hg, p = 0.0125), presence of varices (present 3.8 ms/mm Hg vs absent 3.3 ms/mm Hg, p = 0.0206), and ascites (ascites 2.0 ms/mm Hg vs no ascites 5.3 ms/mm Hg, p = 0.0433). No significant differences in BRS were seen according to alcohol intake. A significant negative correlation was seen between BRS and age (r = -0.46, p = 0.0130), heart rate (r = -0.56, p = 0.0015), HVPG (r = -0.69, p = 0.0001) and 1-year probability of varical bleeding (r = -0.43, p = 0.0199). Over a median follow-up of 710 days, 8/29 (27.6%) patients died with median time to death 854 days. Mortality was significantly higher in patients with HVPG greater than or equal to 10 mm Hg than without clinically significant portal hypertension (p = 0.0024) and with a MELD score greater than or equal to 17 (p<0.0001). When stratified according to BRS (less than, or greater than or equal to 6 ms/mm Hg), mortality was significantly higher in patients with more severe impairment (<6 ms/mm Hg) than with preserved BRS (55% vs 12.5%, p = 0.0054) despite no significant difference in Child-Pugh score, MELD, systemic haodynamics, HVPG or length of follow-up. Patients with impaired BRS had significantly higher probability of varical bleeding, and were more likely to have ascites (24% vs 0%).

Conclusion BRS is not related to liver disease severity as assessed by Child-Pugh or MELD but a significant inverse correlation exists between BRS and HVPG. Compared to patients with preserved BRS, patients with significant impairment of BRS have a higher mortality, a higher probability of varical bleeding and are more likely to have ascites. Impairment of BRS appears to be a poor prognostic factor independent of liver disease severity or portal pressure, possibly relating to a failure to respond to the haemodynamic challenges associated with complications in cirrhosis.

**P25**

FRAGILITY FRACTURE RISK IN CIRRHOSIS: A COMPARISON OF THE FRACTURE RISK ASSESSMENT TOOL (FRAX®), BSG AND NICE GUIDELINES

doi:10.1136/gutjnl-2011-300857a.25

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Introduction Bone mineral density (BMD) is common in patients with chronic liver disease, and tends to be related to the severity rather than aetiology of cirrhosis. BMD alone correlates modestly with fragility fracture. The BSG recommend DXA scanning all cirrhotic patients. NICE guidelines apply only to postmenopausal women.

The FRAX® score is a web-based tool incorporating clinical risk factors to predict the risk of osteoporotic fracture. Risk may be estimated without BMD, and refined with DXA. Pre-BMD FRAX®
P23 Comparison of enhanced liver fibrosis test and transient elastography for the non-invasive assessment of liver fibrosis in chronic hepatitis B

P M Trembling, P Lampertico, J Parkes, S Tanwar, M Viganò, F Facchetti, M Colombo and W M Rosenberg

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