Abstracts

P73 'HEPATIC SARCOID: UK EXPERIENCE IN OUTCOMES FOR ORTHOTOPIC LIVER TRANSPLANTATION FOR ADULT GRANULOMATOUS LIVER DISEASE'

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Introduction Sarcoïdosis is an autoinflammatory granulomatous disease of unknown aetiology most commonly presenting with lung or intrathoracic involvement. However, hepatic sarcoidosis is increasingly recognised and seen in 12–20% of cases, a quarter of whom will develop liver cirrhosis and is a rare indication for liver transplantation.

Genetic factors, environmental triggers and a dysregulated immune system are thought to be involved in the development of sarcoidosis and the characteristic sterile, well circumscribed, non-caseating epithelioid granulomas seen in hepatic sarcoidosis.

The long-term transplantation outcomes in this patient cohort have not been previously investigated in the UK. We present unpublished data from the UK Transplant registry on outcomes in hepatic sarcoidosis.

Patient remained well until the age of 21 when he presented with cholestatic liver enzyme derangement, ascites and weight loss. Imaging suggested portal hypertension and a liver biopsy revealed epithelioid granulomas with no central necrosis and multinucleate giant cells with peri-venular and peri-portal fibrosis. Chronic liver screen and mycobacterial testing was negative. Around this time his daughter developed polyarthritis, uveitis and hepatosplenomegaly at the age of 4 years. She was diagnosed with Blau syndrome after genetic testing revealed the hitherto unreported pathological variant, c.1471A>C, p.(Met491Leu), in the NOD2 gene. Genetic testing confirmed the presence of the same mutation in her father, consistent with a diagnosis of Blau syndrome.

At the age of 31, despite selective immunotherapy he developed cirrhotic complications including recurrent oesophageal bleeding and spontaneous bacterial peritonitis. He was accepted onto the liver transplant waiting list and subsequently received a Donation after Circulatory Death (DCD) graft in March 2019. Progress following transplantation was satisfactory and immunosuppression consisted of Tacrolimus, Azathioprine and Prednisolone.

Three months later he was treated for septic complications from ischemic cholangiopathy. Imaging revealed a degree of hepatic artery stenosis and bile duct stricturing, thought to be ischemic in nature. He underwent liver biopsy which showed biliary features as well as focal portal and lobular non-necrotizing granulomatous inflammation identical to that seen in his native liver explant, thus in keeping with disease recurrence in his graft. Following his initial grafting he is awaiting re-transplantation.

Conclusion Review of Antibody Therapies in Blau Syndrome

Of 84 Blau patients treated with antibody therapy, 5 hepatic cases responded to anti-TNF therapy, with promising results if instigated before decompensation occurs.

P74 HEPATITIS C VIRUS HIGH INTENSITY TEST AND TREAT HMP LEEDS

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Method Prior to testing commencing a publicity campaign was conducted by peers within the prison and prisoners were incentivized to be tested by providing chocolate bars and telephone access cards. Over the course of a weekend period in July 2019 an attempt was made to test all inmates in the prison for HCV, Hepatitis B (HBV) and Human Immunodeficiency Virus (HIV) with a point of care Matrix test. Positive antibody tests were further tested with capillary blood PCR tests performed in the local laboratory with test result turnaround of 24 hours. Prisoners testing PCR positive were immediately informed of the diagnosis and a review of their current drug history made to check for drug drug interactions.

If a genotype was already known they were treated with an appropriate genotype specific drug or if no genotype was available they were treated with the pan-genotypic drug Mavirec®.

Results In the UK, 30 patients have been listed for liver transplantation due to hepatic sarcoidosis in the last decade. 18 patients received a liver transplant, 14 of whom are still alive today. Four patients died whilst on the waiting list. The median age and mean United Kingdom Model for End Stage Liver Disease (UKELD) score at time of listing were 51.0 years (± 10.3 years) and 56.0 (± 4.2), respectively. The median patient survival was 1091 days, with both the 1- and 3-year patient survival being 89%. Graft failure occurred in 4 of the transplanted cases, and of these cases one was a result of recurrent disease, and another a result of biliary tract stenosis. In total 6 cases of sepsis were observed in the transplanted cohort. Details on the causes of death were unavailable.

Conclusion Hepatic sarcoid is a rare indication for liver transplantation. NHSBT data between 2008 and 2019 shows that patient survival for liver transplant recipients with this condition in the UK was satisfactory in the short to medium term. US data between 1987 and 2007 suggested 1- and 5- year patient survival of 78% and 61% respectively, which is worse than the UK outcomes, but might reflect recent advances in the field. Although not common, recurrent sarcoidosis in the donor liver does occur and may respond to increased immunosuppression. Graft failure due to disease recurrence was observed in one case in the UK cohort.
Results 1022 prisoners were in HMP Leeds during the course of the testing weekend. 757 prisoners were tested but 47 refused to be tested and 218 could not be accessed within the prison to be tested. Only 1 prisoner with HIV and 1 prisoner with HBV were identified and these were already known to treatment services. 59 of 757 tested prisoners were HCV antibody positive (7.8%) and 36/757 (4.8%) were PCR positive. 9/36 were already on or about to start treatment and 8/36 were released or transferred to another prison in the week between testing and commencing treatment. One prisoner died during this period. 28 patients (19 new and 9 known) started treatment. 19/28 (68%) achieved SVR12, 1 non-responder, 2 yet to reach 12 weeks post treatment and 6 were lost to follow up. Conclusion HITT is an effective approach to micro-eliminate HCV in prisons. Not all prisoners identified by this program are new diagnoses. Due to the high throughput of prisoners it is essential that treatment is commenced immediately after diagnosis or prisoners may be lost to follow up.

**P75 INCREASING FEMALE STREET SEX WORKER ACCESS TO HEPATITIS C TESTING AND TREATMENT IN LEEDS**

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**Background and Aims** Female Street Sex Workers (FSSWs) have high rates of substance misuse and sexually transmitted infections, which are key contributors to the increased incidence of HCV infection seen in this population. If the WHO target to eliminate HCV is to be met, this group will require specific test and treat strategies. Two local charities (The Joanna Project and Basis Yorkshire) who work closely with FSSWs were identified to work with during the project. A previous survey had identified that venepuncture and travelling to healthcare facilities were significant barriers to accessing testing and treatment for HCV. The aim of the study was to improve access to treatment for FSSWs without the need for direct engagement with health services.

**Method** Over a 12 weeks period in 2018 FSSWs working in Leeds were approached in support facilities/charity premises and offered counselling and dry blood spot HCV antibody testing with subsequent capillary blood PCR testing in the local laboratory. Any patient testing PCR positive was offered pan genotypic HCV treatment with sofosbuvir/velpatasvir (Epclusa®) within the charity premises after checking for drug drug interactions with their prescribed and non-prescribed medication.

**Results** 46 FSSWs were tested during the 12 week period. 22/46 (47.8%) of those FSSWs tested were HCV antibody positive and 18/46 (39.1%) were HCV PCR positive indicating very high prevalence rates in line with their known high risk behaviour. Of those 18 PCR positive patients all commenced treatment with 12 weeks sofosbuvir/velpatasvir (Epclusa®). Fifteen completed treatment and three were lost to follow up whilst on treatment. One of those three has now recommenced treatment 6 months later. Of the fifteen completing treatment five are lost to follow up and all ten still in follow up achieved SVR12.

**Conclusion** FSSWs have a very high prevalence of HCV PCR positivity but are willing to be treated for HCV if this service is provided outside of a healthcare centre and does not involve venepuncture. Following up this group post treatment to ensure cure and reduce risks of reinfection is also likely to be a challenging despite ongoing support and education in the charity sector.

**P76 EFFECTIVENESS OF ADVICE BASED ON LIVER DISEASE DIAGNOSTIC TESTS ON MANAGING HIGH RISK DRINKING BEHAVIOUR IN PATIENTS WITH ALCOHOL MISUSE: A SYSTEMATIC REVIEW WITH META ANALYSIS**

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**Background and Aims** Alcohol dependence is cause of major public health concern and a growing global pandemic affecting over 240 million people worldwide and attributed to 3 million deaths annually. Early identification and intervention is key to prevent future harm. There is established evidence from other specialties on usefulness of biofeedback based on investigations or severity of disease in modifying patient high risk behaviour, but this practice is lacking in alcohol misuse service. We aim to systematically review published literature on effectiveness of adding advice based on liver disease diagnostic tests or marker of liver injury to decrease alcohol consumption and/or to prevent alcohol misuse.

**Methods** The protocol was registered on Prospero (CRD42020164183). A systematic search strategy was developed, and an electronic search was conducted across Ovid Medline, PubMed, EMBASE, Psycinfo and CINAHL from inception to end February 2020. Additionally, we searched: citations of included studies, Scopus conferences proceeding, Ethos for grey literature and Clinicaltrials.gov. Primary outcome measures included change alcohol use and gamma glutamyl transferase (GGT). A random effect metaanalysis was performed in Cochrane Review manager (version 5.3). The risk of bias was assessed using Cochrane risk of bias assessment tools and quality of studies was assessed by GRADE system.

**Results** 20 papers of 14 randomised controlled trials (RCT) and two observational studies comprising n=3763 participants were included. The weighted mean average difference for weekly alcohol intake between intervention and comparison group was -74.4 gram/week (95%CI -126.1, -22.6) (p=0.005), and for GGT was -19.7 IU/L (95% CI -33.1, -6.4) (p=0.004). There was higher incidence of alcohol attributed mortality, number days spent in hospital, physician visits and sickness absence in non-intervention group. The quality of included studies was moderate for RCT’s and high for observational studies.

**Conclusions** The review confirmed a significant association between addition of advice based on liver disease diagnostic tests or marker of liver injury in routine care in the reduction or/and abstinence of alcohol consumption, GGT and alcohol related mortality. This supports the integration of such interventions into alcohol misuse services.