patients who may benefit from second line therapy with OCA. Such cases can be identified through simple audit of UDCA dosing and biochemical response.

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P188 THE PROGNOSTIC VALUE OF THE FRACTIONAL EXCRETION OF UREA IN PATIENTS WITH CIRRHOSIS

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Introduction The development of acute kidney injury (AKI) in cirrhosis is associated with a poor outcome. Patidar et al, 2018 proposed the fractional excretion of urea (FeUrea) to distinguish pre-renal and hepatorenal syndrome from other causes of AKI in cirrhosis. However its prognostic significance out with AKI is unknown.

Aim To assess the associations of FeUrea with liver and renal function and survival in patients with cirrhosis.

Methods Patients with cirrhosis whose urine electrolytes had been assessed in the Gastroenterology wards at Glasgow Royal Infirmary between January 2016 and August 2019 were identified retrospectively. Contemporaneous blood tests were recorded. For outcome assessment the earliest urine electrolyte sample was recorded and subsequent samples within 90 days excluded. Pearson coefficient (r) was calculated for correlation. Cox proportional-hazards regression was used for multivariate analysis of variables related to outcome, and Kaplan-Meier analysis for survival analysis.

Results In total 265 samples were analysed from 157 individuals. FeUrea correlated with markers of inflammation (CRP: r=-0.297; p<0.0001), renal function (creatinine: r=-0.193; p=0.002) and liver function (MELD: r=-0.124; p<0.04). 178 samples were suitable for outcome analysis; 29 (16.2%) had AKI at the time of assessment. 90-day survival was 41.4%, 61.4% and 70.5% for those with FeUrea <21.3%, 21.3–33.4% and >33.4% respectively (p=0.006). On multivariate analysis albumin (p=0.0002), bilirubin (p=0.04), creatinine (p=0.01), FeUrea (p=0.0001) and white cell count (WCC: p=0.02) independently predicted 28-day survival but only FeUrea (p=0.04) and WCC (p=0.02) predicted 90-day survival. MELD and presence of AKI were not independently related to outcome.

Conclusion FeUrea was associated with markers of inflammation and liver dysfunction in patients with cirrhosis. FeUrea was predictive of survival independently of MELD and AKI. The categorisation of patients by FeUrea identified those with a poor 90-day outcome.

P189 ROLE OF HIGH INTENSITY FOCUSED ULTRASOUND (HIFU) IN TREATING CANCEROUS LESIONS OF THE HEPATOBILIARY SYSTEM

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Aims High intensity focused ultrasound (HIFU) is an emerging non-invasive, targeted treatment of malignancy. This review aims to explore the efficacy, safety and optimal technical parameters of HIFU to treat cancerous lesions of the hepatobiliary system.

Methods A systematic search of the English literature was performed until December 2018, interrogating Pubmed, Embase and Cochrane Library databases. The following key-words were input in various combinations: 'HIFU', 'High intensity focussed ultrasound', 'Hepatobiliary', 'Liver', 'Cancer' and 'Carcinoma'. Extracted content included: Application type, Exposure parameters, Patient demographics, and Treatment outcomes.

Results Twenty-two articles reported on the clinical use of HIFU in 845 individuals to treat cancerous liver lesions. Nineteen series detailed the use of HIFU to treat hepatocellular carcinoma. Mean tumour size was 5.1 cm. Across all studies, HIFU resulted in complete tumour ablation in 51.68%. Data on technical parameters and the procedural structure was very heterogeneous. Eight studies described the use of HIFU alongside other modalities including TACE, RFA and PEI; 58.72% of which resulted in complete tumour ablation. Most common complications were skin burns(17.16%), local pain(5.56%) and fever(1.42%).

Conclusions HIFU is a safe and well-tolerated treatment modality for cancerous lesions of the hepatobiliary system. Combining HIFU with other ablative therapies, particularly TACE, increases the efficacy without increasing complications. Future human clinical studies are required to determine the optimal treatment parameters, better define outcomes and explore the risks and benefits of combination therapies.

P190 PROOF OF CONCEPT & NOVEL TECHNIQUE OF CELL HARVEST USING HISTOTRIPSY: IMPLICATIONS IN CELL TRANSPLANTATION

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Introduction A potential alternative to liver transplantation is allogenic hepatocyte transplantation, particularly for metabolic disorders. However, some significant hurdles mainly concerned shortage of donor organs, low cell yield as well as lack of long-standing effect needs to be overcome to widen its clinical application. Here we describe an improved technique in cell harvest and isolation.

Methods Pig livers were obtained using organ retrieval techniques and perfused with Soltran solution following a period of cold storage. Perfused livers were subjected to High-Intensity Focused Ultrasound (HIFU), and lesions were incised. Core liquified suspension was sampled and cultured in RPMI cell culture medium. Cell cultures were analysed at 1, 3 and 7 days for viability. H&E staining performed to characterise the lesions.

Results Four different livers were used, and more than 50 lesions created. HIFU created a subcapsular lesion with a core suspension of cells. Adult hepatocytes extracted from core lesion are alive at day 1 and remain alive in culture medium