compared to 18 gauge needle. Despite being a larger bore needle, it is not associated with an increased rate of complications. We recommend using 16 gauge co-axial needles routinely for percutaneous liver biopsies.

Disclosure of Interest None Declared.

REFERENCES

1. Guidelines on the use of Liver Biopsy in Clinical Practice: 2004. British Society Of Gastroenterology: (www.bsg.org.uk)
2. Tissue pathways for liver biopsies for the investigation of medical disease and for focal lesions: G064, May 2008, The Royal College of Pathologists
3. Liver Biopsy :AASLD position statement : Don C. Rockey, Stephen H. Caldwell, Zachary D. Goodman, Rendon C. Nelson, Alastair D. Smith;HEPATOLOGY, Vol. 49, No. 3, 2009

PWE-121 COMPARISON OF KINGS SCORE, APRI AND AST/ALT RATIO IN DETERMINING SEVERITY OF LIVER DISEASE VERSUS LIVER BIOPSY

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Introduction Background and Aims Non-invasive markers of liver fibrosis are used to stratify the severity of Liver disease. The aim of the study was to compare the accuracy of the AST/ALT ratio, AST-platelet ratio index (APRI), and the Kings score in determining significant liver disease using liver biopsy as the reference standard.

Methods A retrospective analysis of patients presenting for liver biopsy at the South West liver unit was reviewed. All patients had routine demographic, biochemical and haematological parameters collected including: aspartate aminotransferase (AST), alanine aminotransferase (ALT), platelets, international normalised ratio (INR) and patient age. The quality of the liver biopsy specimen was recorded including sample length, fragments, and number of portal tracts. Liver biopsy fibrosis was staged using the Ishak score. Non-invasive tests were assessed in their ability to correctly identify significant fibrosis (Ishak stage ≥ F3) or cirrhosis (Ishak Stage ≥F5). The scores were calculated as follows: AST/ALT; APRI = ((AST/AST upper limit of normal))/(Platelets) x100, and Kings score = (AST x Age x INR)/platelets. The accuracy of each test was compared to the reference standard using area under the receiver operated characteristic curve (AUROC).

Results 170 patients were identified. 130 patients had complete data to calculate the scores. The median age 56 years (IQR 45–65), 55% patients were male. Numbers of patients by disease were: autoimmune hepatitis n = 23 (18%), PBC n = 3 (2.3%), PSC n = 2 (1.6%), Fatty Liver disease n = 24 (19%), ALD n = 26 (20%), HCV n = 12 (9.3%), Others n = 40 (30%). The median biopsy length 20mm (17 – 26), portal tracts 9 (5 – 13), biopsy cores 2 (1 – 2). AUROC for significant fibrosis (≥ F3) : AST/ALT = 0.84 (0.77 – 0.91), p = < 0.0001, Kings Score = 0.73 (0.64 – 0.83), p < 0.0001, APRI = 0.69 (0.60 – 0.79), p < 0.0001. AUROC for cirrhosis (≥ F5): AST/ALT = 0.82 (0.75 – 0.90), p < 0.0001, Kings Score = 0.71 (0.61 – 0.80), p < 0.0001, APRI = 0.66 (0.57 – 0.76), p < 0.0001.

Conclusion Conclusions: The AST/ALT ratio had the greatest diagnostic accuracy in determining significant fibrosis or cirrhosis. The Kings score performed better than APRI. AST/ALT is a simple guide to determine significant fibrosis and cirrhosis in liver disease.

Disclosure of Interest None Declared.

PWE-122 PARALLEL TIPSS FOR THE MANAGEMENT OF SHUNT INSUFFICIENCY IN PATIENTS WITH COMPLICATIONS OF PORTAL HYPERTENSION: A TERTIARY LIVER UNIT 19 YEAR EXPERIENCE

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Introduction Transjugular Intrahepatic Porto-Systemic Shunts (TIPSS) insufficiency can be addressed with a side placement of another TIPSS beside the original ("parallel" technique) thus improving portosystemic pressure gradient (PPG). There is a paucity of data assessing the efficacy of this technique.

The Aim of this study was to assess the efficacy of parallel TIPSS in a large UK tertiary referral centre.

Methods A retrospective study was performed from patient electronic databases. Parallel TIPSS were performed over a 19 year period.

Results 11 patients (8M:3F) were identified (2% of all TIPSS procedures). Mean age at time of parallel TIPSS was 48.6(+/-13.7). Background aetiology of portal hypertension included: 5 ALD, 2 PSC, 2 PBC, 1 liver graft failure, 1 NCPH**.** Indications for index TIPSS (5 covered stents) were: 4 Oesophageal variceal (OV) haemorrhage, 3 gastric variceal (GV) haemorrhage, 1 stromal variceal haemorrhage and 3 for refractory ascites. At time of 1st TIPSS, documented mean PPG was 16.6(+/-7.71) and post TIPSS 10.8(+/-7.35) mmHg. Median time between index TIPSS and parallel TIPSS insertion was 72 days (IQR 4–1122 days). Prior to parallel stent placement, 7 patients had dilatation of the index TIPSS.

At parallel TIPSS, the mean initial PPG was 16.0 (+/-7.40)/post procedure 6 (+/-2.28) mmHg. 63% had covered stent as the parallel TIPSS. One patient had transient encephalopathy, but no other complications were encountered. Nine patients had a resolution in symptoms. One patient had ongoing GV bleeding requiring Thrombin injection and 1 patient had ascites with no flow in parallel TIPSS 4 days post-procedure. Secondary patency was 82% with a median number of interventions of 1.5 (IQR 1–3).

Median follow-up was 30 months (range 0.5–120). 92% patients were alive at 1 month with 86% 1 year survival. Two patients were transplanted during follow-up.

Conclusion Parallel TIPSS is a safe and effective method to treat TIPSS insufficiency. The majority of patients not only had a good haemodynamic result, but also resolution of symptoms.

Disclosure of Interest None Declared.

PWE-123 PREDICTORS OF HEPATIC ENCEPHALOPATHY AND MORTALITY FOLLOWING TIPS INSERTION FOR REFRACTORY ASCITES

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Introduction Transjugular intrahepatic portosystemic shunt (TIPS) insertion has been used for over twenty years to treat the complications of portal hypertension. TIPS insertion provides better control of refractory ascites than large volume paracentesis but with a higher risk of developing hepatic encephalopathy (HE). In addition, a survival benefit has only been found in carefully selected patients. The aims of this study were to review the use of TIPS for the treatment of refractory ascites, in a single centre, over a twenty-year period with the aim of identifying factors predictive of the development of HE and survival.

Methods All patients who underwent TIPS for refractory ascites in the Royal Free Hospital, London, between 1992 and 2012 were reviewed. All non-transplanted patients still alive in 2012 were recalled for assessment of their neuropsychiatric status using clinical, neuropsychometric and neurophysiological criteria. The factors associated with the development of post–TIPS HE were determined by multivariate analysis using the Cox proportional regression model. Differences in survival were determined by Kaplan-Meier analysis.