Results Of 253 RRT+ patients, 22% survived ICU and 13% survived hospital. Of 225 RRT⁻, 81% survived ICU and 59% survived hospital (p. On day 1 of admission, RRT+ had a higher prevalence of systemic inflammatory response syndrome (76% vs 62%), Child-Pugh (12 vs 11), MELD (32 vs 17) and SOFA scores (13 vs 11) (pEven when the renal component was removed from the SOFA score (SOFAminusRENAL), RRT+ had higher scores than RRT- (9 vs 7) (p. 23% of RRT + commenced RRT after day 3 of admission; this did not affect ICU or hospital survival compared to those that commenced RRT before day 3. RRT+ survivors required less ventilation (39% vs 93%) and vasopressors (52% vs 89%) than RRT + non-survivors and had lower Child-Pugh (12 vs 13), SOFA (12 vs 14) and SOFAminusRENAL (8 vs 10) scores (p=1 of admission. 23 patients required RRT but no other organ support, 18/23 (78%) survived to ICU discharge and 11/23 (48%) to hospital discharge. **Conclusion** The extent of MODS, rather than requirement of RRT per se, dictates poor prognosis in cirrhotics needing RRT in ICU. Requirement for RRT should not preclude admission to ICU, rather, prognostication should take into account other elements of MODS; in particular a concomitant requirement for circulatory and respi-

Competing interests None declared.

ratory support.

PWE-276 | VALIDATION OF FIBROSCAN AS A SCREENING TOOL FOR CYSTIC FIBROSIS ASSOCIATED LIVER DISEASE IN AN **ADULT POPULATION**

doi:10.1136/gutjnl-2012-302514d.276

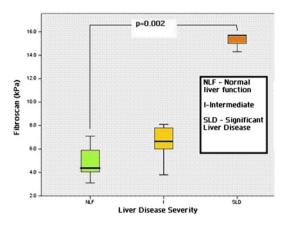
¹R E Swann,* ¹Z Mustafa, ²E Ross, ¹M Priest. ¹Department of Gastroenterology, NHSGGC Gartnavel General Hospital, Glasgow, UK; ²Department of Respiratory, NHSGGC Gartnavel General Hospital, Glasgow, UK

Introduction Cystic fibrosis (CF) associated liver disease affects up to 41% of CF sufferers and may progress to cirrhosis with associated complications. Diagnosis is frequently made without biopsy. A recent study evaluated the use of fibroscan in diagnosis of CF associated liver disease (CFLD) in the paediatric context, however there are now many adult patients with cystic fibrosis, therefore we aimed to validate the ability of fibroscan to assess liver disease severity in an adult CF population.^{2 3}

Methods We recruited a cohort of adult CF patients diagnosed in the paediatric setting with CFLD and a control cohort with CF but no clinical or biochemical evidence of liver disease. All patients were assessed for clinical, radiological or biochemical evidence of liver disease by the authors and underwent a fibroscan. Fibroscan results were correlated with clinical evidence of liver disease.

Results We recruited 20 patients, 11 with normal liver biochemistry, no clinical evidence of liver disease and normal liver ultrasound scans (NLF group) and nine with a historical diagnosis of CF associated liver disease. Six of these had abnormal liver function tests but no clinical, radiological or endoscopic evidence of cirrhosis (Intermediate—I) and three patients had significant liver disease with evidence of portal hypertension at endoscopy (SLD). Correlation of fibroscan result with clinical group was performed. The difference between the SLD group and the NLF group was significant (p=0.002) by the Mann-Witney U test. A ROC analysis suggested a cut-off of 11.2 kPa for cirrhotic CFLD as having the highest accuracy. However this requires further validation with a larger cohort of patients. There was strong correlataion of fibroscan reading with APRI score with an R² value of 0.757.

Conclusion Fibroscan correlates well with clinical assessment of CFLD severity in our cohort of adult CF patients and may help clarify diagnosis. We continue to recruit patients and hope to determine appropriate cut-off values for further investigation.



Abstract PWE-276 Figure 1 Fibroscan (kPa) by liver disease severity.

Competing interests None declared.

REFERENCE

- Lamireau T, Monnereau S, Martin S, et al. J Hepatol 2004;41:920-5.
- 2 Witters P, De Boeck K, Dupont L, et al. J Cyst Fibros 2009;8:392-9.
- Leonard A, Menten R, Clapuyt P, et al. J Cyst Fibros 2008;7(Suppl 2):S82.

PWE-277

FRACTURE PREVALENCE AND VITAMIN D STATUS IN PRIMARY BILIARY CIRRHOSIS: THE LEICESTERSHIRE **EXPERIENCE**

doi:10.1136/gutjnl-2012-302514d.277

¹R Krishnamoorthy, * ²A Grant, ³P Sheldon, ²T Delahooke. ¹Digestive Diseases Centre, University Hospitals Leicester NHS Trust, Leicester, UK; ²Department of Hepatology, University Hospitals Leicester NHS Trust, Leicester, UK; ³Department of Rheumatology, University Hospitals Leicester NHS Trust, Leicester, UK

Introduction Metabolic bone disease is a recognised complication in Primary Biliary Cirrhosis (PBC) and increases the risk of developing fractures. Although osteoporosis is the major contributor, Vitamin D (25- hydroxy- vitamin- D3) deficiency due to fat-soluble vitamin malabsorption is also a contributing factor for bone disease in PBC. Our objective was to assess the prevalence of fractures and vitamin D deficiency in PBC patients.

Methods Patients with diagnosed with PBC between the years 1994 and 2011 were retrospectively identified from the hepatology outpatients. Fracture data were collected from the x-ray reports in the radiology software. Biochemical data including AMA titres and Vitamin D status were retrospectively identified and entered using the pathology database. The grading for Vitamin D levels were as follows: severely deficient- 20 mg/l or >50 nmol/l. Available Bone Mineral Density (BMD) data in patients who had a Dual-emission x-ray absorptiometry (DEXA) scan was studied.

Results Among 209 patients (179 female, median age 68 years, 168 AMA positive with median AMA titre of 1 in 256) with PBC, 27 patients (12.9%, 25 females, median age 74) had sustained a fracture during their clinical course. 33 fracture episodes were identified. Femur/hip fractures were the commonest (9/33, 27%), followed by hand (5/33, 15%). DEXA scans were performed in 39 patients, with a median T score of -2.2. Vitamin D levels were available in 91 patients (44%), the levels being adequate in only 27 patients (29.6%), reflecting the magnitude of the Vitamin D status. 38 patients were insufficient (41.7%), 17 were deficient (18.6%) and 9 were severely deficient (0.09%).

Conclusion Fracture prevalence and vitamin D deficiency is high in PBC patients. Assessing Vitamin D status is a useful measure to improve bone health and reduce the burden of metabolic bone disease.