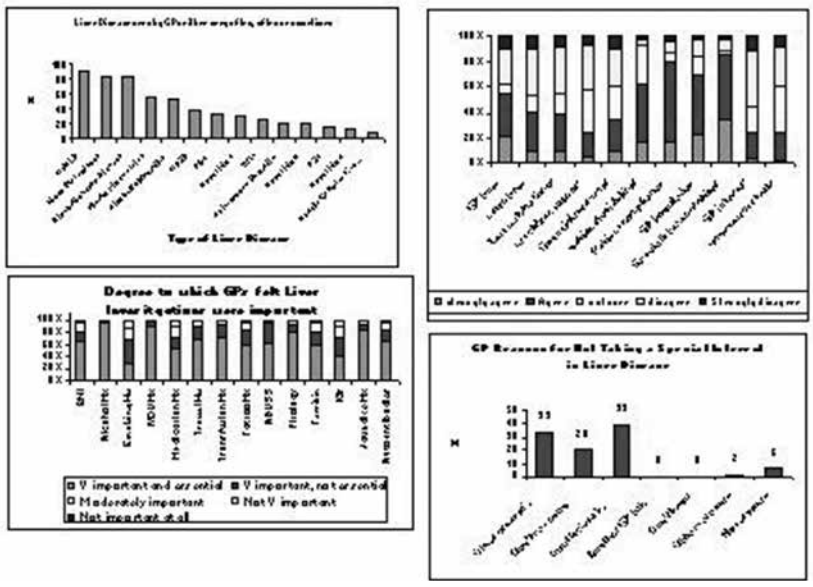

Abstract PTU-098 Figure

Graph 2 – The degree to which GPs felt liver investigations were important in the clinical management of liver disease in primary care.

For investigations that GPs graded as 'Very Important and Essential' many were not, in 'real-life' primary care practise, documented in patient records (Williams et. al. 2012).

Graph 3 – The degree to which potential barriers might influence GP capacity to manage liver disease in primary care.

Only 6% of GPs stated they had a 'special interest' in liver disease and no GP stated that someone else in the practise took the lead on liver disease.

Graph 4 – Reasons for GPs not having a 'special interest' in liver disease

However, as 'generalists', 83% of GPs felt they needed more educational support via protected learning sessions, improved national guidelines and joint specialist-GP clinics.

Conclusion This survey revealed that many GPs, despite not having a 'special interest' in liver disease, would welcome greater educational support from specialists and improved national guidelines. The barriers most cited as influencing GP capacity to manage liver disease are surmountable and should be the focal point for new integrated care pathways.

Disclosure of Interest None Declared

PTU-099 DISCOVERY OF POTENTIAL PLASMA BIOMARKERS OF CHOLANGIOCARCINOMA UTILISING SURFACE-ENHANCED LASER DESORPTION/IONIZATION TIME-OF-FLIGHT MASS SPECTROMETRY (SELDI-TOF MS)

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Introduction Cholangiocarcinoma (CC) is a malignant neoplasm of the bile duct. Diagnosis of CC is hampered by the inadequate performance of current plasma markers of disease, particularly in patients with preexisting primary sclerosing cholangitis (PSC). We aimed to identify potential new protein biomarkers of CC

Methods In an initial discovery study, blood plasma samples from 18 subjects with CC, 17 with PSC and 10 healthy controls were subjected to SELDI-TOF MS. Comparisons of m/z peak intensity were made between groups using the Mann-Whitney U test. Differentiating m/z peaks were then confirmed in a further validation study of 81 subjects with CC, 54 with PSC and 90 healthy controls. Pearson´s correlation was used to investigate the relationship of each m/z peak´s intensity to routine laboratory indices. Diagnostic performance was investigated using receiver operator characteristic area-under-the curve (ROC-AUC) analyses. Multiple linear regression was used to investigate the performance of combinations of differentiating m/z peaks, as well as the combination of m/z peaks with routine laboratory markers (including CA19–9).

Results Seven differentially expressed m/z peaks were identified in the CC group and these were subsequently confirmed in the validation study ($p = 2.6 \times 10–4$ to $9.4 \times 10–13$). The intensity of the seven m/z peaks of interest did not correlate with creatinine, ALP, bilirubin, CRP, white cell count or CA19–9. A panel of three peaks discriminated CC from PSC subjects with ROC-AUC of 0.76 (sensitivity 75%, specificity 64%). A panel of five peaks discriminated CC subjects from healthy controls with ROC-AUC of 0.90 (sensitivity 95%, specificity 74%). Addition of routine laboratory indices did not change the diagnostic performance of these models significantly.

Conclusion SELDI-TOF has been used to successfully identify seven m/z peaks that are differentially intense in CC subjects (total n = 99), when compared to PSC subjects (n = 64) and healthy controls (n = 107). These peaks appear to be independent of standard markers of renal impairment, cholestasis, sepsis and inflammation, as well as CA19–9. Individually, and more so in combination, these peaks exceed the expected diagnostic performance of CA19–9, particularly in discriminating CC from PSC. Work to identify the proteins represented by these m/z peaks is ongoing.

Disclosure of Interest None Declared

PTU-100 DECOMPENSATED ALCOHOLIC LIVER DISEASE (ALD) IS ASSOCIATED WITH STARTING HEAVY DRINKING AT AN OLDER AGE: A CASE-CONTROL STUDY

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Introduction The relationship between development of ALD (which affects only 10–15% of heavy drinkers) and rate, duration and age of onset of alcohol consumption is incompletely understood. We have previously reported on total lifetime alcohol consumption in two cohorts of heavy drinkers (> 60 Units/wk(M) or > 40 Units/wk(F) for ≥ 5 years): one (patients) with decompensated ALD (Child Grade B or C, negative tests for other liver diseases) and one (controls) without serious liver disease on clinical, laboratory and ultrasound examination. Here, we aimed to compare alcohol consumption patterns in these cohorts in more detail.

Methods Subjects (330 patients, 234 male, mean age 48 yr and 238 heavy-drinking controls, 187 male, mean age 48 yr) completed a lifetime alcohol questionnaire. Alcohol consumption was calculated at home and outside home, and during Monday-Thursday and Friday-Sunday. Data were summed over each stable drinking period during the subject's lifetime. We calculated (a) total duration, and age at start and at cessation of all periods during which the subject drank > 0, > 40, > 80, > 120 and > 160 units(U)/wk and (b) percent of drinking career engaged in: regular drinking, drinking < 5 days per week, weekend drinking and not drinking.

Results

Abstract PTU-100 Table

	PATIENTS		CONTROLS	
Units/wk	Duration (yr)*	Age started(yr)*	Duration (yr)	Age started (yr)
> 0	30 (23–36)	17 (16–18)+	30 (23–36)	16 (15–18)
> 40	20 (14–27)	22 (18–30)+	22 (16–30)	19 (17–25)
> 80	12 (6–19)	29 (21–38)+	13 (7–22)	25 (18–33)
> 120	3 (0–12)	32 (24–41)++	4 (0–10)	28 (21–37)
> 160	0 (0–7)	33 (27–41)+++	0 (0–7)	30 (24–39)

*: median (interquartile range). +: $p < 0.001$, ++: $p = 0.02$, +++: $p = 0.017$ by Mann-Whitney test for patients vs controls.

Neither total duration of periods consuming > 0, > 40, > 80, > 120, and > 160 U alcohol/wk (table) mean weekly consumption during those periods (not shown) differed significantly between patients and controls. However, patients first started drinking over each level at an older age than did controls (table). The relationships between ALD and age of starting drinking > 0, > 40, > 80, > 120 and > 160 U/week persisted in multivariate analysis ($p = 0.00–0.013$). Subjects spent 83(63–97)% of their careers in regular drinking, with no case-control differences.

Conclusion Development of decompensated ALD in heavy drinkers is associated with starting heavy drinking at an older age.

Disclosure of Interest None Declared

REFERENCE

J Hepatol 2012; 56:S53

PTU-101 PATIENTS WITH SCHISTOSOMAL PORTAL HYPERTENSION HAVE HIGH CONCENTRATION OF FIBROTIC AND INFLAMMATORY MARKERS

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Introduction Worldwide the commonest cause of portal hypertension is cirrhosis, but in tropics schistosomiasis is a major cause. Parts of Zambia are hyper-endemic, with up to 77% prevalence in some areas. Due to preservation of hepatocellular function, prognosis of gastrointestinal bleed due to hepato-splenic schistosomiasis is considered better than in cirrhosis. To confirm liver fibrosis the gold standard is a liver biopsy but this is invasive and and prone to sampling error. We set out to observe the fibrotic markers and also evaluate inflammatory makers in patients with hepato- splenic schistosomiasis at the University Teaching Hospital (UTH) in Zambia.

Methods This is a case control study of schistosomal related portal hypertension at the University Teaching Hospital in Lusaka Zambia. 40 patients have been recruited since mid September 2012 and the study is ongoing. All patients had varices. Blood was drawn to cheque full blood count, viral hepatitis profile, renal and liver function tests. Laminin and hyaluronic acid were used as markers of liver fibrosis while TNF receptor 1 and sCD14 were used as markers of inflammation. Serology for Schistosoma antibodies was done. Stool for parasitology and abdominal ultrasound were done. All patients were on propranolol or nadolol aiming for the pulse of less than 60/minute.

Results 40 patients were evaluated. The sex ratio was M:F 23:17 and the mean age was 40.5. Serology for schistosomiasis was positive in 34 (85%) and negative in 6 (15%) patients. All patients were sero-negative for HIV except one and were sero-negative for hepatitis B and C viruses. All patients had marked thrombocytopenia with the median being 49 × 10^9/L (IQR 33.5–69.5) × 10^9/L. Median ALT was 29.35 U/l (IQR 22.1–41.2) with 77.5% in the normal range. Of the 28 patients who submitted stool for parasitology 17 (61%) had no organism isolated, 4 (14%) had hook worms, 3 (11%) had Schistosoma eggs, 2 (7%) had ascaris and 2 (7%) had other organisms. Laminin levels (median 1608 ng/l, IQR 1416–1898) were all above normal. Hyaluronic acid levels were all higher than any of the standards in the ELISA kits and will have to be diluted to obtain precise values. All patients had elevated inflammatory markers: TNF receptor 1 concentrations were 10965 pg/ml (IQR 7990–15660; upper limit of normal 1966 pg/ml). Soluble CD14 values measured in ng/ml were equally found to be higher, median being 2469 (IQR1792–3119); upper limit of normal 2200ng/ml.

Conclusion Schistosomiasis is a leading cause of portal hypertension in Zambia and it is associated with high levels of liver fibrotic markers which could be used to assess disease severity. It appears like hepato-splenic schistosomiasis induces high levels of inflammatory markers such as TNF receptor 1 and s CD14.

Disclosure of Interest None Declared.

PTU-102 ALCOHOLIC LIVER DISEASE IN WORKING AGE MEN CONSTITUTES THE MAIN BURDEN OF LARGE VOLUME PARACENTESIS (LVP) IN DEVON AND SIGNIFICANT COST SAVINGS ARE POSSIBLE

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Introduction The burden of liver disease is steadily rising in the UK, partly secondary to alcohol misuse. Ascites requiring LVP is one of the major complications leading to hospital admission in patients with cirrhosis. Clear guidelines[1] exist regarding correct replacement of albumin and these also state that routine use of blood products to correct coagulopathy is not necessary. However, these are not always consistently applied.

Our aim was to assess the demographic data of patients with cirrhosis undergoing LVP at our centre along with the use of albumin replacement and blood products.

Methods We identified patients who had undergone LVP at our hospital during a 12 month period from October 2010 by reviewing the admission book of our department and by reviewing a list of all