

Abstract P192 Table 1

Subject Characteristics	Baseline (n=30)	Post-VLCD (n=27)	P-Value
Age (years)	56 ± 12		
Sex (n) male/female	18/12		
Time since NAFLD Diagnosis (months):	28.4 ± 31.7 13.5 (1–113)		
Mean			
Median (range)			
Anthropometry			
Weight (kg)	119 ± 25	104 ± 21	0.000**
BMI (kg/m ²)	42 ± 8	37 ± 8	0.000**
Body fat (%)	45 ± 6.9	40 ± 9.1	0.001**
Blood pressure: Systolic (mmHg)	144 ± 15	133 ± 14	0.003**
Diastolic (mmHg)	86 ± 11	81 ± 9	0.018*
Blood samples			
Total cholesterol (mmol/L)	4.3 ± 0.9	4.3 ± 1.1	0.652
Triglycerides (mmol/L)	2.1 ± 1.8	2.0 ± 1.4	0.156
HDL (mmol/L)	1.2 ± 0.3	1.6 ± 1.9	0.270
AST (IU/L)	35 ± 18	25 ± 9	0.004**
ALT (IU/L)	47 ± 30	31 ± 16	0.003**
GGT (IU/L)	82 ± 74	52 ± 72	0.000**
Fasting glucose (mmol/L)	7.5 ± 2.3	6.1 ± 1.1	0.002**
Hba1c (mmol/mol)	50 ± 13	42 ± 9	0.000**
Insulin (pmol/L)	135 ± 85	92 ± 91	0.018*
Fibroscan			
Stiffness (KPa)	13.0 ± 6.6	8.0 ± 2.9	0.022*
IQR (KPa)	3.5 ± 3.0	2.5 ± 2.8	0.183
Non-invasive scores			
FIB-4	1.5 ± 1.0	1.2 ± 0.7	0.206
QRISK2	15.6 ± 14.2	11.9 ± 9.8	0.030*

Values are means (SD).

*significant difference Baseline vs. Post-VLCD ($p < 0.05$); **significant difference ($p < 0.01$)

willing to undertake the strict dietary intervention and significant improvements in liver, metabolic and cardiac health were observed.

P193 PATIENTS WITH HEPATITIS C ARE AT HIGH RISK OF CARDIOVASCULAR EVENTS

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Background Chronic hepatitis C virus infection (CHC) is a risk factor for cardiovascular (CV) disease. Despite this, many clinicians focus on managing the hepatic complications of CHC and CV risk factors may not be assessed. Our aim was to examine the prevalence of CV risk factors in a cohort of CHC patients to determine the proportion of individuals at high risk of CV events and whether this risk was actively managed.

Methods Patients with CHC (untreated or cured) were recruited prospectively from viral hepatitis clinics. Data was collected on CV risk factors, lifestyle behaviours,

anthropometry, and body composition. QRISK3, a validated tool to predict 10-year risk of CV events, was calculated.

Results 100 patients were recruited (67% male, 93% white, median age 52 years [range 24–80], 71% treated HCV, 34% advanced fibrosis/cirrhosis). Overall, the mean BMI was 28±6 kg/m², 14% had type 2 diabetes, 61% had hypertension and 30% had the metabolic syndrome (ATPIII criteria). The median fat mass was 29% [7–45] for males and 39% [12–54] for females. 79% had a history of smoking and 52% were current smokers (UK average 15%). 9% of patients had diagnosed CV disease. Overall, the median 10-year CV event risk was 8.3% (0.3–63%). 45% had a predicted 10-year CV event risk of >10%, of which all were aged over 45 years. Despite presenting with a CV event risk indicative of statin treatment, only 10% of these individuals were treated with lipid lowering drugs and 27% treated with antihypertensives. Overall, 92% had a predicted ‘heart age’ greater than their actual age (median difference +7 [-4 to +26] years). There was no significant difference between predicted ‘heart age’ and actual age for treated CHC and those with active CHC ($p=0.92$)

Conclusions A large proportion of individuals with CHC attending secondary care clinics have a high risk of CV events and present with a range of comorbidities. In order to improve the holistic management of these patients, regular assessment of CV risk should be undertaken, particularly in those over 45 years. CV risk factors (smoking, BP, dyslipidaemia and diabetes) should be actively managed.

P194 THE BURDEN OF HEPATITIS D INFECTION IN EAST LONDON

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Introduction Hepatitis D virus (HDV) only infects patients with pre-existing hepatitis B. It is commonly found in Eastern Europe, Middle East, Africa and South America. Barts Health NHS Trust is one of the largest NHS trust in the UK and consists mainly of The Royal London, St Bartholomew's, Whipps Cross, Newham and Mile End hospital. It serves 2.6 million population in a large part of cosmopolitan East London area where HDV could be more prevalent due to its mobile population. We conducted a retrospective study to evaluate the burden of hepatitis D in our trust with an aim to improve our service delivery and care.

Methods All patients who had positive hepatitis B surface antigen (HBsAg) and those who were tested for anti HDV serology (total IgG and IgM) were identified from Virology department database. Newly diagnosed hepatitis B patients were screened from the above data and matched with HDV results. Data were then collected from electronic health records.

Results Two thousand and one hundred eight cases were identified in the one-year period from 1st October 2017–30th September 2018. After removing duplicates, previous diagnosis and incomplete data, there are confirmed 927 new diagnosis of hepatitis B. Of them, only 328 (35%) had anti HDV serology performed. Of them, 20 (6.1%) are anti HDV serology positive. Out of these 20 cases, 5 (25%) have HDV DNA >640 copies/ml, i.e. PCR positive. Overall, only 5 of 328

(1.5%) who were tested for HDV serology had acute HDV co-infection.

Conclusion In our hepatitis B population, we estimate that there is a 6.1% seroprevalence rate of hepatitis D and 1.5% acute hepatitis D co-infection. There is also a room for improvement in hepatitis D screening within our trust and more study is needed to identify barriers in screening and robust public health measures may be needed to follow up this population.

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RELATIVE ADRENAL INSUFFICIENCY AS A NOVEL PROGNOSTIC MARKER IN ADVANCED LIVER DISEASE AND REFRACTORY ASCITES

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Introduction Liver disease is a major cause of premature death in the United Kingdom. Septic shock is often the terminal event in cirrhotic patient. However even in non-septic cirrhotic patients there are cascade of physiological similarities to severe sepsis like hyperdynamic circulatory failure, low mean arterial pressure, increased cardiac output, elevated levels of proinflammatory cytokines.

Hypothalamus-pituitary-adrenal dysfunction leading to relative adrenalin insufficiency (RAI) is a well-recognised phenomenon in septic shock, although in the context of liver disease it is poorly defined. Given these pathophysiological changes, we hypothesize that RAI has important role to play in refractory ascites.

Aim The aim of the study was to assess the prevalence of RAI in advanced liver disease and refractory ascites. We further explored the relevance of RAI as a prognostic tool to predict patients outcomes with advanced liver disease and diuretic intractable ascites.

Methods We prospectively undertook short synacthen test (SST) in patients with advanced liver disease presenting with ascites and hyponatremia. Delta cortisol levels was calculated as difference between baseline serum cortisol and serum cortisol after 60 min in response to intravenous administration of 250 µg corticotrophin (synacthen). We adopted the international task force criteria of random serum total cortisol of < 276 nmol/L or delta cortisol of < 250 nmol/L to define RAI. Patients with advanced liver disease were characterised to define the prevalence of RAI. Standard prognostic markers such as Child Pugh and MELD score were also analysed.

Results A total of twelve patients with advanced liver disease presenting with ascites and hyponatremia were studied. Mean

delta cortisol level was 268.5 ±153.5. There was a significant variation in response to SST within the group. Using the international task force criteria a total of 9 patients (9/12, 75%) had RAI.

Overall, the 3 month mortality amongst these patients was very high (42% mortality, 5/12). Combined rate of mortality or enrolment to transplant waiting list was 67% (8/12).

There were 8 patients in the cohort with MELD score below 19 and five of these patients (63%) had RAI. We observed that 100% of the patients with RAI in this cohort died within 3 months of the test (3/5) or enrolled to transplant list (2/5) in contrast to only 33% (1/3) of patient without RAI. Out of the remainder 4 patients with MELD score >19, all four had RAI.

Conclusion For the first time we describe high prevalence of RAI in patients with advanced liver disease. RAI may well be a previously unidentified physiological phenomenon for development of refractory ascites. Preliminary data suggests that RAI is likely to be able to predict prognosis in such patients. Further larger studies aimed at validating RAI as a prognostic marker and role of corticosteroids in selective patients to help aid treat refractory ascites and its impact on overall mortality now need to be undertaken.

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OPTIMIZING NUTRITION IN PATIENTS WITH CIRRHOSIS REDUCES HOSPITAL READMISSIONS IN MEDIUM AND HIGH RISK GROUPS

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Introduction Malnutrition adversely affects prognosis in cirrhosis and is often recognized late. All cirrhotic patients should be screened for malnutrition yet this is variably performed. We evaluated assessment and management of nutrition in cirrhosis by comparing local practice to EASL guidelines, and explored patient outcomes after a focused intervention.

Method Data was collected in 2 cycles. Cycle 1 retrospectively reviewed nutritional assessment of all patients admitted to gastroenterology during Sept.-Dec. 2018 with cirrhosis. An Inpatient Nutrition Proforma (INP) was introduced to record Child-Pugh (CP), anthropometrics, dietary intake, malnutrition risk and nutrition plan. Sarcopenia was assessed in high risk patients using handgrip strength (HGS). All CP-C and BMI <18.5 were high risk. Cycle 2 prospectively audited admissions after intervention (March-June 2019). Calorie-protein

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Patient	Age	Etiology	MELD	Child-Pugh	RAI	Random cortisol	Post SST	Delta cortisol	Mortality / Transplant	Mortality
Patient 1	76	ALD	6	9	Y	316	490	174	Y	Y
Patient 2	64	ALD	7	8	Y	174	415	241	Y	N
Patient 3	44	ALD	8	8	Y	244	611	367	Y	Y
Patient 4	52	ALD	10	9	Y	205	452	247	Y	N
Patient 5	62	ALD	10	7	N	272	585	313	N	N
Patient 6	60	ALD	17	10	Y	344	573	229	Y	N
Patient 7	37	ALD	17	10	N	208	514	307	N	N
Patient 8	85	NASH	17	9	N	489	916	427	Y	Y
Patient 9	39	ALD	20	10	Y	414	580	166	N	N
Patient 10	72	NASH	21	12	Y	590	820	230	Y	Y
Patient 11	70	AIH	24	10	Y	386	610	224	N	N
Patient 12	50	ALD	26	13	Y	167	464	297	Y	Y