

cryoglobulin positive if a precipitate formed which disappeared on re-warming. Clinical features were correlated with presence of cryoglobulin.

Results Adequate samples were received in 65/75 HCV infected patients (31 G1, 34 G3). Of these, 35.4% (23/65) had detectable cryoglobulin. No cryoglobulin was detected in the healthy control samples. Clinical associations are listed below (p values from Fisher's Exact Test unless otherwise stated).

Abstract PWE-132 Table

Clinical Parameter	Cryoglobulin Positive (n = 23)	Cryoglobulin Negative (n = 42)	P value
Male (%)	13 (57)	34 (81)	0.04
Age (mean yrs)	44.6	45.8	0.73*
Genotype 3 (%)	15 (65)	19 (45)	0.10
Cirrhosis (%)	13 (57)	10 (24)	0.09
Renal Function (mean Cr)	67	72	0.17*
Viral load (mean IU/ml)	5.2x10 ⁵	4.6x10 ⁵	0.23*
Any symptoms (%) (excluding fatigue)	12 (52)	16 (38)	0.30 ⁻
Fatigue (median score/10)	5	5	0.75

*t test

⁻Wilcoxon rank sum

There was no difference in prevalence of IVDU or Diabetes in those with cryoglobulins. No individual symptom was associated with cryoglobulin detection.

Conclusion Cryoglobulinaemia has a surprisingly high prevalence of 35% within our UK based cohort of HCV patients, being less common in males. Symptoms are non-specific and occur in the absence of detectable cryoglobulin with no association between symptoms and cryoglobulin positivity. There was a non-significant trend to association with cirrhosis and genotype 3 as shown in previous studies.

Cryoglobulinaemia may have been underdiagnosed previously due to practical difficulties with testing and it should be considered in any patients with renal dysfunction and HCV.

REFERENCES

1. Adv Hematol 2011 doi:10.1155/2011/835314
2. Hepatology 2002; 36:978–985

PWE-133 OESOPHAGEAL VARICES SCREENING - ARE WE MEETING THE GUIDELINES?

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Introduction Oesophageal varices develop and enlarge in cirrhotic patients at a rate of 8% per year and haemorrhage occurs at a rate of 5–15% per annum, causing significant morbidity and mortality. Of the 16,000 deaths/year attributed to cirrhosis, 33% are due to variceal bleeding. Despite improvements in therapy and prophylaxis the mortality from bleeding varices has remained static. Current BSG guidelines recommend screening with OGD at diagnosis and then 1–3 yearly depending on endoscopic findings¹.

Methods A retrospective review of clinic letters for all gastroenterologists at STDH from Aug-Oct 2012 was performed. Those eligible for variceal screening i.e. established cirrhosis, decompensated liver disease or evidence of portal hypertension on imaging were identified. Demographic details and liver disease aetiology were recorded. The endoscopy reporting system was reviewed to identify OGDs performed within the last 3 years and the indication for OGD. If an OGD report was absent, the appointment system and case notes were reviewed to establish if the patient refused or failed to attend

(FTA) for OGD. Where no evidence of FTA or refusal were found, clinician failure to refer was documented.

Results 84 eligible patients were identified, 64 (76.2%) had an OGD recorded within the last 3 years.

Table 1 shows results according to liver disease aetiology. In the group with a NAFLD/NASH or "other" aetiology, all 16 cases who had not had OGD had not been referred. Of the alcohol aetiology, 7/16 had not been referred for OGD, and 9/16 FTA or were documented to have refused the test.

Abstract PWE-133 Table 1

Aetiology	Number	OGD within 3 years (%)	Indication (%)		
			Screening/ surveillance	Bleeding	Other
Alcohol	67	51 (76.1)	37 (55.2)	9 (13.4)	5 (7.5)
NAFLD/NASH	8	5 (62.5)	3 (37.5)	1 (12.5)	1 (12.5)
Other*	8	7 (87.5)	5 (62.5)	1 (12.5)	1 (12.5)

*autoimmune hepatitis, primary biliary cirrhosis, hepatitis C, cryptogenic cirrhosis, and unknown or still under investigation

Conclusion Three quarters of patients eligible for varices screening have had an OGD within the maximum time frame suggested by the BSG guidelines. However, excluding OGDs performed for acute bleeding or other indications only 45/84 (56.6%) have been appropriately screened.

The majority of cases in this audit are secondary to alcoholic liver disease and their high FTA rate reiterates the known difficulties in engaging this group of patients, although numbers are small. This audit suggests a need to improve rates of screening for oesophageal varices; the main reasons suggested by this audit that could be targeted to improve screening rates are appropriate referral by clinicians and reluctance to attend for the test particularly in liver disease secondary to alcohol.

Disclosure of Interest None Declared.

REFERENCE

1. Jalan R, Hayes PC. UK Guidelines on the management of variceal haemorrhage in cirrhotic patients. Gut 2000; 46(Suppl 3):iii1-iii15

PWE-134 OUTCOMES FOR LIVER DISEASE PATIENTS ADMITTED TO A DISTRICT GENERAL HOSPITAL

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Introduction In the UK, liver disease is the 5th commonest cause of death. A recent BSG commissioning report states that there were 43,694 hospital episodes due to liver disease with a mortality rate of 15.5% and median age of death of 59¹. The guidelines recommend that all liver disease should be managed by a hepatologist. Newham University Hospital (NUH) serves a socially deprived and ethnically diverse population of 290,000.

Methods All patients with a primary diagnosis of liver disease admitted to NUH from 1 April 2012 to 31 October 2012 were included in this study. Patients were identified from the on-call admission lists and electronic patient records and admission notes were checked for suitability. Patients admitted with alcohol withdrawal but without underlying liver disease were excluded. We examined the outcomes of all liver patients admitted during this time period.

Results 78 patients were admitted, of which 9 had ≥2 admissions. The demographic data and outcomes are listed in Table 1. The ethnic variation reflected that of the local community. The main causes of liver disease were alcoholic liver disease (56%), viral hepatitis

(22%) and drug-induced hepatitis (12%). The commonest reason for admission was decompensated liver disease seen in 32% of patients. 14.5% of patients experienced variceal haemorrhage at or during admission. There was a significant difference in mortality, in-hospital complications and the need for tertiary centre referral between patients with and without cirrhosis. The commonest in-hospital complications were infection and renal dysfunction; 16% of our patients required ICU support. There was no significant difference in median length of stay (LOS) between patients with and without cirrhosis. However patients with cirrhosis had more complex discharge requirements as demonstrated by referral to social services.

Abstract PWE- Table 1 Demographics & Outcomes

	Cirrhosis (n = 46)	Non-Cirrhosis (n = 23)
Gender: Male:Female	30:16	15:8
Age range (mean)	37–84 (54)	23–74 (49)
Ethnicity: White:Non-White	25:21	9:14
Inpatient complications (%)	14 (20%)	0
Mortality (%)	5 (7%)	0
Tertiary centre transfer (%)	7 (10%)	0
LOS range (median)	1–46 (6)	1–36 (7)
Section 2 social work referral	11	4

Conclusion Patients with cirrhosis have significantly more complex in hospital stay and discharge needs compared to patients without cirrhosis. Our study has shown a significantly lower mortality for patients with liver disease than previous studies. We suggest that management by a hepatologist and access to tertiary services improves mortality. The complexity of patients with cirrhosis suggests that a multi-professional team is required to reduce overall LOS.

Disclosure of Interest None Declared.

REFERENCE

1. http://www.bsg.org.uk/images/Commissioning_report/BSG_Commissioning%20Report.pdf

PWE-135 HEPATITIS E: AN EMERGING INFECTION IN NORTH EAST OF SCOTLAND?

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Introduction Hepatitis E virus (HEV) is enterically transmitted and is endemic in some areas of the world. In the UK it was generally thought to be associated with travel but infection in those with no history of travel outside the UK has recently been recognised.[1] We reviewed data of patients with serologically proven acute HEV infection in North East of Scotland.

Methods The Regional Virology database was interrogated to identify all patients who had serological testing for acute HEV infection {anti-HEV IgM antibody [recomWell ELISA kits (Mikrogen)]} between March 2011 and November 2012. Casenote review was performed in those with positive serology. Presenting features and clinical course were recorded in addition to demographics, occupation, travel history, biochemical abnormalities, imaging and liver biopsy results.

Results There were 105 patients who had serological testing for evidence of acute HEV infection and 12 (11%) yielded positive IgM results, with HEV RNA detectable in 10/12 (83%) using an in-house real time RT-PCR assay.

Of the 12 confirmed cases, 10 (83%) were male and median age was 54.5 years. There was no history of travel outwith the UK in 7

(60%). Presentation was with flu like illness in 75% and clinically detectable jaundice was present in 66%. Hospitalisation was needed in 83%.

All patients had a significant transaminitis, median ALT 1487 IU/L (range 117–5645). The ALT to AST ratio was greater than 1. Serological screening for other causes of acute hepatitis was negative. IgA was elevated in 58% cases. Imaging was normal in 6 (50%), with fatty change in 3 (25%) and calculi confined to the gall bladder alone in 4 (33%) cases. Two patients underwent liver biopsy to exclude pre-existing liver disease. In both the features noted were consistent with viral liver injury.

All patients had spontaneous clinical and biochemical resolution with median time to normalisation of ALT of 6 (range 4–26) weeks. One patient developed both clinical and biochemical thyrotoxicosis which resolved spontaneously with resolution of HEV-associated clinical symptoms. Of interest, during the same study period 6 cases of acute Hepatitis B and 3 cases of acute Hepatitis A infection were diagnosed in our region.

Conclusion In our region, prevalence of HEV related acute hepatitis is higher than previously perceived and appears to be more common than acute Hepatitis A and B. Acquisition of HEV infection occurs in the UK often without travel history or obvious source of infection. Therefore, we suggest routine testing for HEV in patients with significant transaminitis.

Disclosure of Interest None Declared.

REFERENCE

1. Kamar N, Bendall R, Legrand-Abravanel F, *et al.* Hepatitis E. *The Lancet*; 379(9835):2477–2488.

PWE-136 THE EFFECT OF C282Y HOMOZYGOSITY ON FULL BLOOD COUNT INDICES

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Introduction Full blood count (FBC) indices and iron studies are utilised in initial screening of patients with clinical suspicion of haemochromatosis and HFE genetic testing is used for diagnosis. The aim of this study is to determine what effect haemochromatosis has on FBC indices and to detect any correlation with iron overload in subjects with C282Y homozygosity.

Methods Data were obtained from blood samples taken from first time donors to the Australian Red Cross Service prior to venesection. FBC indices were recorded from C282Y homozygous patients and also from an age-matched healthy control group. Ferritin levels from the haemochromatosis group were also obtained. All P values were derived from two-tailed statistical tests and Chi-square tests. P values of less than 0.05 considered significant. Multivariate regression analysis was used to assess the differences between blood donors and haemochromatosis patients.

Results The HFE group and normal controls were well matched with forty males and forty females in each group and no significant difference in age between the groups. Males homozygous for C282Y had a significantly (P = 0.001) higher mean ferritin level 787.3 mcg/L (522.1–1052.6) compared with females 268.3 mcg/L (147.1–389.4). Eighty percent of C282Y homozygous males presented with iron overload on their first Red Cross Blood donation visit, whereas only fifty percent of C282Y homozygous females had an elevated ferritin level on their first visit (P = 0.045). Of the forty patients homozygous for the C282Y mutations, there was evidence of iron overload in 26 patients (as defined by a ferritin greater than 200 mcg/L). There was no significant difference in all measure parameters between haemochromatosis patients with a