PWE-128 SURVEILLANCE OF HEPATOCELLULAR CARCINOMA – CONSISTENT OR CONFUSED?

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Introduction BSG guidelines for diagnosis and treatment of hepatocellular carcinoma (2003) advocate 6 monthly surveillance of high risk cirrhotic patients with abdominal ultrasonography and alfa-feto protein estimation.

An audit of cirrhotic patients managed at the Royal United Hospital demonstrated poor compliance with BSG guidelines, with only 24.1% of eligible patients receiving regular 6 monthly surveillance over an 18 month period. Compliance was particularly poor amongst viral hepatitis patients who often failed to attend appointments.

The current work explores whether the difficulties and inconsistencies noted on a local level are representative of wider practice, and considers ways in which barriers to optimum practice could be overcome.

Methods Issues raised from a local audit (see above) informed design of an electronic questionnaire which assessed policy, clinician opinion, and response to various clinical scenarios. This was distributed to Gastroenterology/Hepatology consultants and STRs in the South West and Wales.

Results 81 responses were received from 16 NHS trusts across the South West and Wales (42% response rate). 41% of respondents were consultants (59% gastroenterologists/41% hepatologists). 65.3% of respondents were familiar with BSG guidelines, however only 21.8% used them within their institution. 33% of respondents did not know which guidelines their department used.

Widespread variation was noted in response to clinical scenarios. Whereas there was general agreement that 6 monthly surveillance should be afforded to patients with cirrhosis secondary to haemochromatosis and alcohol when abstinent (even amongst females which is not suggested in BSG guidelines), opinion was divided in respect to patients who continued to drink, and in those with non-cirrhotic chronic hepatitis B (47% would offer surveillance, 36% would not).

Poor patient compliance and insufficient resources and expertise to co-ordinate surveillance programmes were cited as the main barriers to successful surveillance. 86% of respondents felt HCC surveillance could be improved within their institution, and 38% thought HCC surveillance programmes should be further extended given recent developments in palliative management.

Conclusion Findings from this study would, if representative of wider practice, suggest considerable variations in HCC surveillance accross the UK currently exist. Low levels of compliance with and awareness of BSG guidelines were demonstrated. Opinion regarding optimum surveillance of certain pateint groups (e.g., non-cirrhotic viral hepatitis and alcoholic cirrhosis in females) was generally at odds with guidelines. Updating guidelines to account for recent changes in HCC management may help to achieve nationally consistent high quality HCC surveillance. Strategies for improving local HCC surveillance are discussed.

Disclosure of Interest None Declared.

PWE-129 TRENDS IN VARICEAL BLEEDING: A SINGLE CENTRE EXPERIENCE FROM 2006–2013

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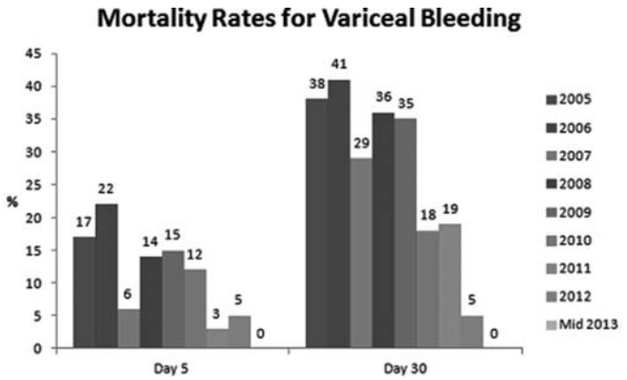
Introduction Over the last decade, the numbers of patients presenting with chronic liver disease has risen. During this period the approach to the treatment of variceal bleeding has undergone important changes both internationally (adoption of early TIPSS in high risk cases), and locally with the development of a 24 h endoscopy service (2006), movement to single site hospital with enlarged intensive care capacity (2009), adoption of the Danis™ stent (2009) and a shift to carvedilol as the primary agent for prophylaxis (2013). We reviewed all episodes of variceal bleeding in the last 8 years to describe patient outcomes.

Methods All episodes of bleeding from oesophageal varices managed in the Liver Unit at Royal Derby Hospital from 2005 to mid 2013 were identified from clinical coding data – population served approx. 650,000. A retrospective review of the patient records identified the aetiology and severity of liver disease, morbidity, mortality, endoscopy findings and episodes of rebleeding.

Results Each year between 17 and 31 patients presented with variceal bleeding. 5 day mortality fluctuated between 3–22% whereas 30 day mortality fell steadily from a peak in 2006 of 41% to 5% in 2012 (Figure 1). The reduction in mortality was in Child's B/C cirrhosis. Interestingly, the proportion of episodes in Child's A cirrhosis increased from 2009 onwards (7% of all bleeding episodes in 2009 to above 30% in 2013). 30 day mortality rates for Child's A did not improve but remained lower than for those with Child's B/C cirrhosis (mean 9.8% compared to 22.8% (2009–2013)). From 2007, there was a fall in frequency of rebleeding from 35% to below 10% in 2013. Only 3 high risk patients underwent an early TIPSS procedure, all after 2012.

Conclusion Variceal bleeding rates have remained surprisingly constant over 8 years despite the rise in admissions with chronic liver disease. Outcomes for acute variceal bleeding have improved which is likely the result of several organisational changes. Notably, rebleeding rates and 30 day mortality decreased even before the adoption of early TIPSS.

Disclosure of Interest None Declared.



Abstract PWE-129 Figure 1

PWE-130 PHENOTYPE AND LOCALISATION OF LIVER INFILTRATING B CELL SUBSETS IN AUTOIMMUNE AND INFLAMMATORY LIVER DISEASES

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Introduction B cells classically provide humoral immunity in the form of antibody production as part of the adaptive immune response. Regulatory and antigen presenting functions of B cells have been reported before and autoantibodies are associated with autoimmune liver diseases. B cell depletion in animal models of PBC has highlighted the regulatory roles of B cells in ameliorating disease. Some evidence of efficacy of anti-B cell therapy using rituximab in human autoimmune liver diseases further supports a role for B cells. Mature B cells (Bm) subpopulations had been described in Sjogren's syndrome. However, little is known about the localisation, subsets, phenotype and function of B cells in human liver diseases.
Methods In this study we characterised the frequencies of B cell subsets in the blood and liver of patients with inflammatory and autoimmune liver diseases.
Results Frequencies of naïve mature BM1 cells were reduced in the liver compared to blood (7.5% ± 2.3 vs. 20.2% ±2.8 p = 0.0022) and $IgD^{neg}CD27^{neg}$ subset was increased in diseased livers compared to diseased blood (22.9% ± 6.8 vs. 6.0% ± 1.1 p = 0.0013). B cells localise close to the bile ducts in PBC and reside around hepatocytes in AIH. Frequencies of regulatory B cells ($CD19^{pos}CD24^{hi}CD38^{hi}$) were significantly reduced in diseased blood vs. control blood (1.8% ± 0.4 vs. 3.6% ± 0.5 p = 0.01) similar to recent observation in acute rheumatoid arthritis. However this population is increased in the diseased liver compared with blood (6.2% ± 0.07 vs. 1.8% ± 0.4 p = 0.007), suggesting enrichment of regulatory B cells within the inflamed liver. Liver infiltrating B cells were capable of IL-10 production.
Conclusion We have characterised for the first time the heterogeneity of B cell subsets and presence of regulatory B cells and IL-10 secreting B cells in human diseased livers. We showed that B cells reside close to bile ducts along with other immune cells; thus B cells may play a role in biliary pathology.
Disclosure of Interest None Declared.

PWE-131 FACTORS CONTRIBUTING TO VARIANCE BETWEEN ARFI ELASTOGRAPHY AND LIVER HISTOLOGY: RESULTS OF A LARGE UNSELECTED CONSECUTIVE SERIES WITH SIMULTANEOUS BIOPSY OF ARFI MEASUREMENT SITE

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Introduction ARFI™ (Acoustic Radiation Force Impulse) elastography is a widely applicable technique for the non-invasive assessment of liver fibrosis, which has been well validated in viral hepatitis patients. As with transient elastography, the predictive value of this technique falls in intermediate stages of fibrosis, and shear velocity readings may also be affected by a number of other factors. However, few studies have systematically exam: ined the causes of the observed variance with liver histology. We report the results of a large unselected series, in which liver stiffness and histology have been sampled simultaneously from the same region of liver tissue.
Methods One hundred and eighty six unselected, consecutive secondary care referrals underwent simultaneous elastography and liver biopsy from the same right lobe liver window, both performed or supervised by a single senior radiologist in all cases. ARFI shear velocity measurements were made using a standard 10 observation technique, and biopsies taken using an 18G Biopince™ needle. All biopsies were reviewed by a single specialist histopathologist. Clinical, laboratory, elastographic and histological data were analysed retrospectively. ARFI/histological variance (AHV) was defined as a difference of more than 1 Metavir or 2 Ishak stages from that predicted by ARFI, according to standard calibration.[1]
Results Aetiologies were 99 viral hepatitis, 39 autoimmune (AILD) and other in 48. AHV was seen in 56(30.1%), of which 46(82%) showed a lower histological stage than predicted. AHV was not associated with age, gender, or ARFI measurement depths. Inflammation (ALT, necroinflammation), steatosis (US echogenicity, histology), suboptimal ARFI quality (IQR/median > 0.3) and AILD aetiology were significantly more common in AHV (p = 0.01, 0.007, <0.001 and 0.018, respectively). Two or more of these variables were present in 61% of variants, compared with 26.9% of non-variants (p < 0.001).
Conclusion These simultaneous paired data show that ARFI/ histological variance is common and influenced by aetiology, inflammation, steatosis and technical quality. It is more common in active autoimmune liver disease than in viral hepatitis. Assuming that histology is a true "Gold standard", taking these 4 factors into account when interpreting ARFI scores will assist in assessing the predictive reliability of elastography, and hence in clinical decision making with regard to liver biopsy and treatment. Further prospective studies with paired ARFI/histology sampling are warranted to confirm these findings.

REFERENCE

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Disclosure of Interest None Declared.

PWE-132 ASSOCIATION BETWEEN SMOKING AND LIVER FIBROSIS IN PRIMARY BILIARY CIRRHOSIS

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Introduction Conflicting data for the role that cigarette smoking may play in Primary Biliary Cirrhosis (PBC) have been reported. Some studies have suggested an association of smoking with a more advanced fibrotic stage. The aim of the present study therefore was to assess the association between smoking and a) the severity of histological findings at the time of diagnosis, b) the immunological features of a genetically homogeneous and geographically defined population of PBC patients.
Methods Smoking history data were collected from 171 PBC patients of Cretan origin (163 female) using a standardised questionnaire. Diagnosis was based on standard biochemical, Immunological and histological criteria. Liver biopsy was performed in 148 patients at diagnosis. Liver fibrosis and histological inflammatory activity were semi-quantified according to a METAVIR-based classification system. Odds ratios (OR) were assessed using logistic regression analysis.
Results Smoking history prior to diagnosis was reported in 56 patients (32,7%%). Twenty-six patients (15,2%) were active smokers at diagnosis. Male gender (AOR 8.19, 95% CI: 3.014–11.937), alcohol intake >20 g/d (AOR, 2.20, 95% CI: 1.029–4.099), severe steatosis (AOR, 5.31, 95% CI: 2.019–9.919)), and F3–F4 fibrosis stage (AOR 1.21 95% CI: 1.015–3.031), but