PWE-135 DOES AFP PREDICT SURVIVAL IN PATIENTS WITH HEPATOCELLULAR CARCINOMA (HCC)?

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Introduction AFP is a tumour marker that is elevated in some patients with HCC and has been recommended as a method of screening for HCC in at risk patients. The authors wished to assess the level of AFP at diagnosis to determine if this was related with survival.

Methods A single centre, retrospective cohort analysis was performed. Patients with HCC were identified from the department's database (2008–2014). The diagnosis of HCC was made on internationally agreed criteria. Screening for HCC was based on 6-monthly liver ultrasound and serum measurement of AFP. The point of diagnosis was taken as the date when the diagnosis was confirmed radiological or histologically. The severity of patient's disease was scored using the Barcelona Liver Cancer Clinic (BCLC) classification. The serum AFP was measured at diagnosis. The end-point for the study was patient death.

Results 180 patients were identified in our cohort. The median age was 68 years (58–75), the number of males was 142 (79%), and aetiology was as follows: ALD (50, 39%), NASH (17, 13.3%), HCV (22, 17.2%), HBV (10, 7.8%), haemochromatosis (10, 7.8%), others 19 (14.8%). The stage of BCLC at presentation was: 0–18 (10%), A – 43 (24%), B 30 (16.7%), C 19 (10.6%), and D 25 (13.3%). Survival at 1 and 5 years from diagnosis was 69% and 46% respectively. AFP was available in 93 cases. AFP was elevated (>10) in 37 cases (40%). On univariate analysis the following variables were associated with a poor outcome at 1 year (AFP $p = 0.001$, tumour diameter 0.06) and 5 years (AFP $p < 0.0001$ and tumour diameter 0.04). The median AFP in survivors at 5 years was 4(3–6), and in non-survivors was 97(24–673). An AFP >100 at presentation was associated with an increased risk of death at 1 (OR 4.5(2–10) and 5 years (OR 7.2(3–17) irrespective of treatment modality employed.

Conclusion AFP does have prognostic utility in patients with HCC. It is a poor screening tool as it is not elevated in the majority of patients with HCC. New biomarkers are needed to help earlier detection when the disease is at a potentially curative stage.

Disclosure of Interest None Declared.

PWE-136 HEPATOCELLULAR CANCER DETECTED IN THE CIRRHOSIS SURVEILLANCE PROGRAMME HAVE BETTER OUTCOMES THAN THOSE DIAGNOSED SYMPTOMATICALLY

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Introduction Hepatocellular cancer (HCC) is a recognised complication of liver cirrhosis.[1] The cause of liver cirrhosis is varied, but the prevalence of certain conditions like non-alcoholic fatty liver disease (NAFLD) is rising.[2] This study aimed to identify the time trends of HCC over the last 10 years focusing on the aetiopathology of cirrhosis and modality of diagnosis. Hepatoma surveillance clinics have been established within the last 10 years, wherein cirrhotic patients are screened 6 monthly with ultrasound and alpha fetoprotein. We also aimed to compare the clinical characteristics of patients identified by this surveillance programme with those diagnosed when they presented with symptoms.

Methods Symptomatic HCC cases were identified by review of medical records coding with "Hepatocellular carcinoma" and the HPB multidisciplinary team meeting lists between 1/1/04 and 31/12/13. The hepatoma screening programme records were accessed to identify cases detected on routine screening. Electronic patient records were used to identify the underlying pathology, date of diagnosis, date of death and other baseline data.

Results During this ten year period 146 individuals were diagnosed with HCC of which 25 cases were detected by the surveillance programme. The mean incidence of HCC rose from 11.6/year during the period 2003–08 to 17.6/year in the years 2009–13. NAFLD was the most prevalent pathology in all years, but showed no significant change in incidence between these two time periods (42.1 vs. 36.6%). The mean age at diagnosis in the screened group was significantly lower (57.1 ± 8.3) than symptomatic (69 ± 9.7; $p < 0.001$). The rate of curative therapy (Resection, OLT) was higher in the screening group as opposed to the symptomatic (24 vs. 7.2%) as also palliative therapy (TACE, RFA) (20 vs. 13.5%). Transplant free survival was greater at 1 and 3 years in the screened group (35 vs. 25.5%; 20 vs. 8.2%), but no significant difference was noted at 5 years (0 vs. 2%).

Conclusion We demonstrated a significant increase in incidence of HCC within our population in the last five years in keeping with other published studies,[2] but no increase in NAFLD-related hepatoma. Within our population we have been able to show a positive effect of the hepatoma screening programme in terms of early age of diagnosis, suitability for a therapeutic option and better short and medium term survival rates.

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PWE-137 THE BSG HEPATOLOGY DATASET: DOES IT WORK IN PRACTICE?

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Introduction Clinical diagnosis and procedure coding for hospital admissions is mandatory in order to receive payment through the NHS tariff system. This does not extend into outpatient attendances where, to date, there has not been a nationally agreed process for coding. In order to address this, Connecting for Health (superseded by the Health and Social Care Information Centre), in 2013, invited clinical subspecialty societies to submit codes (limited to approximately 100) that would encapsulate 90% of their outpatient diagnoses. In this study we sought to validate the BSG hepatology subset* to see if it a) met the scope criteria for HSCIC and b) could be clinically useful in outpatient resource planning.

Methods We have studied the outpatient clinic letters in patients seen by hepatologists or hepatology nurse specialists in the

Gloucestershire outpatient departments. A spreadsheet with datafields for postcode, diagnoses and SNOMED mappings within the BSG dataset was developed. Microsoft MapPoint® was used to examine the geographic distribution of the cohort with the intention of improving follow-up arrangements for patients in relation to the location of community hospitals.

Results From 236 patients studied to date, 100% of patients could be assigned a code from within the dataset. However, 32.2% had alternative/co-existing diagnoses that could also be legitimately coded. In order to be clinically useful the outpatient record should contain datafields for both aetiology (specific) and stage of liver disease (generic). For example, the MapPoint exercise provided an insightful distinction between requirements for a viral hepatitis or cirrhosis clinic in community hospitals.

Conclusion The BSG hepatology dataset satisfies the scoping requirements of HSCIC but a single diagnostic datafield entry is not immediately useful to clinicians, service providers or commissioners since treatment pathways in terms of aetiology and management pathways in terms of stage need not correlate.

Disclosure of Interest None Declared.

PWE-138 SEPSIS INDUCED LIVER DYSFUNCTION: EARLY DIAGNOSTIC AND PROGNOSTIC MARKERS – THE SINGLETON EXPERIENCE

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Introduction To evaluate the incidence of liver dysfunction in septic patients and to determine the best available biomarker widely available as a diagnostic and prognostic marker of mortality.

Methods Adult inpatients (aged over 18) with positive blood cultures were identified from the microbiology database between Jan 2012 and June 2012. Total protein, albumin, bilirubin, ALP and ALT were recorded pre, peri and post sepsis. Peak derangement of liver function test (LFT) was evaluated. Hb, WCC, Plt and CRP were recorded on the date of positive blood culture. Patients fell into 3 groups; normal liver function, alcoholic liver disease and non-alcoholic liver disease. Kaplan Meier survivorship scores and ROC curves were calculated in SPSS$^{R.}$

Results 93 of 140 patients with positive blood cultures had abnormal LFTs during admission. 71 medical case records were available for review. 41 patients had normal LFTs prior to admission, 30 had pre-existing liver disease with abnormal LFTs (8 ALD; 22 with malignancy). The median age of the cohort was 66.7 yrs (23–93) with an equal sex distribution (35 M:37 F). 47/71 patients had deranged LFTs prior to documented bacteraemia, 19/71 on the day of bacteraemia and 5/71 after.

Bilirubin was the most sensitive parameter of the LFT in predicting mortality prior to organism culture,calculated using ROC curves with an area of 0.59. Following positive blood culture, bilirubin, ALT and CRP rises are indicators of mortality with areas of 0.64, 0.55 and 0.55 respectively. The ROC curves were not statistically significant for Hb, WCC and platelets prior to,or after the onset of bacteraemia.

4 patients died within 24 h, 4 between 24–72 h and 7 between 72 h and 30 days. The overall mortality was 30% lower than a comparative study at 44.7% (median age 66.7).[1] There was no statistically significant difference in mortality from sepsis with pre-existing liver disease (alcoholic or malignant) compared to no existing liver disease.

Sepsis-induced liver dysfunction was present on admission in 66% of septic patients with previously normal LFT's, 27% prior to positive blood cultures and 5% after positive blood cultures. This is comparative to an incidence at admission of 58.3% in a recent study.[1] The relative risk of mortality in the presence of sepsis induced liver injury was 1.82.

Conclusion Sepsis-induced liver dysfunction is common and clinically important to identify and has prognostic implications. Abnormal liver function can precede organism culture. There is currently no widely available gold standard test reflecting liver failure. Bilirubin is a diagnostic and prognostic marker of mortality before and after the onset of sepsis. ALT and CRP are useful after the onset of sepsis.

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PWE-139 TACE IN THE MANAGEMENT OF HCC IN A REGIONAL CENTRE: 5 YEAR ANALYSIS AND ASSESSMENT OF PREDICTORS OF OUTCOME

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Introduction Transarterial chemoembolisation (TACE) is a useful treatment for selected patients unsuitable for surgical management of hepatocellular carcinoma (HCC). The Hepatoma Arterial-embolization Prognostic (HAP) score has been proposed to be a a better predictor of post-TACE outcome than the Child-Pugh or BCLC (Barcelona clinic liver cancer) scores.[1]

Methods Patients diagnosed with HCC from January 2008 until December 2012 were identified from a prospectively compiled regional MDT database. Patients were risk stratified by Child Pugh grade, BCLC and HAP scores. Response to treatment was assessed by the mRECIST criteria (modified response evaluation criteria in solid tumours).[2] Relationship between risk scores and outcomes were assessed using Log-Rank tests and median survivals.

Results 282 patients were diagnosed with HCC during the study period. 101 of these patients (81 male, 20 female) mean age 66.0 (SD 10.1 years, range 37 to 85) were treated locally with TACE. Aetiology was alcoholic liver disease in 30%, unknown in 21%, non alcoholic liver disease 15%, viral hepatitis 12%, haemochromatosis 8%, other and mixed aetiology 14%. Baseline Child-Pugh grades A, B and C were 76, 21 and 3% respectively. BCLC Staging was A, B, C and D in 25, 58, 13 and 4% respectively. HAP Scores A, B, C and D were 14, 39, 37 and 11% respectively.

A total of 228 TACE procedures were performed (mean 2.3 per patient; range 1–6). In 10 (10 %) of patients, TACE was used in combination with radiofrequency ablation and in two (2%) cases it was successfully used as a bridge to transplant. 88% of patients had TACE as sole therapy. Radiological follow-up post TACE was performed in 208 occasions with 18% having a mRECIST complete response, 43% a partial response, 26% static disease and 14% progressive disease.