Radiological Response to Trans-Arterial Chemoembolisation (TACE) Determines Outcome in Patients with Hepato-Cellular Carcinoma (HCC)

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Introduction
TACE is considered standard of care treatment for patients with Barcelona Clinic for Liver Cancer (BCLC) stage B HCC. Imaging post treatment determines further treatment offered, based on response. Radiological response is categorised as complete response (CR), partial response (PR), stable disease (SD) or progressive disease (PD). Outcome can be predicted pre-TACE or following the first treatment based on a number of parameters (HAP and ART ref). We wanted to demonstrate the survival differences based on radiological response to TACE along when looking at patient outcome.

Methods
All HCC patients treated with TACE at our regional centre since 2010 were included for analysis. Demographic details were obtained with proportion of cirrhotic patients, aetiology of liver disease, BCLC stage, Child Pugh Score and Hepatoma Arterial-embolisation Prognosis (HAP) score being calculated. Survival from diagnosis was calculated as well as the number of TACE procedures.

Results
268 patients were identified as having HCC treated with TACE in this period. 84.7% were male and 82.8% were cirrhotic. Patients all had BCLC stage A or B disease and most (94.1%) Child Pugh A disease. Common causes of liver disease were: Alcohol (34.2%), NASH (28.8%) and Hepatitis C (10%). HAP score was: HAP A (38.2%), B (40.1%), C (19.5%) and D (2.2%). Overall median survival for all patients receiving TACE was 862 days (IQR: 766–957). There was a significant difference in survival based on response after initial TACE (CR: 1284, PR: 840, SD: 820 and PD 306 days, log rank p<0.0001) and response after final TACE (CR: 1316, PR: 926; SD 1159 and PD 684 days, log rank p<0.0001). There was no difference in survival based on Child Pugh stage (p=0.700) or if patients had BCLC A or B disease (p=0.533).

Abstract P185 Figure 1

Conclusions
Our data suggests that patients’ outcome following TACE for HCC relates to radiological response to treatment; those with CR having the longest survival and those with PD the shortest. Interestingly, those with PR and SD have similar outcomes based on response at first TACE and final TACE. Those with earlier stage disease (BCLC A) have similar outcomes to more advanced disease (BCLC B) suggesting that treatment determines outcome rather than initial stage of disease.
Methods A retrospective review of all patients treated with LTAD (Rocket®) between 2009 and 2019 in Royal Derby Hospital was undertaken and included the indication, frequency of hospital admission for LVP prior to and after LTAD insertion, MELD score, SBP prior to insertion, complications encountered following insertion, the need for re-insertion and duration of the drain.

Results 247 female patients had LTAD inserted under ultrasound guidance by experienced interventional radiologists. Ascites was secondary to liver cirrhosis in 22 patients (NASH 10; ALD 7; HCV 3; HFE 1; PBC 1) and heart failure/cardiac cirrhosis in 2 patients. The median MELD score was 14 (6–32). Median number of LVP in 6 months prior to LTAD insertion was 5 (0–15), with median interval of 2 weeks. Following LTAD insertion, median LVP in 6 months fell to 0 (0–5). SBP was diagnosed and treated in 7 patients before LTAD, 6 of whom remained on prophylaxis. No immediate complications were reported. Following LTAD, 15 patients (5/15 had pre-LTAD diagnosis) developed SBP at median 60 (20–425) days. Post-LTAD SBP was treated with antibiotics but 5 died. In 10 patients LTAD was removed after median 10 days of antibiotics and only 4 were replaced. For those who had replacement, 2 of 3 patients given prophylaxis suffered recurrent SBP. Other indications for removal were (leak 2; blockage 2). Patients needed hospitalization for median 19 (2–40) days in the 6 months prior to LTAD, and 12 (0–34) days in the following 6 months. In 11 of 20 patients with MELD score less than 21, the drain remained for 90 or more days while the median lifespan of LTAD in the whole cohort was 67 (6–465).

Conclusions In some patients LTAD achieved long term palliation without hospital admission but many developed SBP post-insertion. Nevertheless there was still a reduction in hospital stay. It was not possible to identify factors which might predict a successful outcome from this small cohort. Further research should focus on the impact of LTAD on quality of life measures, the role of antibiotic prophylaxis and better defining when LTAD is best employed in the natural history of patient’s with ascites.

Abstract P186 Figure 1 Relation between MELD score and lifespan of drain

Abstract P187 Table 1

<table>
<thead>
<tr>
<th>AMA tests</th>
<th>Positive AMA</th>
<th>Positive AMA with cholestasis</th>
<th>Diagnosis of PBC made</th>
<th>Treated with UDCA</th>
<th>Adequately dosed UDCA (13–15 mg/kg/day)</th>
<th>Adequate response to UDCA at 12 months (ALP &lt;1.67* ULN)</th>
<th>Referred for second line therapy</th>
</tr>
</thead>
<tbody>
<tr>
<td>20783</td>
<td>155</td>
<td>45</td>
<td>29</td>
<td>25/29</td>
<td>23/25</td>
<td>15/19</td>
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</table>

Introduction National guidelines on the management of primary biliary cholangitis (PBC) were published by the BSG and UKPBC in 2018. We examined a database of all patients who had undergone anti-mitochondrial antibody (AMA) testing over a five year period in a single centre (a district general hospital serving a population of 220,000), to examine adequacy of PBC diagnosis, ursodeoxycholic acid (UDCA) dosing, biochemical response, and referral for second line therapy in cases of UDCA intolerance or failure, using the thresholds and recommendations set out in the BSG UKPBC 2018 guidelines.

Methods A laboratory database search was carried out to capture all AMA test results from 01 April 2014–31 March 2019. Laboratory records for all patients with a positive AMA at any titre were cross referenced, and a registry created of all patients with positive AMA and biochemical evidence of cholestasis (elevated alkaline phosphatase (ALP) above the upper limit of normal), or a pre-existing diagnosis of PBC regardless of ALP. Medical records were examined of all patients on this registry to establish history of diagnosis of PBC, treatment history, dosing of UDCA in mg/kg, adequacy of response to UDCA, and referral for second line therapy with orecticholic acid (OCA) where relevant.

Results 20783 AMA tests were carried out with positive results for AMA at any titre recorded in 153 individual patients; 45 had evidence of cholestasis at the time of index AMA testing, 23 of whom had been diagnosed with PBC by the end of the study period. A further 6 AMA positive patients had an existing diagnosis of PBC with normalised ALP on treatment, giving a total PBC population of 29 patients. 25/29 (86%) of PBC patients were treated with UDCA, which was adequately dosed in 23/25 (92%). 15/19 (79%) of patients who had completed at least one year of adequately dosed UDCA responded adequately (ALP <1.67* upper limit normal); one patient could not tolerate UDCA. 4 patients were referred to a tertiary centre for second line therapy (3/4 (75%) of non-responders and the patient who did not tolerate UDCA).

Conclusions AMA testing was commonly carried out in a district general hospital setting, but the cohort of PBC patients identified was small. In those diagnosed with PBC, UDCA dosing was done well overall, but more than 20% of patients did not respond adequately or could not tolerate UDCA. Even in a small PBC cohort such as this, there are likely to be...