P64 IMPACT OF SUSPECTED LIVER DISEASE ON METHOTREXATE PRESCRIBING IN PATIENTS WITH PSORIASIS

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Introduction Methotrexate is a first line treatment for psoriasis. Routine monitoring includes liver function tests (LFTs) and type 3 procollagen peptide (P3NP). Methotrexate is known to cause alanine aminotransferase elevations however significant liver disease is rare, even in long term use. Where methotrexate is ineffective, contra-indicated or causes adverse drug reactions (ADRs), ustekinumab can be considered but at an additional cost of up to £8,550 per patient per annum. We investigated whether methotrexate was being under-prescribed due to suspected liver disease and whether these patients were referred to hepatology as advised by national guidance.

Method Electronic clinic letters were examined for all patients prescribed ustekinumab by the dermatology team at York Teaching Hospital Trust. Reasons for not prescribing, or stopping methotrexate were analysed. Where these included suspected liver disease, we identified risk factors for liver disease and metabolic syndrome and looked for evidence of referral of these patients to our hepatology department.

Results 14/146 (9.6%) patients were not prescribed methotrexate due to suspected liver disease. This was mostly due to increased LFTs and/or history of alcohol excess (>14 units/week) at baseline. Two (1.4%) further patients were thought to have cirrhosis. 25/146 (17%) patients were commenced on methotrexate but discontinued due to increases in LFTs and/or P3NP. The most common risk factors for liver disease and metabolic syndrome were body mass index >25 kg/m^2 27/41 (66%), alcohol excess 24/41 (59%) and hypertension 13/41 (32%). 40/41 (98%) patients had at least one risk factor for liver disease or metabolic syndrome. Only 12/41 (29%) patients were referred to hepatology, six patients underwent transient elastography (Fibroscan®) where results were all less than 7kPa ruling out significant liver disease. Only two patients with cirrhosis had an absolute contra-indication to methotrexate. The remaining 39/41 (95%) were under-prescribed methotrexate due to suspected liver disease, resulting in escalation of treatment and additional total drug costs of up to £333,450 per annum.

Conclusion Suspected liver disease limited the use of methotrexate in 28% of patients with psoriasis, ultimately leading to prescribing ustekinumab at a cost of up to £333,450 more per annum compared to methotrexate. More research is needed to determine if methotrexate could still be used in this population with appropriate hepatology monitoring.

P65 ELEVATED NUMBERS AND SIZE OF AGGREGATES OF IMMUNE CELLS PROTECTS AGAINST LIVER CANCER PROGRESSION

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Background Deaths from hepatocellular carcinoma (HCC) are rising. HCC typically develops in the setting of inflammation and chronic liver disease, where the immune environment can either promote or suppress cancer growth. Immune cells infiltrate within HCC are also suspected to play a key role in determining patient responses to treatments, but this is poorly understood. As the therapeutic options for patients with advanced HCC are changing, with a small minority (<15%) responding dramatically to immune checkpoint (PD-1/PD-L1) inhibition, the need to understand the complexities of the immune environment in liver cancers and develop strategies to improve survival for more patients, is ever more pressing.

Methods Surplus tissues from 58 patients with HCC undergoing diagnostic biopsy, presenting to the Newcastle upon Tyne Hospitals NHS Foundation Trust and recruited to our using SPSS statistical software package, with statistical significance considered as $p<0.05$ ethically approved CRUK funded research programme, underwent automated immunohistochemistry (Ventana) with antibodies to PD-1 and the neutrophil marker CD66b. Digital images were analysed using the Aperio Leica system paired with ImageScope software. The presence, size and numbers per mm^2 of rounded aggregates of immune cells in tumours were defined and clinicopathological associations explored using SPSS statistical software package, with statistical significance considered as $p<0.05$. Median values defined 'high' versus 'low' categories.

Results Immune aggregates were detected in HCC in 28/58 patients. Simple 'presence' was not significantly associated with any clinicopathological features. However, higher number mm^2 aggregates (n=14) was associated with less advanced TNM stage ($p=0.015$), longer time to radiological progression (20.9 vs 8.0 months, Kaplan-Meier, $p=0.033$) and longer survival (34.0 vs 20.9 months, $p=0.024$) compared to lower or absent cases (n=44). Furthermore, mean aggregate area correlated negatively with tumour size (Spearmans Rho -0.413, $p=0.029$). Patients with larger aggregates were more likely to have a maximal tumour diameter <5 cm (13/14 versus 21/44; Chi Square $p=0.006$). The majority of aggregates (89%) regardless of size had detectable PD-1 expression, which awaits post pandemic characterisation. Patients with larger aggregates were more likely to have high intratumoral CD66b positive neutrophils (8/12 versus 10/37; Chi square p= 0.013).

Conclusion Higher numbers and size of immune aggregates were associated with delayed tumour progression, highlighting the need to further define the tumour immune environment in patients with HCC.

P66 A PEER LED PARTNERSHIP ACHIEVES WHOLE SUBSTANCE MISUSE SERVICE HCV TESTING AND TREATMENT

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Background People who inject drugs (PWID) living in remote settings across the UK commonly experience levels of isolation with increased difficulty accessing hepatitis C (HCV) testing and treatment. Many individuals may be engaged with substance misuse services (SMS) while experiencing difficulties in navigating pathways and overcoming barriers to accessing