Conclusions Our data suggests the prevalence of precancerous gallbladder lesions are increasing in younger patients. Although a risk factor for cholelithiasis, BMI was not associated with disease progression. If occurring in a dysplasia-carcinoma sequence, mean age of diagnoses suggests a progression period of 20 years. Further research is required to explain the significant sex disparity and environmental risk factors for gallbladder dysplasia.

PWE-37 THE LONG-TERM FOLLOW-UP OF COVID-19 RELATED LIVER INJURY

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Introduction Acute COVID-19 infection is well-known to cause abnormalities in liver blood tests (LBTs). This study aimed to identify what are the long-term implications of COVID-19 on LBTs.

Methods This is a retrospective cohort study that examined the impact of COVID-19 infection on LBTs both during acute infection and for up to one year following hospital admission in 373 patients. Data analysis was done using Python using the SciPy and NumPy library. R factor was used to identify type of liver injury; hepatocellular, cholestatic or mixed. χ^2 test and Fisher exact was used for statistical analysis with $p < 0.05$ being considered significant.

Results During acute infection, 57.5% of patients showed LBT abnormalities with at least one raised liver blood test (ALT, ALP and/or bilirubin). Male patients were significantly more likely to develop LBT abnormalities than were female patients (74.5% versus 25.5%; $p < 0.001$). The rate of LBT abnormalities was significantly correlated with severity of COVID-19 infection, such that patients requiring ITU admission were more likely to have abnormal LBTs compared to those treated on a general ward (87% versus 51% respectively; $p < 0.001$). During short term follow-up (1-5 months post discharge), LBT abnormalities persisted in 31.3% of patients. LBT abnormalities persisted for up to 12 months in 24.0% of patients. In both the acute setting and long-term follow-up, cholestatic or mixed injury types were most commonly seen (acute; 41.1%, 41.6% respectively, long-term; 50.0%, 44.4% respectively).

Conclusion Our data suggests that up to one in four patients have persistent LBT abnormalities up to one year following COVID-19 infection. Future research is needed to investigate what the clinical significance of this LBT abnormalities is and whether there are interventions, pharmacological or otherwise, that could reduce COVID-19 related liver injury, both in the acute setting, and longer-term.

Keywords COVID-19, coronavirus, hepatology, liver function

PWE-38 THE IMPACT OF METABOLIC RISK FACTORS ON TREATED CHRONIC HEPATITIS B PATIENTS

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Introduction Chronic hepatitis B (CHB), as well as metabolic syndrome (MetS) and its associated risk factors, cause liver inflammation, fibrosis and cirrhosis which may subsequently lead to hepatocellular carcinoma (HCC) ^{1; 2}. The percentage of patients with the concomitant chronic hepatitis B and metabolic syndrome/non-alcoholic fatty liver disease (NAFLD) have significantly increased according to the latest reports, they stated that the prevalence of NAFLD in hepatitis B patients varies from 13.6% to 59.3% ^{3; 4}. However, the ramification of combined diseases on treated chronic hepatitis B patients is yet to be thoroughly explored.

Methods With the high number of chronic hepatitis B patients on treatment in our cohort; many have concomitant metabolic risk factors that may increase their risk of NAFLD, liver fibrosis, cirrhosis and subsequently hepatocellular carcinoma as well as cardiovascular risks. We aim to evaluate the extent of metabolic risk factors in our cohort of chronic hepatitis B patients and their relation to liver inflammation, fibrosis as well as renal impairment.

Our main objectives are to describe a demographic of a large cohort of patients who are on treatment for chronic hepatitis B, focusing on metabolic risk factors, to check for correlation between metabolic risk factors and liver inflammation and/or fibrosis, and to understand the effect of clinical practice on those patients.

We conducted a retrospective, descriptive, clinical-based study at Barts Health NHS Trust, London, UK. Patients who are followed for chronic hepatitis B and currently on antiviral treatment were considered for this study as part of a service evaluation. We included patients with positive HBsAg who are on antiviral treatment with undetected HBV DNA viral load. We excluded patients who have other comorbidities that can influence the overall results. For those who met inclusion criteria and on viral suppression, data were extracted from Barts health electronic patient records by SNOMED code with relevant demographic and clinical data including latest hepatic enzymes (ALT, AST), platelet count, Hemoglobin A1C (HBA1C), cholesterol, high density lipoprotein (HDL), transient elastography (TE) results, Biopsies and renal function including Glomerular filtration rate (eGFR) and Serum Creatinine levels. We used IBM SPSS software package v.24.0 for statistical analysis. The number of values (n), median ($\bar{x}$), and percentage (%), as well as Interquartile Range (IQR), were used for describing the data. Association between metabolic risk factors and risk of liver inflammation was assessed by correlation and regression analysis techniques using both Pearson's correlation (r) and Spearman's rank correlation along with univariate and multivariate regression analysis.

Results Eight hundred and eighty-six patients were identified as chronic hepatitis B patient on Antiviral Treatment. However, fifteen patients were excluded as they were only on Prophylactic Antiviral Treatment due to Positive Hepatitis B Core antibodies. Fifteen percent (n=135) were excluded due to detectable viral replication, and fourteen percent (n=126) were excluded due to other chronic conditions that may interfere with the overall results.

It was recognised in this study that nearly half of included patients were of the middle-aged group with male predominance. Given the marked gender difference in our study population, we would highlight that other gender-related results may get affected by this difference. Another pronounced result was the ethnic distribution in our study population; most of included patients were of African/Other Black/Caribbean, Asian or South Asian descents. This result can reflect the worldwide