

AZA were included. The incidence of side effects, initial and maximum dose tolerated and discontinuation time was noted.

Blood sample (at-80C) of these patients were retrieved from the biorepository. Age and sex matched group of healthy volunteers served as the control group. DNA was isolated (Qiagen) (n=729 AZA;179 controls). Genotyping of NUDT15C415T(rs116855232;p.R139C) carried out employing Taq-man probes on Real-time PCR(Step one-Life tech).

The association of presence of risk variant of NUDT15 with the development of leucopenia, other side effects and maximum tolerated dosage was evaluated.

**Results** 711/729 patients were included in the analysis (18 inadequate DNA). (IDDF2018-ABS-0269 Table1)

There was no significant differences in the frequency of C/C, C/T and T/T genotypes of NUDT15p.R139C between AZA group (82.28%, 15.75%–1.97%) and control group (88.27%,11.73%–0%).

79/711 patients developed leucopenia (26/585 C/C; 42/112C/T; 11/14 T/T). Development of leucopenia was significantly higher in C/T and T/T compared to C/C (OR 15.609; CI 9.198–26.490) (table 1). The sensitivity (67.08%) and specificity (88.45%) for predicting AZA-induced leucopenia. C/T group discontinued treatment significantly earlier than C/C genotype.

There was no incidence of hepatitis/pancreatitis in C/T and T/T groups and no significant difference in the mean dose tolerated wild (C/C) vs risk variant (C/T,T/T) carriers(1.33 mg/kg vs 1.196 mg/kg;p=0.014).

**Abstract IDDF2018-ABS-0269 Table 1** Base line characteristics of study population results

Age at onset (Median±SD)	28±14.589
Gender (M/F)	1.54: 1
UC: CD: IBDU	358 (50.35%): 323 (45.42%): 30(4.22%)
Extent of involvement (UC)	E1:50(13.97%); E2:197 (55.03%); E3: 111 (31%)
Disease location (CD)	L1: 117 (36.22%); L2:69 (21.36%); L3:130(40.2%); L4: 7 (2.16%)
Disease behaviour (CD)	B1: 197 (60.99%); B2:91 (28.17%); B3: 35 (10.8%)
Smoking	59 (8.29%)
Age at start of AZA (Median±SD)	35±13
Duration of AZA therapy in months	21.52±18.20 (1–145)
Aza induced side effects	
GI intolerance	22
pancreatitis	5
Leukopenia	79
skin allergy	9
Headache	9
Hepatitis	5

**Conclusions** NUDT15 risk genotype frequency is around 15% in Indian population and can predict the development of leucopenia. The results suggest thiopurines should be avoided in homozygous T/T and low dose for C/T heterozygous genotypes. This has important implications for clinical practice and is a step towards personalised management of IBD.

## Clinical Hepatology

### IDDF2018-ABS-0011 USE OF ACOUSTIC RADIATION FORCE IMPULSE (ARFI) IMAGING FOR THE DIAGNOSIS OF MALIGNANT LIVER TUMOUR AMONG PATIENTS WITH LIVER TUMOURS: A CROSS-SECTIONAL STUDY

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**Background** Acoustic Radiation Force Impulse (ARFI) imaging is an elastography method to evaluate tissue stiffness. This study aims to evaluate the use of ARFI to non-invasively determine if a liver mass is benign or malignant.

**Methods** This is a two-year cross-sectional study of patients with liver tumours who underwent liver elastography using ARFI at SLMC Quezon City (QC) and Global City (GC). All cases were diagnosed using histopathology, CT, MRI or ultrasound. Liver masses were grouped to either benign or malignant according to their aetiology, and the mean ARFI value per group were computed. Receiver operating characteristic (ROC) analysis was performed to evaluate the diagnostic accuracy of the ARFI measurement. The optimal cut-off value was chosen to maximise the sensitivity and specificity. A p value less than 0.05 was considered statistically significant.

**Results** Ninety cases of patients with liver mass with definite aetiology and who underwent ARFI were included. 23.3% of the patients had a history of other malignancy, and 35.5% had cirrhosis. 81.1% of the patients had malignant liver masses. Average ARFI value of malignant masses was 2.24 m/s while that of benign is 1.88 m/s (p=0.113). Based on the ROC curve, a cut off ARFI value of 1.965 m/s has the highest sensitivity and specificity to distinguish malignant from benign liver masses at 65.8% and 58.8%, respectively. Using a cut off ARFI value of 1.02 m/s, the sensitivity and specificity of diagnosing a liver mass to be malignant are 90.4% and 23.5%, respectively. The calculated positive likelihood ratio is 1.18 and negative likelihood ratio of 0.41.

**Conclusions** ARFI imaging is a promising method to characterise a liver mass as benign or malignant. It can accurately and objectively assess the stiffness of the liver mass in a non-invasive way. Any liver mass with an ARFI value of.

### IDDF2018-ABS-0025 THE EFFECT OF VITAMIN E (MIXED TOCOTRIENOL) ON THE LIVER STIFFNESS MEASUREMENT MEASURED BY TRANSIENT ELASTOGRAPHY (FIBROSCAN) AMONG NAFLD PATIENTS

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**Background** Vitamin E has been shown to slow down progression or cause regression of fibrosis stage among NAFLD patients. Transient Elastography (FibroScan) is a non-invasive tool that has been used to determine the stage of fibrosis based on Liver Stiffness Measurement (LSM) among NAFLD patients and may be used for treatment monitoring. This

study aims to determine the effects of vitamin E taken once a day on the LSM.

**Methods** NAFLD patients diagnosed by ultrasound who met the inclusion criteria were enrolled in the study. Liver Stiffness Measurement (LSM) measured by FibroScan at baseline and at the end of 3 months. A change in the LSM was the primary objective. Chi-Square analysis was used to measure the change of LSM pre and post-treatment. P value less than 0.05 was considered significant.

Patients were assigned to either the Life style Modification Advice Group (LMAG)–with nutritional counselling and advise to exercise–or the Treatment Group (Vitamin E as Mixed Tocotrienol 100 mg daily for 3 months plus lifestyle modification advise).

**Results** Fifty-seven percent (38/67) of patients enrolled in both arms of the study improved – with a decrease in their LSM measurements – but 43% (29 of 67 (43%) did not.

Of those who improved, 79% (30/38) were from the Treatment Group (Vitamin E) and 21% (8/38) were from the LMAG.

Twenty-nine (29) patients did not improve: 79% (23/29) from LMAG and only 6/29 (21%) from the Treatment Group. Chi-square analysis showed that treatment with Vitamin E had a significant effect ( $p \leq 0.05$ ) on the improvement of LSM.

**Conclusions** Vitamin E (mixed Tocotrienol) 100 mg daily for 3 months could decrease the LSM among NAFLD patients.

IDDF2018-ABS-0027

#### INFLUENCE OF HEPATIC STEATOSIS ON THE TREATMENT OUTCOMES OF ENTECAVIR AND TENOFOVIR IN PATIENTS WITH CHRONIC HEPATITIS B

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**Background** The influence of hepatic steatosis (HS) on chronic hepatitis B (CHB) is not well-known. We evaluated the influence of HS, assessed using controlled attenuated parameter (CAP) of transient elastography (TE), on the treatment outcomes in CHB patients who initiated antiviral therapy (AVT).

**Methods** Among 1,658 CHB patients who initiated AVT using entecavir or tenofovir between 2007 and 2016, 334 patients with available TE results at the time of initiating AVT were recruited. The cutoff CAP value for the diagnosis of HS was 238 dB/m.

**Results** Of the study population, 146 (43.7%) patients had HS. During the follow-up period (median 38.6 months), 303 (90.7%) and 25 (7.5%) patients experienced complete virological response (CVR) (HBV DNA  $p=0.380$ ). However, lower CAP value was independently associated with the higher probability of CVR achievement (hazard ratio [HR]=0.996;  $p=0.004$ ) and HBeAg loss among HBeAg positive patients (HR=0.989;  $p=0.031$ ). The cumulative incidence of HBeAg loss among HBeAg positive patients was significantly higher in patients without HS than that of patients with HS ( $p=0.022$ , log-rank test).

**Conclusions** The HS was not correlated with HCC development in patients who initiated AVT using entecavir and tenofovir. However, HS was negatively correlated with the risk of

CVR achievement and HBeAg loss among HBeAg positive patients.

IDDF2018-ABS-0028

#### RISK ASSESSMENT IN PATIENTS TREATED WITH TACE DUE TO RECURRENT HEPATOCELLULAR CARCINOMA AFTER CURATIVE RESECTION

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**Background** The hepatoma arterial-embolization prognostic (HAP) score and its several modifications predict survival outcomes in patients with hepatocellular carcinoma (HCC) treated with trans-arterial chemoembolization (TACE). We investigated whether HAP-based risk score is applicable in patients treated with TACE due to recurrent HCC after curative resection.

**Methods** A total of 448 patients with HCC who underwent curative resection between 2003 and 2015 were enrolled. Cox regression analyses and area under the curves (AUC) were used to identify risk factors and to calculate the predictive performance of risk scores, respectively.

**Results** The median age of the study population (378 men, 70 female) was 59.4 years. The median time from resection to recurrence was 17.7 (interquartile range, 7.3–37.1) months. Multivariate analysis indicated that alpha-fetoprotein >400 ng/mL (hazard ratio [HR]=2.367; 95% confidence interval [CI] 1.603–3.495), and serum albumin <3.6 g/dL (HR=2.072; 95% CI 1.449–2.964), tumour number  $\geq 2$  (HR=1.813; 95% CI 1.362–2.415), tumour size >7 cm (HR=0.971; 95% CI 0.416–2.269), segmental portal vein invasion (HR=2.695, 95% CI, 1.620–4.485), and time from resection to recurrence <2 years (HR=1.630, 95% CI 1.287–2.066) were the independent predictors for survival (all  $p < 0.05$ ). The AUC to predict survival at 3 and 5 years was 0.713, and 0.649, respectively, for modified HAP-II, which were higher than those of HAP (0.602 and 0.584) and mHAP (0.606 and 0.589). When HAP<sub>postop</sub> was established according to multivariate analysis, the AUC to predict survival at 3 and 5 years were 0.799 and 0.735, respectively, which were significantly higher than those of other HAP-based models (all  $p < 0.05$ ).

**Conclusions** The HAP-based risk models significantly predicted survival in patients treated with TACE due to recurrent HCC after curative resection. However, HAP<sub>postop</sub> showed superior performance in this cohort.

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#### CLINICAL AND HISTOLOGICAL FEATURES OF PATIENTS WITH ALCOHOLIC LIVER DISEASE

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**Background** Alcohol-attributable burden on global health is increasing, and the relationship between population alcohol consumption and liver-related deaths is strong. Longstanding scientific and clinical work has led to a relatively thorough, if