Adjustments for age, gender, systolic blood pressure, fasting plasma glucose, γ -glutamyl transpeptidase, high-density lipoprotein, triglycerides, total cholesterol and albumin, nonalcoholic fatty liver disease and prevalent atrial fibrillation remained statistically significant (OR 2.76, 95% CI 1.32–5.77).

Abstract IDDF2018-ABS-0083 Figure 1

Conclusions Our results show that nonalcoholic fatty liver disease is associated with an increased risk of atrial fibrillation in an elderly Chinese population.

IDDF2018-ABS-0098

PREOPERATIVE PREDICTION OF MICROVASCULAR INVASION IN HEPATOCELLULAR CANCER: A RADIOMICS MODEL USING Gd-EOB-DTPA ENHANCED MRI

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Background Preoperative prediction of microvascular invasion (MVI) in patients with hepatocellular cancer (HCC) is important for surgery strategy making. We aimed to develop and validate a combined intratumoral, and peritumoral radiomics model based on Gadolinium-ethoxybenzyl-diethylenetriamine (Gd-EOB-DTPA) enhanced magnetic resonance imaging (MRI) for preoperative prediction of MVI in primary HCC patients.

Methods This study included a training cohort of 110 HCC patients and a validating cohort of 50 HCC patients. All the patients underwent preoperative Gd-EOB-DTPA enhanced MRI examination and curative hepatectomy. The volumes of interest (VOIs) around the hepatic lesions including intratumoral and peritumoral regions were manually delineated in the hepatobiliary phase of MRI images, from which quantitative features were extracted and analysed. In the training cohort, the machine-learning method was applied to dimensionality reduction and selection of the extracted features.

Results The proportion of MVI-positive patients was 38.2% and 40.0% in the training and validation cohort respectively. Supervised machine-learning selected ten features to establish a predictive model for MVI. The area under the receiver

operating characteristic curve (AUC), sensitivity, specificity of the combined intratumoral and peritumoral radiomics model in the training and validation cohort were 0.85 (95% confidence interval [CI], 0.77–0.93), 88.2%, 76.2% and 0.83 (95% CI, 0.71–0.95), 90.0%, 75.0%, respectively.

Conclusions We evaluate quantitative Gd-EOB-DTPA enhanced MRI image features of both intratumoral and peritumoral regions and provided an effective radiomics-based model for prediction of MVI in HCC patients, and may, therefore, assist clinicians to make precise treatment decision before the surgery.

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NO RESISTANCE TO TENOFOVIR ALAFENAMIDE DETECTED THROUGH 96 WEEKS OF TREATMENT IN PATIENTS WITH CHRONIC HEPATITIS B

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Background Presented herein are the post Week 48 through Week 96 resistance analyses for 2 Phase 3 studies evaluating tenofovir alafenamide (TAF) versus tenofovir disoproxil fumarate (TDF) for the treatment of chronic hepatitis B (CHB) in HBeAg + and HBeAg- adults.

Methods HBV pol/RT population or deep sequencing was conducted for patients with ≥ 24 weeks of treatment with viremia (HBV DNA ≥ 69 IU/mL) at Week 96 or at early discontinuation post Week 48. Deep sequencing was conducted for patients with HBV DNA > 159 IU/mL and sequence changes at the consensus sequence level (15%) are reported. Virologic breakthrough (VB) was defined as HBV DNA ≥ 69 IU/mL after achieving < 69 IU/mL or a ≥ 1.0 -log₁₀ increase from nadir. Phenotypic analysis using recombinant HBV in HepG2 cells was performed for VB patients who were adherent to study drug (plasma drug levels), patients with conserved site substitutions, or for polymorphic substitutions emergent in > 1 patient.

Results 1298 patients were randomised (TAF: n=866; TDF: n=432). A similar percentage of patients in the TAF or TDF arms qualified for sequence analysis post Week 48 through Week 96 of treatment (TAF: 10.5%, TDF: 10.9%). In the TAF arm, 87 patients qualified at Week 96: 32 had polymorphic site substitutions, and 9 had conserved site substitutions. In the TDF arm, 45 patients qualified at Week 96: 11 had polymorphic site substitutions, and 2 had conserved site substitutions. At Week 96, a small percentage of patients experienced VB (TAF: 2.4%, TDF: 3.0%), and VB was often associated with documented study drug nonadherence (TAF: 22%, TDF: 46%). 27 patients qualified for phenotypic analysis post Week 48 through Week 96 (TAF: n=19, TDF: n=8) and no patient isolates tested showed a reduction in susceptibility to TAF or tenofovir, respectively.