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PREVALENCE OF HEPATITIS C AMONG TYPE 2 DIABETES MELLITUS PATIENTS IN A SINGLE CENTER TERTIARY HOSPITAL IN QUEZON CITY, PHILIPPINES

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Introduction There is a growing body of literature between Hepatitis C virus infection and T2DM on the framework of insulin resistance. There have recent studies showing Diabetes as a strong risk factor for the development of Hepatitis C in some Asian countries. However, there are still gaps in the literature and data is still inconclusive. In the Philippines, no local study on the prevalence of HCV among diabetics is available.

This is a pilot study that aims to determine the prevalence of HCV infection among diabetic patients seen at our institution.

Methodology This is a descriptive cross-sectional epidemiological study. Written consent was secured, a consecutive sampling of 318 known diabetics was done and data was collected using a checklist. A drop of whole blood was collected by the investigator by finger prick method and tested for HCV antibodies using RAPIDQuick screening test. Frequency and proportion and median and range were used to describe the clinical characteristics of the enrolled subjects. STATA 15.0 was used for data analysis.

Results 318 diabetic patients were tested for HCV. No HCV seropositivity was noted. The median age was 55 years and a half were female. 22% were obese. The following risk factors for HCV were reported: more than half had reported unprotected sex, shares nail cutters, toothbrush, and razors. 261 (82%) had abnormal FBS and median HbA1c was 7.5%. Similarly, 3/4 had abnormal triglyceride levels. On average, more than half of the patients are insulin-requiring for 4 years have T2DM for four years.

Conclusions Despite a negative study, we would like to continue this study to determine the association between the two diseases and in the future can contribute to the local statistics of Hepatitis C.

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A DIFFERENCE-IN-DIFFERENCE BASED CT RADIOMICS ALGORITHM FOR DETECTING RECURRENCE OF HEPATOCELLULAR CARCINOMA AFTER RESECTION OR ABLATION: AN EXPLORATORY ANALYSIS

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Background Early detection of recurrent hepatocellular carcinoma (HCC) can make early intervention available. This study aimed to find radiomics features to improve the performance of detecting recurrence based on computer tomography (CT).

Methods The retrospective study included a training cohort of 35 patients and a validation cohort of 62 patients. A series of follow-up CT images of patients with primary HCC after

surgical resection or ablation were collected from January 2009 to April 2018. Tumor and liver regions of interest (ROI) were manually delineated on CT1 (within one month after resection or ablation), CT2 (when suspicious recurrence was observed) and CT3 (when confirmed recurrence was observed). Radiomics features were extracted and a radiomics algorithm, 'difference-in-difference' (DD) was established for detecting recurrence. Folded cross validation (CV) was used.

Results A total of 256 follow-up images were available for analysis. The training cohort was divided into recurrence and no recurrence group, with 18 patients and 17 patients, respectively. Our radiomics algorithm selected 17 DD radiomics features for detecting recurrence using univariable analysis. Principle component analysis showed that an Area Under the Receiver Operator Characteristic Curve (AUC) of the first principle component of 17 selected DD features achieved 0.97 (95% CI: 0.92–1.00). Leave-one-out CV produced an error of 18.2% and 10-fold CV with a highest error as 19.1%. Incorporating post-treatment alpha-fetoprotein (AFP), there was no significant increase in AUC compared with the first principal component of 17 DD features alone (0.97 vs 0.97, Z=0.346, P=0.730). In the validation cohort, univariable analysis showed that the variation trend of radiomics features was suggestive of recurrence.

Conclusions Difference-in-difference of CT radiomics features improved performance of conventional CT and was superior to AFP in detecting recurrence of HCC.

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NOVEL PROGNOSTIC NOMOGRAMS BASED ON INFLAMMATION-RELATED MARKERS FOR PATIENTS WITH HEPATOCELLULAR CARCINOMA UNDERWENT HEPATECTOMY

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Background Hepatocellular carcinoma (HCC) is an aggressive disease with high recurrence rate. However, current staging systems were lack of predictive capacity for HCC recurrence after hepatic resection. We aimed to develop prognostic nomograms based on inflammation-related markers for HCC patients underwent hepatectomy.

Methods We retrospectively recruited 1350 surgically treated HCC patients from two medical centres between November 2003 and December 2017. All established inflammation-related markers were enrolled in analysis for selecting the best in predicting recurrence-free survival (RFS) and overall survival (OS). Independent prognostic factors were identified by cox regression analyses. Nomograms for estimating the probability of 1-, 2-, 3-year RFS and OS were established, and validated internally and externally. The performance, discrimination and calibration of nomograms were assessed, and compared with conventional staging systems including Barcelona Clinic Liver Cancer (BCLC) and 7th American Joint Committee on Cancer (AJCC).

Results Gamma-glutamyl transpeptidase to platelet ratio (GPR) was the only inflammation-related factor that independently correlated with both RFS and OS. GPR, international normalized ratio (INR), alpha-fetoprotein (AFP), microvascular invasion, satellite lesions, tumour number, tumour diameter and macrovascular invasion were used to construct nomogram for

Abstract IDDF2019-ABS-0066 Figure 1 Nomograms for predicting recurrence free survival (A) and overall survival (B)

RFS while GPR, AFP, microvascular invasion, satellite lesions and macrovascular invasion were for OS (figure 1). In the training cohort, the C-index of nomogram was 0.713 (95% confidence interval [CI], 0.690–0.738) for RFS and 0.774 (95%CI, 0.747–0.801) for OS. These results received both internal and external validation with C-index of 0.707 (95% CI, 0.662–0.753) and 0.710 (95%CI, 0.665–0.756) for RFS, and 0.747 (95%CI, 0.686–0.807) and 0.711 (95%CI, 0.641–0.780) for OS, respectively. The calibration curves for RFS and OS rates were all well-matched with the standard lines. The nomograms showed superior accuracy to existed staging systems ($P < 0.001$).

Conclusions The novel nomograms based on preoperative inflammation-related markers are of high efficacy in predicting survival of HCC patients after hepatectomy, which will be valuable in guiding postoperative interventions and follow-ups.

IDDF2019-ABS-0070 LIVER RESECTION VERSUS TRANSARTERIAL CHEMOEMBOLIZATION FOR THE TREATMENT OF INTERMEDIATE-STAGE HEPATOCELLULAR CARCINOMA

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Background The role of transarterial chemoembolization (TACE) as the standard therapy for intermediate-stage hepatocellular carcinoma (HCC) is being challenged by increasing studies supporting liver resection (LR), but evidence of survival benefits of LR is lacking. We aimed to compare the overall survival (OS) of LR with that of TACE for the treatment of intermediate-stage HCC in cirrhotic patients.

Methods A Markov model, comparing LR with TACE over 15 years, was constructed based on data from 31 literatures. Additionally, external validation of the model was performed using a data set (n=1735; LR: 701; TACE: 1034) from a

tertiary center with propensity score matching method. We conducted one-way and two-way sensitivity analyses, in addition to a Monte Carlo analysis with 10,000 patients allocated for each arm.

Results The mean expected survival periods and survival percentages at 5 years were 77.8 months, 47.1% in LR group, and 48.6 months, 25.7% in TACE group, respectively. Sensitivity analyses demonstrated that initial LR was the more favorable treatment. The 95% CI for the difference in OS was 2.42–2.46 years between the two groups ($P < 0.001$). In the validation set, the 5-year survival proportions after LR were significantly better than those after TACE before (40.2% vs. 25.9%, $P < 0.001$) and after matching (43.2% vs. 30.9%, $P < 0.001$), which was comparable to the model results.

Conclusions LR may provide a survival benefit over TACE for cirrhotic patients with intermediate-stage HCC.

IDDF2019-ABS-0076 QUALITY OF CARE AND COST ANALYSIS FOR CIRRHOSIS MANAGEMENT IN A LARGE UNIVERSITY-BASED HOSPITAL IN THAILAND

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Background As one of the leading causes of death in Thailand, the accurate data about the quality of care, costs and outcome of cirrhotic patients are needed. The aims of this study were to examine the quality of care according to the American Association for the Study of Liver Diseases (AASLD) practice guidelines, costs and outcome in cirrhotic patients in a large university-based hospital.

Methods After IRB approved, cohort study was conducted involving all outpatients with cirrhosis in Phramongkutklao hospital during 2017 through 2018. Medical database and