Conclusions False positive diagnosis of advanced fibrosis in NAFLD patients can be reduced and unnecessary liver biopsy can potentially be avoided by repeat LSM.

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HEPATIC RESECTION VERSUS TRANSCATHETER ARTERIAL CHEMOEMBOLIZATION IN RESECTABLE INFILTRATIVE HEPATOCELLULAR CARCINOMA: A PROPENSITY SCORE WEIGHTED LANDMARK STUDY

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Background Patients with infiltrative hepatocellular carcinoma (iHCC) have a worse prognosis than those with other types of HCC and limited choices of treatments. The efficacy of hepatic resection in iHCC patients was unclear, especially comparing with other treatments. We aim to compare the efficacy of hepatic resection (HR) and transcatheter arterial chemoembolization (TACE) for patients with resectable iHCC

Methods We retrospectively enrolled patients with resectable iHCC who were treated by HR or TACE from four clinical centers. Their overall survival (OS) time was calculated and compared by Log-Rank test. A propensity score-matched (PSM) analysis was performed to reduce selection bias.

Results From January 2010 to December 2017, 178 patients with resectable iHCC were collected (124 patients received HR and 54 patients received TACE) and entered into 6,9,12-month landmark analysis. The median overall survival (OS) time was significantly longer in patients treated by HR than TACE (19 vs 11 months, $p=0.0041$). Landmark analysis limiting survivors after 6, 9, 12 months also showed the benefit of HR over TACE in multi-variables COX regression (all $p<0.01$). Patients with tumors located in both liver lobes or portal hypertension tended to receive HR rather than TACE. After propensity score matched, 46 pairs were compared and HR obtained better overall survival than TACE (median OS time: 29 vs 11 months, $p=0.001$). The multi-variables analysis indicated vascular invasion as an independent predictor for worse OS in 6-month landmark subgroup (HR: 2.231, 95%CI: 1.364–3.649, $p=0.001$), especially for patients with the major trunk of portal vein involved.

Conclusions HR might be an optimal choice for patients with resectable iHCC due to its better survival benefit than TACE. Patients with thrombosis in the major trunk of portal vein need multiple department team discussion to decide which therapy to be performed.

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PREDICTORS OF SURVIVAL FOR HEPATOCELLULAR CARCINOMA TREATED WITH ULTRASOUND-GUIDED PERCUTANEOUS RADIOFREQUENCY ABLATION

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Background Radiofrequency ablation (RFA) is a widely used technique for treating hepatocellular carcinoma (HCC). Based on current data, tumor size and liver function are predictors

of survival for HCC. Predictors of Survival in the Philippines may be different from other countries. We aimed to determine the independent predictors of survival for HCC patients undergoing RFA.

Methods RFA was performed on 181 consecutive HCC patients from June 2007 to November 2018. Survival was estimated using Kaplan-Meier and multivariate analysis of survival predictors were analyzed using Cox regression.

Results After a median follow-up of 19.9 months, the 1-,3- and 5-year overall survival rates were 81.4%, 53.7% and 30.4%, respectively. Local tumor progression and intrahepatic distant recurrence were observed in 42.5% (77/181) and 30.9% (56/181), respectively. Patients with serum albumin ≥ 3.5 g/L had better survival compared to serum albumin < 3.5 g/L (1,3&5 years: =69.5%,47.2%,38.9% vs 39.1%,0%,0%; $p<0.001$ – (figure 1). Other factors associated with survival on univariate analysis included: Cirrhosis($p=0.0001$), Child-pugh class($p=0.026$), RFA time ($p=0.011$), Platelet count $< 150 \times 10^9/L$ ($p=0.002$), INR ($p<0.001$) and total bilirubin($p=0.026$). The sole independent predictor of survival on multivariate analysis was serum albumin(OR=3.40;95%CI= 0.196–0.442; $p<0.001$).

Abstract IDDF2019-ABS-0280 Figure 1

Conclusions In patients with HCC treated with RFA, serum albumin ≥ 3.5 g/L appear to result in better survival.

IDDF2019-ABS-0281

PREDICTORS OF TECHNIQUE EFFECTIVENESS FOR ULTRASOUND-GUIDED PERCUTANEOUS RADIOFREQUENCY ABLATION FOR HEPATOCELLULAR CARCINOMA

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Background Radiofrequency ablation (RFA) is a widely used technique for treating hepatocellular carcinoma (HCC).

However, not all HCC is completely ablated in 1 session. We aimed to determine the independent predictors of complete ablation (CA1) and primary technique effectiveness (PTE) of RFA.

Methods RFA was performed on 298 consecutive HCC patients from June 2007 to November 2018. CA1 was defined as the absence of contrast enhancement (enhancing tumors) or hypodensity that encompasses the original tumor location (non-enhancing tumors) on CT-scan performed 1-month post-RFA. PTE pertains to the ability to completely ablate a tumor after ≥ 1 session. Tumors that were within 5 mm of a large vessel or vital structure were considered high-risk. Multiple logistic regression analysis was used to determine independent predictors.

Results A total of 540 tumors were ablated with a mean size of 2.9 ± 1.7 cm. CA1 (<3 cm=94.3%; 3.1–5 cm=85.2%; >5 cm=70.7% - (figure 1) and PTE rates (<3 cm=95.9%; 3.1–5 cm=91.2%; >5 cm=90.4%) were higher for smaller tumors ($p < 0.001$). Isoechoic tumors had the highest CA1 (93.9%; $p < 0.001$) and PTE rates (96.9%; $p = 0.017$), while mixed echoic tumors had the lowest CA1 (76%; $p < 0.001$) and PTE rates (86.6%; $p = 0.017$). Other associated factors for CA1 on univariate analysis include tumor size, high risk tumor, tumors near a vital structure, and RFA time. However, the only independent predictor of both CA1 (OR[95%CI]=<3 cm=13.15 [0.02–0.25]; 3.1–5 cm=2.03[0.21–1.13]) and PTE rates (OR [95%CI]= <3 cm=2.7[0.13–1.05]; 3.1–5 cm=0.99[0.36–2.81]) on multivariate analysis was tumor size ($p < 0.001$).

Completely Ablated after 1 RFA session (n=540)

Abstract IDDF2019-ABS-0281 Figure 1

Study or Subgroup	PEG		Lactulose		Weight	Risk Ratio M-H, Fixed, 95% CI
	Events	Total	Events	Total		
Rahimi 2014	21	23	13	25	25.7%	1.76 [1.18, 2.61]
Shahata 2018	47	50	36	50	74.3%	1.31 [1.08, 1.57]
Total (95% CI)		73		75	100.0%	1.42 [1.19, 1.69]
Total events	68		49			
Heterogeneity: Chi ² = 1.89, df = 1 (P = 0.17); I ² = 47%						
Test for overall effect: Z = 3.94 (P < 0.0001)						

Abstract IDDF2019-ABS-0295 Figure 1 HE resolution

Conclusions RFA results in satisfactory local tumor control of HCC. Complete tumor ablation is substantial in lesions that do not exceed 5 cm.

IDDF2019-ABS-0295

POLYETHYLENE GLYCOL VERSUS LACTULOSE FOR THE TREATMENT OF OVERT HEPATIC ENCEPHALOPATHY: A META-ANALYSIS

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Background Hepatic encephalopathy (HE) is one of the most common causes of hospitalization in patients with cirrhosis. It poses an increasingly recognized burden on the health care system and the patient's quality of life. Lactulose has been the standard pharmacologic treatment for overt HE for a long time. Recently, polyethylene glycol (PEG) electrolyte solution has been studied as an alternative but only limited research has shown positive effects.

Methods A comprehensive literature search from the PubMed Central, Embase, Cochrane Library, and Clinical Trials Registry was performed with the following search terms: polyethylene glycol, lactulose, and hepatic encephalopathy. Two studies were selected and validated using the Cochrane risk of bias assessment tool. Trial results were analyzed using Cochrane Review Manager Software version 5.0 with a fixed-effects model. The primary outcome of the study was improvement of HE scoring algorithm (HESA).

Results Two trials comprising of 148 patients met the inclusion criteria. In the fixed-effect model (figure 1), it showed a statistically significant increase in the rates of improvement in the HESA ($p < 0.0001$) among patients given PEG compared to those given lactulose (93.15% vs. 65.33%; RR 1.42, 95% CI: 1.19–1.69). The two trials showed moderate heterogeneity ($I^2 = 47\%$). This can be due to differences in the population of the 2 studies specifically their Child-Turcotte-Pugh scores.

Conclusions PEG is an effective treatment for rapid resolution of HE. It significantly increased the rate of improvement in the HESA suggesting it may be a good alternative to the standard lactulose therapy given its rapid action.