zones with consistent energy delivered has yet to be used in the Philippines. With the combination of this consistent power/energy delivery and variable antenna lengths for different tumor locations, more precise management would entail a better outcome for the patient.

Conclusions These 6 cases represent the possibility of a more refined approach to the management of HCC and liver metastasis. This presents an opportunity to possibly improve interventional care provided to each patient, ensuring the best possible results with minimally invasive ablation therapy. This paper would provide opportunities to evaluate this technique and compare it to conventional RF ablative management.

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TUMOR SIZE AND LOCATION AFFECTING THE TREATMENT SELECTION FOR SOLITARY SMALL RECURRENT HEPATOCELLULAR CARCINOMA (≤ 3.0 CM) AFTER INITIAL HEPATECTOMY

Shuling Chen*, Zhenwei Peng, Han Xiao, Mengchao Wei, Ming Kuang. *The First Affiliated Hospital of Sun Yat-sen University, China*

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Background We aimed to investigate the optimal treatment modality between radiofrequency ablation (RFA) and repeated hepatectomy in the treatment of solitary recurrent HCC (rHCC) after hepatectomy, considering the influence of tumor size and location.

Methods From Jan 2009 to Dec 2016, 630 consecutive patients with solitary small rHCC (≤ 3.0 cm) after initial hepatectomy who underwent RFA or repeated hepatectomy were enrolled in three tertiary referral centers. Patients were divided into four groups according to tumor size (≤ 2.0 cm or >2.0 cm) and location (central or peripheral) respectively. Overall survival (OS) and recurrence-free survival (RFS) rates were compared between RFA and repeated hepatectomy in these four groups.

Results For central rHCC ≤ 2.0 cm, the OS and RFS rates at 5 years after RFA were significantly higher than those after repeated hepatectomy (69.9% vs 53.1%, $P=0.001$; 56.2% vs 42.6%, $P=0.038$). For central rHCC >2.0 cm, the 5-year OS and RFS rates were not significantly different between repeated hepatectomy and RFA (55.9% vs 48.2%, $P=0.080$; 27.0% vs 19.2%, $P=0.103$). For peripheral tumors ≤ 2.0 cm (58.8% vs. 47.7%, $P=0.001$; 45.2% vs. 25.6%, $P=0.001$) or >2.0 cm (62.6% vs. 45.4%, $P=0.001$; 44.7% vs. 21.1%, $P=0.010$), the OS and RFS rates at 5 years after repeated hepatectomy were both significantly higher than those after RFA. Complications were more common in patients after repeated hepatectomy than RFA, especially for central tumors.

Conclusions RFA might be the optimal treatment for patients with central rHCC ≤ 2.0 cm whereas repeated hepatectomy should be recommended for patients with peripheral tumors.

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CAN ARTIFICIAL INTELLIGENCE SUPPORT THE CLINICAL DECISION MAKING FOR HEPATOCELLULAR CARCINOMA?

Shuling Chen*, Zebin Chen, Han Xiao, Zhenwei Peng, Sui Peng, Ming Kuang. *The First Affiliated Hospital of Sun Yat-sen University, China*

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Background Artificial intelligence (AI) is emerging as a revolutionary technology with the power to transform healthcare. IBM Watson for Oncology (WFO), as the first AI clinical decision support system (CDSS) with a cognitive-support approach for therapy selection, has been investigated about its impact on clinical decision making in some cancer types and showed potential benefit in cancer therapy. However, the use of WFO in hepatocellular carcinoma (HCC) has not been reported.

Methods A cross-sectional retrospective study was performed to evaluate the degree of recommended treatment concordance between WFO and multidisciplinary team (MDT) for 550 HCC patients diagnosed between Jan 2013 and Jun 2013 at three tertiary referral centers in China. Comparative survival analysis with propensity score matching (PSM) method was conducted to assess whether the WFO-recommended modality could benefit patients in survival when compared to MDT. Univariate and multivariate regression analyses were performed to identify factors associated with discordance.

Results The overall concordance rate was 58.5% in all cases, and 53.7%, 61.4%, 47.3% and 61.7% for patients with BCLC stage 0, A, B and C, respectively. For BCLC stage 0, radiofrequency ablation (RFA) was the first recommended treatment by both MDT and WFO without significant difference (52.6% vs. 50.0%, $P=0.867$) while hepatectomy was for BCLC stage A (75.7% vs. 65.6%, $P=0.066$). For BCLC stage B/C, TACE was recommended more by WFO (100.0% vs. 6.3%, $P<0.001$; 73.0% vs. 17.4%, $P<0.001$) and hepatectomy more by MDT (0.0% vs. 77.1%, $P<0.001$; 25.7% vs. 67.4%, $P<0.001$). After PSM, hepatectomy could achieve higher 1-, 3-, and 5-year overall survival rates than TACE for patients with BCLC stage B/C (77.2%, 47.0%, 37.4% vs. 61.3%, 29.5%, 14.8%, $P=0.039$). Discordant treatment recommendations between WFO and MDT were more likely observed in female, Child-pugh B, performance status 1-2, $PLT \leq 100 \times 10^9/L$, multiple tumors and portal hypertension (all $P<0.05$).

Conclusions For HCC patients, MDT recommended more aggressive treatments than WFO. WFO-recommended treatments did not show survival superiority to MDT, in patients with BCLC stage B/C.

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THE RELATIONSHIP BETWEEN HEPATIC STEATOSIS AND RESULT OF VIRAL HEPATITIS C TREATMENT

Keerati Akarapattima*, Tatsana Sattayaraksa. *Department of Internal Medicine Hatyai Hospital, Thailand*

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Background Hepatitis C virus (HCV) infection is an important liver disease. Nowadays 185 million patients were suffered from HCV infection. Forty to eighty-five percentages of these patients had hepatic steatosis particularly in HCV genotype 3 which is the most common genotype in Thailand.

The previous studies evaluated hepatic steatosis by liver biopsy and they analyzed the correlation between hepatic steatosis and HCV treatment but results were unclear. Most of the previous results showed hepatic steatosis decrease efficacy of treatment but others showed no correlation. This research proposes the relationship between hepatic steatosis and treatment result using the Controlled attenuation parameter (CAP) from transient elastography which is less invasive.