or cisplatin in this procedure. In this study, we compared the survival, antitumor efficacy against HCC and safety for the liver function between doxorubicin-DEB-TACE and cisplatin-DEB-TACE. Methods The single-center retrospective study evaluated 61 patients who treated with DEB-TACE against intermediate-stage HCC. An antitumor efficacy was determined by CT used modified response evaluation criteria in cancer of the liver (mRECICL) at 3 months after this procedure. And the change of liver function was evaluated for Child-Pugh (C-P) score. Results The etiologies of 61 patients were 5 of HBV, 33 of HCV and 23 of others. Thirty-eight patients were treated with doxorubicin-eluting beads (doxorubicin group) and 23 patients were treated with cisplatin-eluting beads (cisplatin group). The clinical background (age, gender, etiology and child-pugh score) of these two groups were not significantly different. In the results, the median of overall survival of cisplatingroup (366 days) was shorter than doxorubicin group (454 days). The response rates of the treatment effect 3 (partial response) and 4 (complete response) at mRECICL were 28.9% (11/38) in doxorubicingroup and 13.0% (3/23) incisplatingroup. The liver functions were kept in both groups of patients after DEB-TACE and there were no significantly difference in both groups. There were no severe adverse events related to both groups of patients. Conclusion These results indicated that doxorubicin-eluted beads TACE yields better treatment effects thancisplatineluting beadsTACE in patients with intermediate stage of HCC.

# Mo1459

DIAGNOSTIC AND PROGNOSTIC IMPLICATION OF MIR-27A-3P IN HUMAN HEPATOCELLULAR CARCINOMA WITH DIFFERENT ETIOLOGY Joseph George, Atsushi Fukumura, Kazuaki Ozaki, Nobuyuki Toshikuni, Mutsumi Tsuchishima, Mikihiro Tsutsumi

Background and Aims: Aberrant expression of microRNAs (miRNAs) contributes to the pathogenesis and progression of hepatocellular carcinoma (HCC). Understanding the molecular mechanisms by which miRNAs contribute to hepatocarcinogenesis could help to develop miRNA-based therapeutic strategies for HCC. The aim of the present study was to identify a remarkably deregulated miRNA present in the serum, which could be used for diagnostic and prognostic purposes in HCC patients with different etiology. Methods: Microarray of miRNAs present in the serum of HCC patients demonstrated that miR-27a-3p is markedly downregulated (85%) compared to healthy controls. Therefore, we collected serum samples from healthy controls, liver cirrhosis (LC), and HCC patients with different etiology and the total miRNAs were isolated using Qiagen miRNeasy kit. About 200 ng isolated total miRNA was hybridized with a miR-27a-3p specific oligo and the hybridized product is measured using chemiluminescence method as counts which is a highly sensitive and very specific technique to quantify miRNAs. Results: Compared to healthy controls, miR-27a-3p was reduced about 10 fold in the sera of HCC patients with different etiology and the maximum reduction was observed in HCC cases with alcoholic liver cirrhosis. A significant difference (P<0.01) was noticed in miR-27a-3p levels in the sera of HCC patinets with LC and without LC. Compared to healthy controls, miR-27a-3p was reduced (P<0.01) in LC patients without HCC. There was significant decrease in miR-27a-3p levels in alcoholic LC patients compared to HCV LC cases indicating probability towards pathogenesis of HCC. Conclusions: The results of the current study indicate that miR-27a-3p levels in the sera of patients with LC and HCC could be used for diagnostic and prognosis purposes along with other clinical parameters.

## Mo1460

## HEPATOCELLULAR CARCINOMA (HCC) OUTCOMES IN AN ETHNICALLY DIVERSE POPULATION: DATA FROM UNIVERSITY MEDICAL CENTER IN NEW ORLEANS

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Background/Aim: HCC is a significant burden on our healthcare system. In the United States, this cancer has risen from 1.4 to 6.7 per 100,000 people over the past two decades. Hepatitis C virus (HCV) is the most common cause of HCC; 25% of patients (pts) with HIV are coinfected with HCV. As of 2015, 19,492 people were infected with HIV in the state of Louisiana. HCC has a 5-year survival rate below 12%; identifying those at risk may improve outcomes. The uninsured/indigent populations may face poorer outcomes with increased morbidity and mortality. Methods: A retrospective chart review was conducted to analyze a cohort of 124 patients (pts) diagnosed with HCC from 2013 to 2018 at University Medical Center in New Orleans (UMCNO). Descriptive characteristics of pts in the study include ethnicity, sex, hepatitis B (HBV) and HCV status, HCC screening, alcohol, location of metastasis, AFP at time of diagnosis. One year survival rates as well as current dead or alive status were also obtained. Using logistic regression, outcomes of a previous study analyzing a similar population (n=107) from (2007-2013) were comparatively analyzed. The significance of survival differences between those under HCC screening protocol as well as presentations with AFP>1000 was approximated using the Kaplan-Meier method (see graph). Results: Demographic analysis (Table) of those diagnosed with HCC revealed 84% were male and 16% were female. With a mean age of 59.07; 44% were African American, 33% were Caucasian, 7% were Asian, 2% Hispanic and 13% unknown ethnicity. 83% of pts had HCV, 7% had HBV, 3% had HCV /HBV and 7% had HIV/HCV. Of those who had a hepatitis viral infection, 34% were screened for HCC. 52.23% of patients abused alcohol. The most common site of metastasis was the lung 16.13% (n=20) with the second being bone 7.26% (n=9). The overall survival rate of 1 years was calculated with the one year survival rate being significantly increased when compared to the previous study(29% to 62%). Conclusion: Significant findings were present in this patient population. Both HCC screening and AFP levels were found to be statistically correlated to overall survival at three years. These data would be in line with some studies recommending AFP testing pre-treatment as a method to modify HCC staging systems. We compared our findings to a statistical analysis completed of a similar population between 2007-2013 at UMCNO. There was an increase in the number of Caucasians (24% to 33%) as well as patients infected with HCV (75% to 85%). Usage of HCC screening increased from 15% to 36%. The increased survival between cohorts is potentially a consequence of the increased utilization of HCC screening.

	Demographic and clinical values	Current study $(n = 124)$	Previous study $(n = 107)$	p-value
Ethnicity $(n = 108)$				
	Black	53 (49%)	67 (63%)	0.063
	White	42 (39%)	27 (25%)	0.046
	Other	13 (12%)	13 (12%)	1.00
Sex (n = 124)				
	Male	104 (84%)	91 (85%)	0.949
	Female	20 (16%)	16 (15%)	
Etiology				
	Median age at diagnosis $(n = 117)$	59.07	NA	
	Alcohol abuse $(n = 118)$	66 (56%)	NA	
	Tobacco abuse $(n = 118)$	84 (71%)	NA	
	HCV (n = 123)	105 (85%)	80 (75%)	0.064
	HCV (Black)	50 (94%)	NA	
	HCV (Non-Black)	55 (79%)	NA	
	HBV (n = 123)	13 (11%)	10 (9%)	0.930
	HBV (Black)	3 (6%)	NA	
	HBV (Non-Black)	10 (14%)	NA	
	On HCC surveillance protocol (n = 112)	40 (36%)	12 (15%)	0.003
	HIV $(n = 120)$	11 (9%)	NA	
	HIV (Black)	9 (17%)	NA	
	HIV (Non-Black)	2 (3%)	NA	
Co-morbidities				
	Hypertension $(n = 119)$	53 (45%)	NA	
	Diabetes $(n = 119)$	15 (13%)	NA	
Advanced Liver Disease				
	AFP >1000 (n = 113)	25 (22%)	NA	
	PVT (n = 121)	34 (28%)	NA	
Survival Rate				
	One year $(n = 90)$	56 (62%)	31 (29%)	< 0.001
	Two year $(n = 74)$	24 (32%)	NA	



## Mo1461

#### OUTCOMES IN NONALCOHOLIC FATTY LIVER DISEASE ASSOCIATED HEPATOCELLULAR CARINOMA TREATED WITH TRANSARTERIAL RADIOEMBOLIZATION WITH YTTRIUM-90

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Background: Hepatocellular carcinoma (HCC) is the most common primary liver tumor most common malignancy. Locoregional therapies for the treatment of HCC are and ' options for unresectable tumors as well as a bridging therapy for liver transplant candidates. Transarterial Radioembolization (TARE) with Yttrium-90 microspheres (Y90) is an emerging treatment when transarterial chemoembolization is contraindicated. With the rising incidence of obesity and non-alcoholic fatty liver disease (NAFLD), there will likely be a paradigm shift in the underlying etiology of HCC. Treatment response and outcomes in patients with NAFLD-HCC using TARE-Y90 is not well described. This is a retrospective study to identify differences in TARE-Y90 treatment response among NAFLD-HCC when compared to HCC from hepatitis C virus (HCV) and alcoholic liver disease (ALD) 12 months after treatment. Methods: Between July 2010 and April 2016, 51 patients with HCC were treated with TARE-Y90. Post TARE tumor response was assessed by either CT or MRI scan and classified based on mRECIST guidelines. Favorable outcomes were defined as: 1) Complete response, 2) Partial response, 3) Stable disease, and 4) Liver transplant (LT). Unfavorable outcomes were defined as: 1) Progressive disease, 2) Development of new lesions, 3) New distant metastasis, and 4) Death. A NAFLD diagnosis was assigned with a history of a liver biopsy consistent with NAFLD and/or clinical history of the metabolic syndrome and alcohol ingestion less than the accepted range for ALD. Results: Mean age was 67.7±12 (78.4% male); 60.8% Caucasian non-Hispanic, 13.7% Hispanic, 5.9% African-American and 5.9% Asian. The average BMI was 29.8±6.2 kg/m<sup>2</sup>; 52.9% had type 2 diabetes (DM), 27.5% had NAFLD, 29.4% had HCV and 37.3% had ALD. 56% of the NAFLD-HCC cohort and 52% of the HCV/ALD-HCC cohort had DM. When comparing NAFLD-HCC to HCV/ALD-HCC there were no statistical differences with regards to BMI (30.88 kg/m<sup>2</sup>vs. 29.90 kg/m<sup>2</sup>), or MELD (9.25 vs. 8.73). Overall survival (OS) after the first Y90 session was 592.1±453 days, and progression-free survival was 837.4 ± 404 days. At 12 months favorable outcomes were similar in the NAFLD-HCC cohort and the HCV/ALD-HCC cohort (43.8% vs. 48.3%; p= 0.5). There was no statistical difference in OS between the NAFLD-HCC and HCV/ALD-HCC cohorts (585 days vs. 607.7). At 12 months, there were 2 patients with NAFLD-HCC and 3 patients in HCV/ALD-HCC that underwent LT. There were 17 deaths (41% in NAFLD-HCC cohort vs. 59% from the HCV/ALD-HCC cohort). Favorable outcomes were not statistically different when comparing BMI  $\geq$ 30 kg/m<sup>2</sup> vs. BMI<30 kg/m<sup>2</sup> (37% vs. 45.8%; p=0.5). Conclusion: Patients with HCC in the setting of NAFLD have comparable overall survival and treatment response with TARE-Y90 to patients with HCV/ALD-HCC. A BMI ≥30 kg/m<sup>2</sup> has negligible overall impact in the treatment response