■ Sat-089 ■

The direct comparison between 7th &8th AJCC staging for prediction of survival with HCC patients

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Background/Aims: AJCC staging is the most commonly used staging system in most solid tumors, and recent AASLD hepatocellular carcinoma (HCC) guideline also endorsed this AJCC staging system based on status of tumor, node, and metastasis. Recently, 8th edition of AJCC staging system was released in December 2016. This study aimed to compare prediction of survival in HCC patients between 7th AJCC staging system and 8th AJCC staging system **Methods:** From 2004 to 2013, 2211 newly diagnosed HCC patients were consecutively enrolled in three Korea University medical centers and the medical records of patients were retrospectively reviewed. Each patients were classified following both of 7th AJCC staging system and 8th AJCC staging system **Results:** Chronic hepatitis B (1523, 68.9%) was main attributable factor in development of HCC, followed by chronic hepatitis C (256, 11.6 %) and alcohol consumption (241, 10.9%). 1514 patients (68.5%) died during study period and median overall survival (OS) was 24.7 months. According to 7th AJCC staging system, 894 (40.4%) patients were included into stage I; 459 patients (20.8%) into stage II; 180 patients (8.1%) into stage IIIa; 354 patients (16.0%) into stage IIIb; 3 patients (0.1%) into stage IIIc; 119 patients (5.4%) into stage IVa; and 202 patients (9.1%) into stage IVb. According to 8th AJCC staging system, 400 (18.1%) patients were categorized into stage IA; 498 patients (22.5%) into stage IB; 442 patients (20.2%) into stage II; 193 patients (8.7%) into stage IIIa; 357 patients (16.1%) into stage IIIb; 119 patients (5.4%) into stage IVa; and 202 patients (9.1%) into stage IVb. Both 7th staging system and 8th staging system show distinct survival outcomes according to each stage. Although 7th AJCC staging system significantly well predicted 1 year of survival than 8th AJCC staging system (AUROC; 0.796 vs 0.784, P=0.013), AUROCs of 3 year and 5 year were similar in 7th and 8th AJCC staging system (0.754 vs 0.752 in 3 year, P=0.601; 0.744 vs 0.742 in 5 year, P=0.643) **Conclusions:** Both 7th and 8th AJCC staging system show distinct survival outcome according to each stage. Moreover, both 7th and 8th AJCC staging system are similar in prediction of survival outcomes

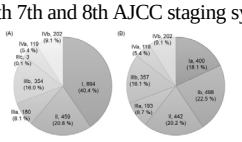

Figure 1. Distribution of patients according to 7th AJCC staging system(A) and 8th AJCC staging system (B).

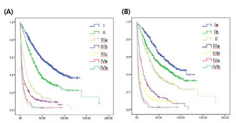

Figure 2. Distinct survival outcomes for 7th AJCC and 8th AJCC staging systems. (A) Kaplan-Meier survival curve according to stages of 7th AJCC staging system (log-rank test, p < 0.001). (B) Kaplan-Meier survival curve according to 8th AJCC staging system stages (log-rank test, p < 0.001).

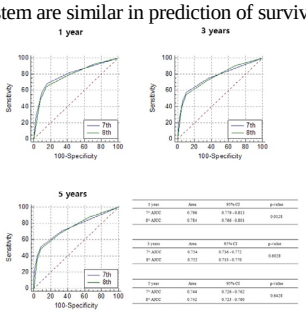

Figure 3. The AUROC at 1 year, 3 years, and 5 years. Green line represents the AUROC for 7th AJCC staging system, while blue line represents that of 8th AJCC staging system.

Characteristics	No.	%
Age	58.3	
Sex		
Male	1762	79.7%
Female	449	20.3%
Etiology		
Alcohol	241	10.9%
HBV	1522	68.8%
HCV	256	11.6%
Combined	15	0.7%
Other	177	8.0%
ECOG PS		
0	1691	76.5%
1	241	10.9%
2	194	8.8%
3	60	2.7%
4	25	1.1%

Characteristics	No.	%
CTP score		
A	1310	59.2%
B	657	29.7%
C	244	11.0%
AFP, ng/mL	19851.6	
Modality		
Resection	296	13.4%
LT	12	0.5%
RFA	507	22.9%
TACE	936	42.3%
Chemotherapy	103	4.7%
Supportive Tx.	357	16.1%
Follow-up		
Died	1514	68.5%
Follow-up time	21.23 M	

Characteristics	No.	%
Tumor status		
Size, cm		
≤ 2	631	28.5 %
> 2 to ≤5	724	32.7 %
> 5	856	38.7 %
No. of tumors		
1	1115	50.4 %
2-3	529	23.9 %
> 3	567	25.6 %
Tumor status		
Early	1103	49.9 %
Intermediate	400	18.1 %
Locally advanced	708	32.0 %
Intrahepatic vas.	307	13.9 %
Extrahepatic vas.	325	14.7 %
Extrahepatic mets.	197	8.9 %

■ Sat-090 ■

Sarcopenia may be associated with the mortality in patients with hepatocellular carcinoma

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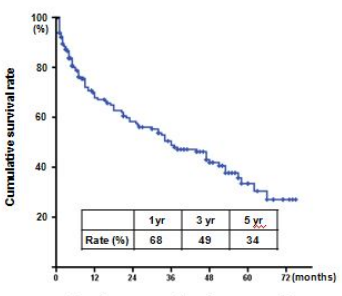
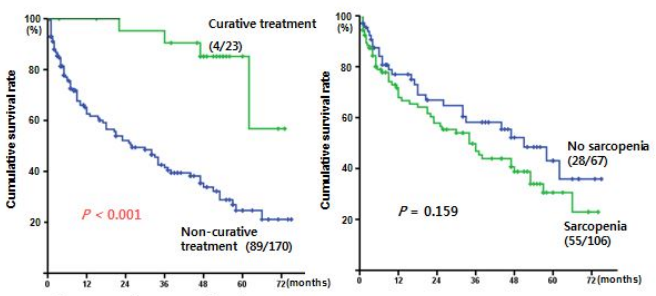
Background: Sarcopenia has known as an independent predictor of clinical outcomes in patients with hepatocellular carcinoma (HCC). In this study, we aimed to investigate the association of sarcopenia with the mortality in patients with HCC. **Methods:** A total of 193 HCC patients were subjected. All enrolled patients had a computed tomography at the level of the third lumbar (L3) vertebrae to determine the L3 skeletal muscle index. Sarcopenia was defined using previously established cutpoints. They were followed up for a median 12 months (range, 1-80). **Results:** Median age was 58 years (range, 36-86), 80% of patients were male, 62% Child –Pugh class A and 70% were positive for HBsAg. Only 23 patients (12%) could undergo curative treatment (surgical resection, liver transplantation, radiofrequency ablation) Sacopenia was present in 106 patients (55%). By univariate analysis, sarcopenia (OR=2.08; 95% CI 1.12-3.87: P =0.021), Child-Pugh score (OR=1.38; 95% CI 0.92-191.12: P <0.001), tumor number (OR=3.01; 95% CI 1.55-5.85: P=0.001), tumor size (OR=1.10; 95% CI 1.02-1.187: P =0.01), portal vein thrombosis (OR=3.00; 95% CI 1.45-6.21: P =0.003) and curative treatment of HCC (OR=0.13; 95% CI 0.04-0.39: P <0.001) were associated with mortality. By multivariate analysis, sarcopenia (OR=2.13; 95% CI 1.01-4.54: P =0.021) and curative treatment of HCC (OR=0.26; 95% CI 0.08-0.87: P=0.029) were closely associated with mortality. There was no correlation with age, gender, cirrhosis, diabetes mellitus, prevalence of hepatitis surface antigen positivity, underlying renal function, body mass index, platelet count, baseline AFP level, Child-Pugh score, tumor size, tumor number and portal vein thrombosis. **Conclusion:** Our data suggested that sarcopenia and curative treatment of HCC may be closely associated with the mortality in HCC patients.



Cumulative survival rate of HCC



Kaplan-Meier survival curves. (A) curative treamtent (B) sarcopenia