

Age and Hepatocellular Carcinoma in HIV-Infected Patients



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Background

- Hepatocellular carcinoma is diagnosed with increasing frequency in HIV infected patients.
- It is unknown what role age plays in the course of this malignancy.

Methods

- Retrospective analysis in 31 centers in 7 countries (dark gray on map):

- North America: Canada and United States
- South America: Argentina and Brazil
- Europe: Germany, Spain and United Kingdom



- All HCC cases in HIV-infected patients from 1995-2010 with data on initial presentation.

N=163

- Diagnosis by AASLD criteria (Bruix & Sherman, Hepatology, 2005)

- Patients were divided into
 - Age <50 years n=66 (40%)
 - Age 50+ years n=97 (60%)

To contribute your cases of HCC in HIV patients for further studies, please contact:

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Patient Characteristics

	Age <50 yrs n=66	Age 50+ yrs n=97	P
Male Sex	61 (92%)	93 (96%)	0.33
Race/Ethnicity			0.005
White	40 (61%)	37 (38%)	
Black	15 (23%)	49 (51%)	
Latino	9 (14%)	9 (9%)	
Asian + other	2 (3%)	2 (2%)	
Etiology of HCC			0.059
Chronic Hepatitis C	44 (68%)	76 (78%)	
Chronic Hepatitis B	21 (32%)	18 (19%)	
Non-Viral (Alcohol, NASH)	0	3 (3%)	
Excessive Alcohol Consumption	20 (33%)	38 (41%)	0.59
Child-Turcotte-Pugh Score, Mean ± SD	6.70 (±1.8)	6.75 (±1.8)	0.85
Stage A	35 (53%)	55 (57%)	0.48
Stage B	26 (39%)	30 (31%)	
Stage C	5 (8%)	11 (12%)	
Prior HCC Screening	39 (59%)	48 (50%)	0.25
Log 10 HIV RNA, mean	2.43	2.62	0.39
CD4+ Cells, mean (per mm ³)	318	364	0.21
On HIV Therapy	55 (83%)	68 (70%)	0.054

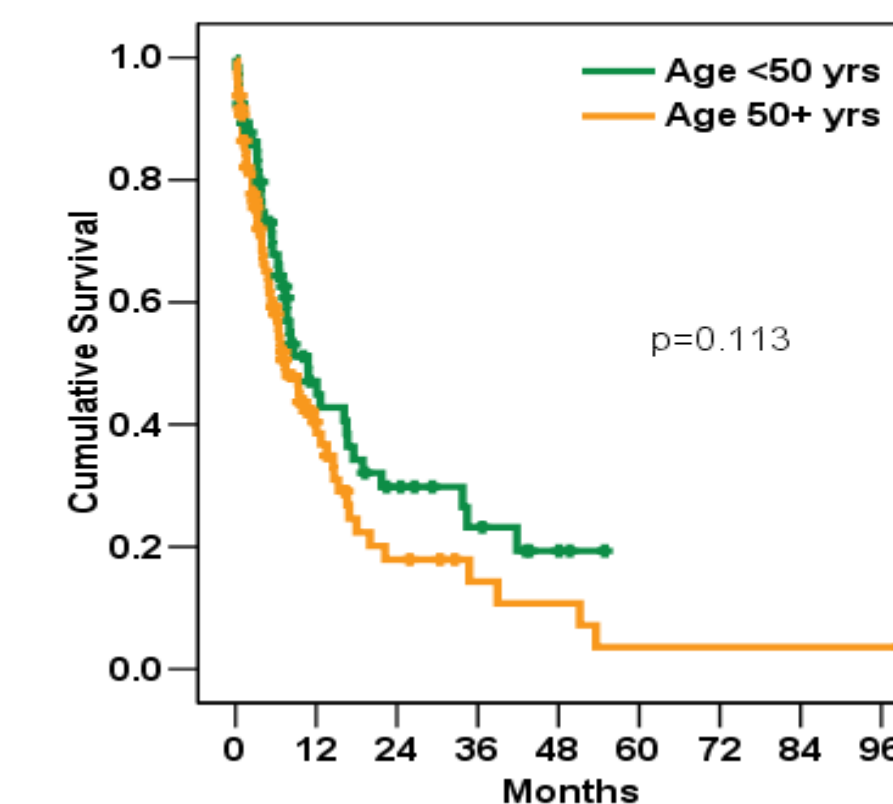
HCC Staging

	Age <50 yrs n=66	Age 50+ yrs n=97	P
BCLC Stage, n (%)			0.87
A	18 (27%)	30 (31%)	
B	13 (20%)	21 (22%)	
C } Advanced, D } Incurable	26 (39%) 9 (14%)	32 (33%) 13 (14%)	
CLIP Score, Mean ±SD	1.81(±1.42)	94(±1.42)	0.58

HCC Therapy

	Age <50 yrs n=66	Age 50+ yrs n=97	P
Potentially Curative Therapy	24 (36%)	25 (26%)	0.19
Radiofrequency Ablation (RFA)	10	12	
Ethanol Injections	5	5	
Surgical Resection	6	8	
Liver Transplantation	3	0	
Effective, Non-Curative Therapy	19 (29%)	25 (26%)	0.19
Transarterial Chemoembolization	14	19	
Sorafenib	5	6	
No Therapy	23 (35%)	47 (49%)	
Any Effective Therapy	43 (65%)	50 (51%)	0.085

Survival



At Risk:	0	12	24	36	48	60	72	84	96
Age <50 years	66	22	8	4	3	1	1	1	1
Age 50+ years	97	22	12	7	3	0	0	0	0

Median survival

Age <50 years 10.8 months
 Age 50+ years 7.4 months

HCC Tumor Characteristics

	Age <50 yrs n=66	Age 50+ yrs n=97	P
Hepatic Lesions			0.08
Solitary Tumors	39 (59%)	44 (46%)	
Multiple tumors	25 (38%)	41 (43%)	
Diffusely Infiltrative Tumors	2 (3%)	11 (12%)	
Median Size Largest Lesion (cm), Range	4.0 (0.5 – 20)	4.3 (1.2 – 18)	0.66
Portal Vein Thrombosis	12(18%)	19(20%)	0.79
Extrahepatic Metastases	12(18%)	12(12.5%)	0.32
AFP level			
Median (ng/ml)	399	216	0.45
Normal (≤ ULN)	6 (10%)	13 (14%)	0.47

Summary and Conclusion

Compared to younger HIV-infected patients with HCC, patients 50 years or older:

- are more frequently black,
- tend to have chronic hepatitis C,
- tend to present more frequently with multiple rather than solitary tumors,
- tend to receive effective HCC therapy less often,
- but have similar survival.

* This abstract is dedicated to Edmund J. Bini, MD, MPH (1967 – 2010), who contributed greatly to this study, and who would have been a co-author

