

Increasing Frequency of Hepatocellular Carcinoma (HCC) in HIV-Infected Patients. A Pilot Study in North & South America and Europe.



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Background

- The incidence of HCC overall has been rising worldwide.
- Cases of HCC in HIV-positive patients have only recently been reported, and their frequency over time is unknown.

Methods

- Retrospective analysis in 25 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



Sites from countries in light gray are awaiting IRB/EC approval

- All HCC cases in HIV-infected patients from 1995-2009 with data on initial presentation.

N=128

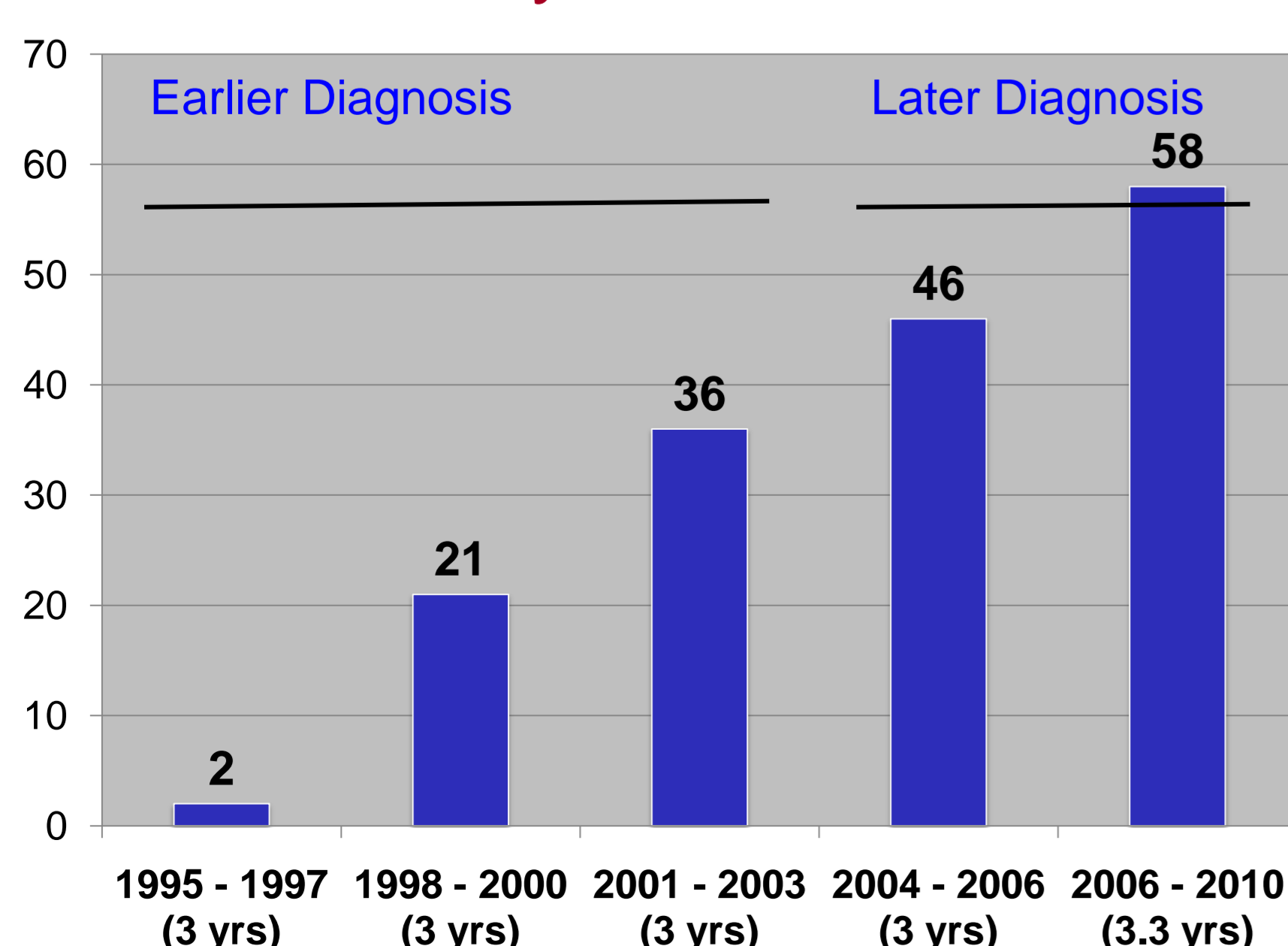
- Diagnosis by AASLD criteria (Bruix & Sherman, *Hepatology*, 2005)

- Time of diagnosis:

- Earlier: HCC diagnosis from 1995 to 2003
- Later: HCC diagnosis from 2004 to 2009

- Analysis of tumor characteristics, staging, therapy, and survival

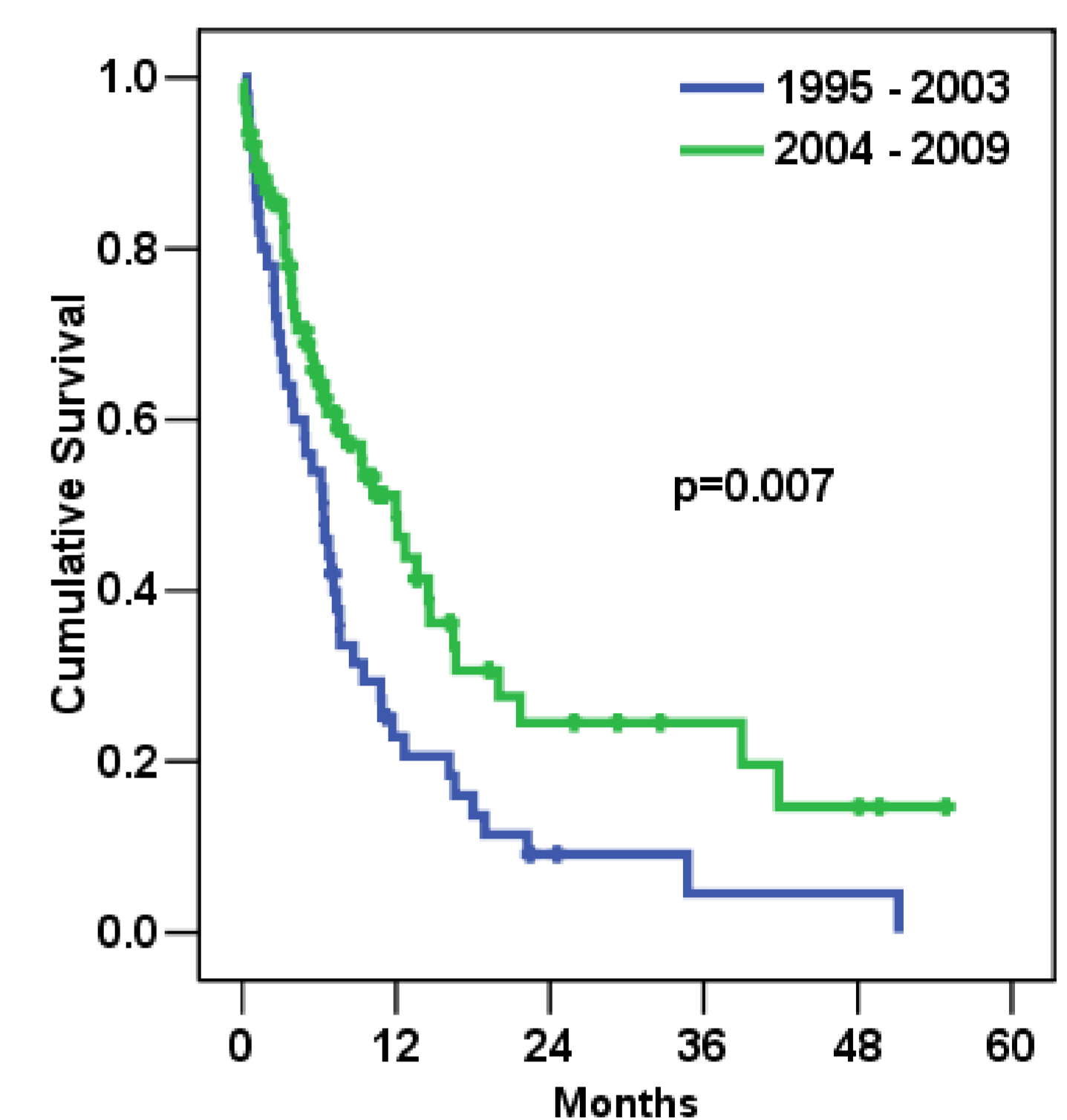
Increasing Frequency in 3-year intervals



Patients Characteristics

	Earlier 1995 – 2003 n=50 (39%)	Later 2004 - 2009 n=78 (61%)	P
Age (yrs), Mean ± SD	52.6	51.5	0.43
Female Sex	0	9 (11.5%)	0.012
Continent			
North America	49 (98%)	50 (64%)	<0.001
South America	0	15 (19%)	
Europe	1 (2%)	13 (17%)	
Heavy Alcohol Consumption	18 (38%)	27 (36%)	0.96
Etiology of HCC			
HCV	33 (66%)	60 (77%)	0.32
HBV	15 (30%)	17 (22%)	
Non-viral	2 (4%)	1 (1%)	
Liver Function, Mean ± SD			
Child-Turcotte-Pugh Score	7.2	6.6	0.058
Stage A	23 (46%)	44 (57%)	0.47
Stage B	21 (42%)	26 (34%)	
Stage C	6 (12%)	7 (9%)	
HIV parameters			
HIV RNA (median copies/ml)	548	< 50	0.011
HIV RNA <400 Copies/ml (%)	48%	69%	0.017
CD4+ Cells (median /mm ³),	304	346	0.55
HCC diagnosed via screening (Imaging or AFP)	23 (46%)	45 (58%)	0.17

Survival



At Risk	0	12	24	36	48	60
1995 – 2003	50	10	3	1	1	
2004 – 2009	77	20	8	5	3	

Median survival:
1995 – 2003: 6.3 months
2004 – 2009: 12.0 months

HCC Staging

	Earlier n=50	Later n=78	P
BCLC Stage, n (%)			
A	12 (24%)	26 (34%)	0.28
B	9 (18%)	16 (21%)	
C } Advanced,	24 (48%)	24 (31%)	
D } Incurable	5 (10%)	11 (14%)	
BCLC Stages C and D	29 (58%)	36 (46%)	0.17
CLIP Score, Mean ±SD	2.21 (±1.13)	1.78 (±1.38)	0.076

HCC Therapy

	Earlier n=50	Later n=78	P
Potentially Curative Therapy	11 (22%)	24 (31%)	0.22
Radiofrequency Ablation	5	11	
Ethanol Injections	5	2	
Surgical Resection	1	9	
Liver Transplantation	0	2	
Effective, Non-Curative Therapy	12 (24%)	24 (31%)	0.22
Transarterial Chemoembolization	12	6	
Sorafenib (with or without TACE)	0	8	
No Therapy	27 (54%)	30 (39%)	
Any Effective Therapy	23 (46%)	48 (62%)	0.084

Conclusion

- The frequency of HCC in HIV-infected patients is on the rise in selected countries.
- Compared to patients with an earlier diagnosis, later patients are more frequently female, have better control of HIV RNA levels, lower CTP scores, and higher frequency of effective HCC therapy.
- They also live significantly longer.
- Larger studies including more world regions are needed to confirm this trend.

* 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

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

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or visit us at: www.HCCinHIV.org