

REAL-LIFE TREATMENT RATES FOR HEPATOCELLULAR CARCINOMA IN HIV-INFECTED PATIENTS

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ABSTRACT

BACKGROUND: The incidence of hepatocellular carcinoma (HCC) in HIV-infected patients is increasing worldwide. It is not known if HIV-infected patients access effective therapy against HCC. Our aim was to assess the proportion of HIV-infected patients with HCC that do not access recommended therapy according to HCC stage.

METHODS: The GEHEP-002 multicentric cohort (ClinicalTrials.gov ID: NCT02785835) recruits HCC cases diagnosed in HIV-infected patients from 32 centers from Spain. The Barcelona-Clinic Liver Cancer (BCLC) staging system was used for HCC staging and treatment allocation. The proportion of patients receiving less effective therapy against HCC as indicated by BCLC stage at diagnosis and the evolution of this proportion over time was analyzed.

RESULTS: 317 HCC cases from the GEHEP-002 cohort were included in this study. The distribution of patients according to BCLC stage at diagnosis were: Stage 0= 6 (2%); Stage A: 115 (36.3%); Stage B: 26 (8.2%); Stage C: 111 (35%) and Stage D: 59 (18.5%). Eighty-four (32.5%) out of 258 patients who were potentially candidates to therapy did not receive therapy or receive treatment less effective as indicated by BCLC (Table 1). The proportion of patients receiving no/less effective therapy varied according to the BCLC stage. Thus, it was 25%, 34.6% and 43% in patients at BCLC stage 0/A, B and C, respectively ($p<0.0001$) (Table 1). Forty-one (43.6%) out of 94 cases diagnosed prior to 2010 and potentially candidates to HCC treatment received no/less effective therapy than recommended, while this occurred in 45 (27.4%) out of 164 cases diagnosed from 2010 ($p=0.03$). Conversely, the proportion of HCC cases diagnosed at stage 0/A increased in the second period (36 out of 128 [28%] vs. 85 out of 190 [45%]; $p<0.001$).

CONCLUSION: A high proportion of HIV-infected patients diagnosed of HCC did not receive therapy or receive less effective treatment as recommended by its BCLC stage. This situation becomes more frequent as HCC diagnosis is made in a more advanced stage. However, the access to therapy has improved in the recent years, probably as a consequence of the increase in the proportion of HCC cases that are diagnosed in earlier stages.

BACKGROUND

✦ The incidence of hepatocellular carcinoma (HCC) in HIV-infected patients is increasing worldwide¹.

✦ Unfortunately, survival after HCC diagnosis has been dramatically low in HIV-infected patients, partly due to low treatment rates for HCC in the past years in this population¹. Of note, better survival rates were proven in patients receiving potential curative therapies¹.

✦ This scenario may have changed, as a consequence of an improvement of the management of cirrhosis and HCC. However, it is not known if HIV-infected patients are currently accessing effective therapy against HCC, and, specifically if they are receiving proper therapy according to its BCLC stage.

¹Merchante N, et al. Clin Infect Dis 2013; 56: 143-50.

OBJECTIVE

✦ To assess the proportion of HIV-infected patients with HCC that do not access recommended therapy according to HCC stage.

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PATIENTS AND METHODS

Study design

✦ Multicenter retrospective cohort study (1996-2016).

Patients

✦ The GEHEP-002 cohort (ClinicalTrials.gov ID: NCT02785835) recruits HCC cases diagnosed in HIV-infected patients from 32 centers from Spain.

✦ HCC diagnosis made by AASLD criteria.

✦ The Barcelona-Clinic Liver Cancer (BCLC) staging system was used for HCC staging and treatment allocation.

✦ Stages 0-A: Potential curative therapies (ablation, surgical resection, liver transplant).

✦ Stage B: Transarterial chemoembolization (TACE).

✦ Stage C: Sorafenib.

✦ Stage D: Best supportive care.

Statistical analyses

✦ The proportion of patients receiving less effective therapy against HCC as indicated by BCLC stage at diagnosis and the evolution of this proportion over time was analyzed.

RESULTS

Table 1. Characteristics of the study population (n=317).

Characteristics	Value
Age (years) ¹	49 (46-52)
Male gender, n (%)	287 (90)
Etiology of HCC, n (%)	
Hepatitis C	204 (63.9)
Hepatitis B	27 (8.5)
Hepatitis C and B	20 (6.3)
Hepatitis C and alcohol	63 (19.7)
Alcohol	4 (1.3)
Other	1 (0.3)
HCC diagnosis made within screening, n (%)	174 (54)
Alfa-fetoprotein ¹	76.8 (7.4-616)
CDC C stage, n (%)	100 (31)
HIV viral load < 50 copies/mL, n (%)	237 (74)
CD4 cell count (cells/mL) ¹	358 (196-555)
Antiretroviral therapy, n (%)	279 (87)
Child-Turcotte-Pugh stage, n (%) ²	
A	160 (52)
B	99 (32)
C	50 (16)
MELD score ¹	10 (7-13)
Unicentric HCC, n (%)	163 (51)
Milan criteria, n (%)	118 (37)
Vascular invasion, n (%)	89 (28)
Extra-hepatic metastases, n (%)	35 (11)
Barcelona-Clinic Liver Cancer stage, n (%)	
0	6 (2)
A	115 (36.3)
B	26 (8.2)
C	111 (35)
D	59 (18.5)

¹Median (Q1-Q3); ²Available in 310 patients.

RESULTS

Table 2. Treatment strategies for HCC.

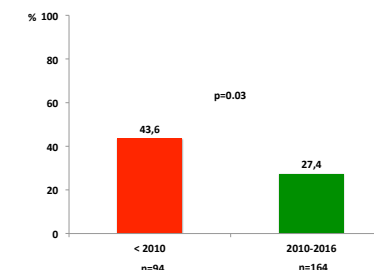
Treatment	N (%)
Curative therapies, n (%)	106 (33.4)
Surgical resection	31
Ablative therapies	50
Liver transplantation	25
Non curative therapies, n (%)	101 (31.9)
TACE	61
Sorafenib	40
No therapy, no (%)	110 (34.7)

In patients receiving more than one course of treatment against HCC, the first course of therapy is indicated. In patients treated with combined strategies (i.e. down staging therapies prior to liver transplant), the most efficacious therapy is indicated.

Mortality

223 (70%) patients died, 179 of them due to HCC.

Figure 1. Proportion of patients not receiving treatment for HCC or receiving less effective therapy than indicated by BCLC stage according to the year of HCC diagnosis.



Conversely, the proportion of HCC cases diagnosed at stage 0/A increased in the second period (36 out of 128 [28%] vs. 85 out of 190 [45%]; $p<0.001$).

Table 3. Treatment strategy received according to BCLC stage at diagnosis.

	Stage 0/A N=121	Stage B N=26	Stage C N=111	Stage D N=59
BCLC recommended therapy	Curative therapies	Chemoembolization	Sorafenib	No therapy
Recommended therapy or more effective, n (%)	91 (75%)	17 (65.4%)	64 (57%)	
More effective	-	4 (15.4%)	35 (31%)	14 (23.7%)
Recommended	91 (75%)	13 (50%)	29 (26%)	-
Less effective therapy or no therapy, n (%)	30 (25%)	9 (34.6%)	47 (43%)	
Less effective	20 (16.5%)	2 (7.6%)	-	
No therapy	10 (8.5%)	7 (27%)	47 (43%)	45 (76.3%)

The proportion of patients receiving no/less effective therapy varied according to the BCLC stage. Thus, it was 25%, 34.6% and 43% in patients at BCLC stage 0/A, B and C, respectively ($p<0.0001$).

CONCLUSIONS

✦ A high proportion of HIV-infected patients diagnosed of HCC did not receive therapy or receive less effective treatment as recommended by its BCLC stage. This situation becomes more frequent as HCC diagnosis is made in a more advanced stage.

✦ However, the access to therapy has improved in the recent years, probably as a consequence of the increase in the proportion of HCC cases that are diagnosed in earlier stages.