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Differences in surveillance for HCC in HIV- infected patients with and without HCV/HBV co-infection: insights from the **LIVEHIV cohort**

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Background:

- Hepatocellular carcinoma (HCC) is a deadly complication of compensated advanced chronic liver disease (cACLD) and hepatitis B.
- HCC surveillance is recommended with ultrasound and alpha-fetoprotein in HIV infected patients with cACLD or hepatitis B co-infection.
- We aimed to assess adherence rate to HCC surveillance in patients enrolled into the real-life LIVEr disease in HIV (LIVEHIV) cohort.

Methods:

- We included patients followed for >12 months and eligible for HCC surveillance
- cACLD was defined as:
 - Liver stiffness measurement (LSM) ≥ 10 kPa in HIV mono-infection and HIV/HCV co-infection; or HIV/HBV co-infection regardless of LSM.
- Adherence to surveillance was defined as:
 - At least yearly examination for ultrasound
 - Twice-yearly determination for alpha-fetoprotein.

Results:

154 patients were included (22% HIV mono-infected with cACLD, 37% HIV/HCV co-infected with cACLD, 41% HIV/HBV co-infected).

Table 1. Baseline characteristics reported as mean (standard deviation) for continuous variables and percentage for categorical variables.

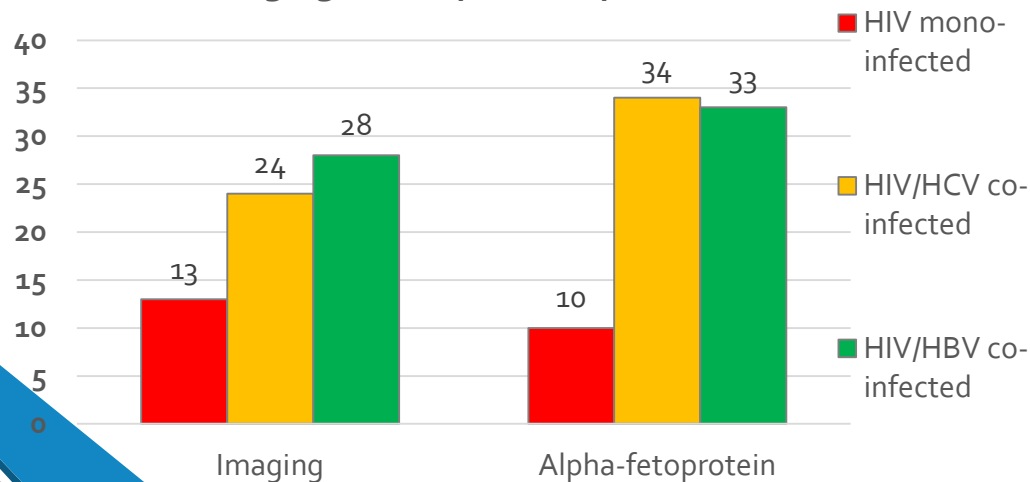
	HIV mono-infected n=34	HIV/HCV co-infected n=57	HIV/HBV co-infected n=63
Age (years)	52.6±9.8	52±8.4	51±9.3
Male Sex	94.1%	70.1%	76.1%
Duration of HIV (years)	15.9±7.7	17.9±7.7	16.2±8.2
Undetectable HIV viral load (<50 copies/μL)	70.5%	71.9%	50.7%
CD4 cell count	646.8±376	552.2±313.1	626.2±358.2
Duration of follow up (months)	34.7±16	15.8±16.4	13.9±15.7
LSM (kPa)	14.9±6.7 (range 10-63.9)	20.2±11.8 (range 10-69.1)	7.7±8.7 (range 2.7-39.7)

Results:

A comparison of HCC surveillance in each group is shown in Figure 1.

- Adherence rate by ultrasound was similar among groups.
- Conversely, adherence rate by alpha-fetoprotein was lower in HIV mono-infection ($p=0.005$).

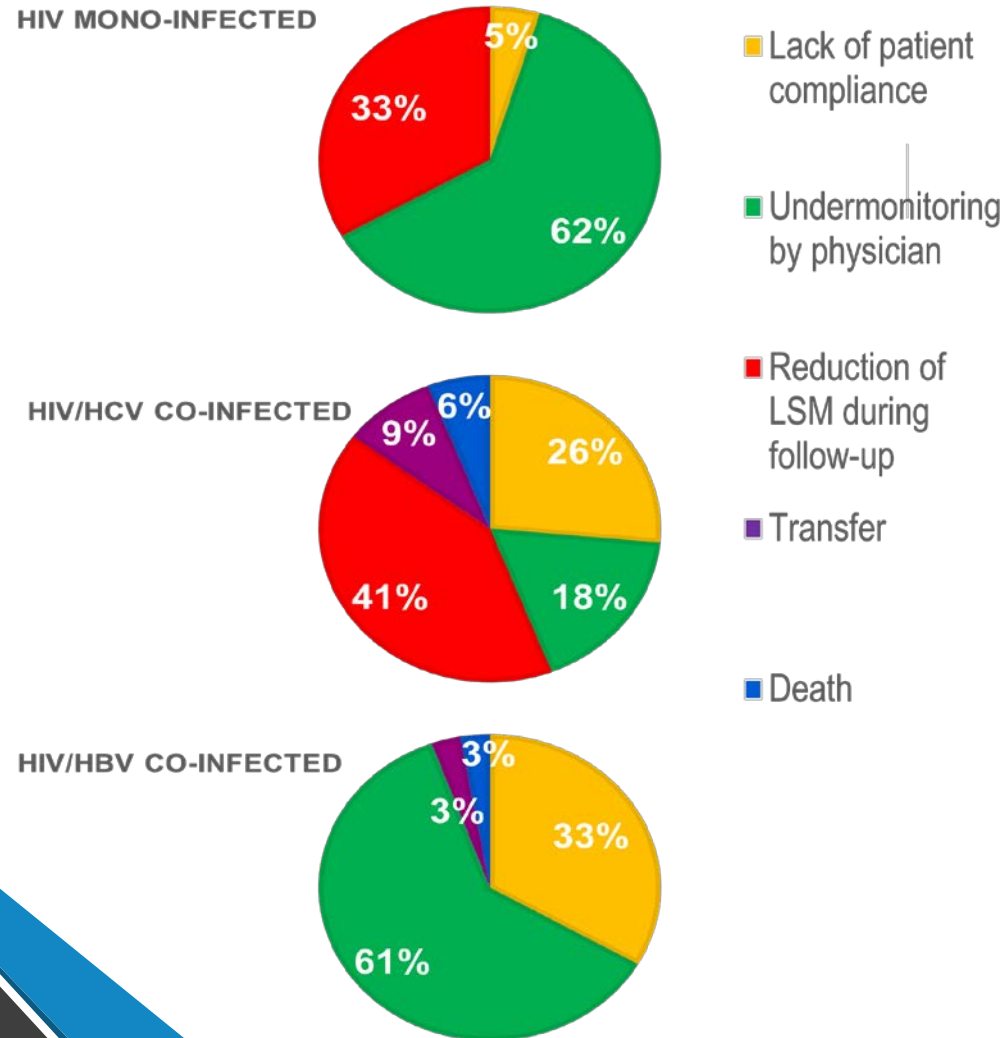
Figure 1. Adherence to HCC surveillance by Imaging and Alpha-fetoprotein



- Under monitoring by physician was more frequent in HIV mono-infection and HIV/HBV co-infection ($p<0.001$).
- Lack of patient compliance was more frequent in HIV/HCV and HIV/HBV co-infection ($p=0.03$), due mainly to alcohol/drug abuse, psychiatric conditions and long distances to reach the hospital.
- In HIV/HCV co-infection, surveillance for HCC was discontinued mostly following reduction in LSM after HCV antiviral treatment ($p<0.001$).
- During a median follow-up of 15 months, incidence of HCC was 1.3%.

Results:

Figure 2. Reasons for lack of adherence to HCC surveillance by group.



Conclusion:

- Adherence to HCC screening is suboptimal in HIV mono-infected patients.
- Efforts should be focused in improving physician awareness and facilitate access to care for disadvantaged patients.

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