Abstract #808

Clinical correlates of alcohol use disorders among HIV-infected adults in Zambia

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Background

- Alcohol use among HIV-infected individuals influences antiretroviral therapy (ART) outcomes and mortality.
- Alcohol consumption patterns and their impact on HIV care and outcomes are not well described in African settings.
- In an urban cohort of HIV-infected ART naïve Zambian adults we described the prevalence and correlates of alcohol use, including markers of liver disease.

Methods

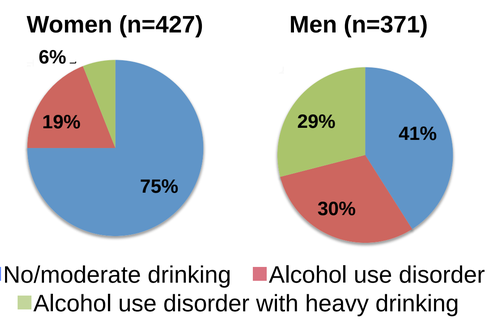
- At ART initiation, we screened HIV-infected adults (18+ years old) at two public clinics in Zambia's capital Lusaka for alcohol use disorders using the World Health Organization's Alcohol Use Disorders Identification Test Consumption (AUDIT-C) questions.
- Each drink was standardized to a typical local beer containing 10 grams of alcohol/unit
- With AUDIT-C, ≥3 points in women and ≥4 points in men were suggestive of an alcohol use disorder (AUD).
- Using AUDIT-C data, we categorized patients as follows:
  - ❑ No/minimal drinking without alcohol use disorder
  - ❑ Alcohol use disorder but less than 3 drinks/day
  - ❑ Alcohol use disorder with heavy chronic drinking (>3 drinks/day)
- We compared patient demographic and clinical characteristics by alcohol use category using Chi square and Wilcoxon rank sum tests.
- With bivariable and multivariable logistic regression we investigated the association of alcohol use category with markers of liver disease including ALT, AST, AST/ALT >2, AST-to-platelet ratio index (APRI) >1.5, FIB-4 >3.25, and liver stiffness measurement (LSM) obtained by vibration controlled transient elastography (FibroScan).

AUDIT Consumption Questions

	Never	Monthly or less	2-4 times a month	2-3 times a week	4+ times a week
How often do you have a drink containing alcohol?					
	1 or 2	3 or 4	5 or 6	7 to 9	10+
How many standard drinks do you have on a typical day when you are drinking?					
	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
How often do you have 6 or more standard drinks on one occasion?					

Results

- 798 HIV-infected adults (54% women, median age 34y, median CD4+ 228, 12% HBsAg-positive), enrolled at the time of ART initiation.
- Based on AUDIT-C, alcohol use disorders were present in 40.7% and were significantly more common among men (P<0.001).
- The time from HIV diagnosis to linkage to care was similar between those who did and did not report drinking, as were the initial WHO stage, and CD4+ count.



Characteristics of 798 HIV-infected Zambian adults

	No/min. drinking (n=473)	Alcohol use disorder (n=190)	Heavy drinking (n=135)	P
Age, years				
18-29	134 (28)	56 (29)	34 (25)	0.145
30-39	200 (42)	91 (48)	71 (53)	
40+	139 (30)	43 (23)	30 (22)	
Sex				
Female	320 (67)	80 (42)	27 (20)	<0.001
Male	153 (33)	110 (58)	108 (80)	
WHO stage				
1 or 2	262 (56)	108 (58)	65 (48)	0.166
3 or 4	206 (44)	77 (42)	70 (52)	
CD4 count				
<200	214 (46)	78 (42)	56 (42)	0.461
200+	249 (54)	110 (58)	77 (58)	
HBsAg status				
Negative	428 (90)	159 (84)	112 (84)	0.015
Positive	45 (10)	31 (16)	22 (16)	
Tuberculosis				
Yes	402 (85)	162 (85)	112 (83)	0.822
No	71 (15)	28 (15)	23 (17)	
Median time dx to linkage to care, days	22 (7-72)	24 (7-73)	25 (7-77)	0.636

Conclusions

- Based on a brief questionnaire, alcohol use was common among HIV-infected urban Zambian patients (particularly men) but was not associated with delayed HIV care entry.
- Although it was associated with elevated serum transaminases, heavy drinking was not associated with elevated markers of liver fibrosis and cirrhosis.
- Further research is needed to determine optimal approaches to screening for and managing alcohol use disorders within HIV treatment programs in Africa.

Markers of liver disease in patients reporting heavy drinking versus others

Odds ratio with 95% CI

*Adjusted for age, sex, WHO stage, and HBsAg status

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