OA-010 PREVALENCE AND CLINICAL SIGNIFICANCE OF SCHISTOSOMIASIS-CHRONIC HEPATITIS B VIRUS CO-INFECTION IN ZAMBIA

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Background Hepatosplenic schistosomiasis (HSS) and hepatitis B virus (HBV) are both endemic in sub-Saharan Africa but the clinical epidemiology of co-infection is not well-characterised. Within a current HIV cohort study, we assessed the prevalence of HSS and its impact on markers of liver fibrosis in HIV-HBV co-infected individuals.

Methods At two urban HIV care facilities in Zambia's capital Lusaka, we screened for HBV co-infection using a hepatitis B surface antigen (HBsAg) test and for lifetime infection with *Schistosoma mansoni* using an IgG enzyme-linked immunoassay (Abcam, Cambridge, UK). Among HIV-HBV patients, we also performed abdominal ultrasonography. We defined HSS as evidence of periportal hepatic fibrosis on ultrasound regardless of IgG result. Patient characteristics, including liver fibrosis markers (ALT and transient elastography) were measured and stratified by HSS. We used Wilcoxon rank sum test for continuous and chi-square test for categorical comparisons between groups.

Results Among 895 HIV-infected adults, lifetime exposure to *S. mansoni* was observed in 23.3%. Within the cohort 92 HBsAg-positives underwent assessment for HSS. Median age

among these was 34.7 years (interquartile range [IQR], 28.9–39.9), 48% were men, CD4 count was 247 cells/mm3 (IQR, 145–335), HBV viral load was 2.87 (IQR, 1.00–5.18) log10 IU/mL, and liver stiffness was 5.5 kilopascals (IQR, 4.7–6.9).

On ultrasound, 1 patient had cirrhosis and 36 (39.1%) had evidence of HSS. HBV-HSS patients had a non-significant trend toward higher portal vein diameter (8.5 versus 10.2; p=0.15) compared to those without HSS but ALT (18.5 *vs* 20 U/L), and liver stiffness (5.3 *vs* 5.0 kPa) were similar between groups (both p >0.05).

Conclusions Lifetime *S. mansoni* exposure and current HSS were common among HIV-infected patients with HBV co-infection in Zambia. Mild HSS did not appear to alter non-invasive markers of liver fibrosis. Further research on the impact of more advanced HSS on HBV co-infection is needed.