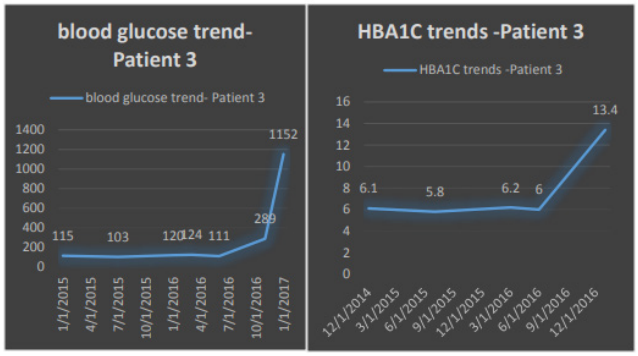
Figure 3- Trends of glucose and HBA1c levels of Patient 3.



Disclosures. **All authors:** No reported disclosures.

346. Factors Associated with Hypertension in Young Adults with Perinatally-Acquired HIV Infection: a Case–Control Study

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Session: 44. HIV Complications: Cardiovascular, Metabolic, and Other Complications
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Background. The incidence of systemic hypertension (HTN) among perinatally-HIV-infected (PHIV) patients appears to increase as they enter adulthood. Among non-perinatally HIV-infected adults both traditional and HIV-associated risk factors have been found to contribute to HTN. Whether these same factors contribute to HTN in PHIV is unknown. The purpose of this study was to determine the socio-demographic, clinical, virologic, and immunologic factors associated with HTN among a cohort of PHIV adolescents and young adults, aged ≥18 years.

Methods. We conducted a case–control study among a population of 160 PHIV adults with and without HTN who were receiving care at the University of Maryland and aged 18–35 years as of December 31, 2017. Covariates assessed included traditional risk factors such as age, family history of HTN, and smoking, as well as HIV- and antiretroviral-associated covariates.

Results. We identified 49 HTN cases (30.6%) and 111 (69.4%) controls. There were no significant differences in the odds of most traditional (age, gender, race, family history of HTN, tobacco, alcohol, and/or other drug use) or HIV-associated (CD4 nadir <100 cells/mm3, individual ART exposure, ART interruption) risk factors among PHIV adults with HTN compared with those with no diagnosis of HTN. Cases had lower odds of a history of treatment with lopinavir/ritonavir (LPV/r). Cases had 3.7 (95% CI 1.11, 12.56) times the odds of a prior diagnosis of chronic kidney disease (CKD) compared with controls after controlling for CD4 nadir and ARV treatment history.

Conclusion. The results of this study suggest that most traditional and HIV-related risk factors do not appear to increase the odds of having HTN in this PHIV cohort. However, HTN among PHIV may be driven in part by CKD, and a focus on the prevention and early management of CKD in this group may be necessary to prevent the development of HTN. Additionally, there may be as yet unidentified risk factors for HTN among PHIV which require further exploration. Given the large and growing population of PHIV entering adulthood worldwide, it is imperative to explore risk factors for and effects of HTN in large, diverse PHIV populations.

Disclosures. **All authors:** No reported disclosures.

347. Hepatic Steatosis in People Living with HIV: Effect of Sex and Race/Ethnicity

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Background. Recent studies have shown increased weight gain and visceral adiposity in people living with HIV (PLWH) treated with integrase strand transfer inhibitors (INSTI), mostly among women, Blacks and Hispanics. A potential association of INSTI with hepatic steatosis (HS)—which has been associated with increased atherosclerotic cardiovascular disease (ASCVD) risk in the general population—has never been evaluated. We sought to evaluate the prevalence of HS among PLWH on ART, its association with race/ethnicity and INSTI exposure and its association with ASCVD risk.

Methods. All patients on stable ART in a large urban clinic were included in the analysis. We calculated Hepatic Steatosis Index (HSI = 8 × (ALT/AST ratio)+BMI (+2, if female; +2, if diabetes mellitus) in all patients and Controlled Attenuation Parameter (CAP) score in a subset that underwent transient elastography. The effects of ART class, race and ethnicity on HSI and CAP were examined using linear regression models adjusting for age. We also correlated HSI with CAP and with ASCVD risk score.

Results. Among the 3122 patients analyzed, 84.6% were male, 45.1% Black (B), 22.5% Hispanic (H), and 30.0% non-Hispanic Whites (NHW). Mean age was 42 years. ART regimens were INSTI-based (n = 1777), PI (n = 723) or NNRTI (n = 302). A subset of 77 patients underwent transient elastography. There was no significant difference in mean BMI between INSTI (27.87), PI (27.70) and NNRTI (28.26) recipients (P = 0.49). However, HSI was lower for PI (35.99) than for INSTI (36.73) and NNRTI (37.46) groups (P = 0.02). Age is also significantly associated with his (P < 0.01). Mean HSI was higher for H (37.54) than non-Hispanics (36.56 for B and 36.19 for NHW); P = 0.001. HSI was highly correlated with ASCVD risk score (R=0.1; P < 0.001). There was also a strong correlation between HSI and CAP (R=0.45; P < 0.001), and a trend toward high CAP for H vs. B and W (P = 0.11).

Conclusion. HSI increased with age and was significantly associated with ASCVD risk score, suggesting that HS in PLWH might predict higher ASCVD risk. Hispanics had higher HSI and higher CAP than Blacks and Whites. We did not observe an increased BMI or HS with INSTI exposure in this cohort. PI use was associated with lower risk of HS.

Disclosures. **All authors:** No reported disclosures.

348. Kidney Function Decline Among HIV-infected Thai Adults: Is Low Vitamin D One of the Factors?

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Background. The prevalence of both hypovitaminosis D and Chronic Kidney disease (CKD) are high among Thai HIV-infected adults. Therefore, we examined the association of hypovitaminosis D and kidney function decline among HIV-infected Thai adults.

Methods. Using data prospectively collected from the HIV-NAT long-term cohort, we selected patients who were on ART, and virologically suppressed for ≥6 months. Baseline was defined as when the patient had a serum 25 OHD measured, with estimated Glomerular filtration rate (eGFR) above 60 mL/minute. Participants with eGFR measured at least twice a year were analyzed in the study. The primary outcome was kidney function impairment assessed as eGFR decline. Generalised estimating equations (GEE) were used to assess associations between the outcome and patient comorbidities and disease-related characteristics, including age, sex, body mass index (BMI) hypertension, gout, diabetes mellitus, co-infections with Hepatitis B or C viruses HIV-viral load and co-variate interactions with vitamin D status defined as normal, insufficient or deficient.

Results. A total of 435 participants were observed longitudinally through observations over the median follow-up of 24 (IOR 12–48) months. The median age of the participants was 46.6 (IOR 38.06–54.29) years. Median serum 25 OHD was 23.4 (IQR 18.5–29) ng/mL, and 209 (48%) and 126(29%) had insufficient and deficient 25 OH levels, respectively. Median baseline eGFR was 95 (IQR 82.70–104.93) mL/minute/l.73 m^2. We found a significant interaction between BMI and vitamin D concentration (P = 0.02). In our multivariate model, the adjusted mean predictions of eGFR change at 24 months for patients with BMI ≥25 kg/m^2 and deficient, insufficient and sufficient vitamin D were 89.8 (88.3–91.4), 91.2 (90.1–92.4) and 92.8 (91.3–94.4), respectively. In those with BMI <25 kg/m^2 and deficient, insufficient and sufficient Vitamin D the adjusted mean predictions in eGFR change were 92.0 (91.1–93.0), 91.6 (90.9–92.3) and 92.3 (91.3–93.3), respectively.

Conclusion. HIV-infected Thai adults with high BMI (25 and above) but who are vitamin D deficient had a statistically significant eGFR decline. Further studies in larger populations with multi-ethnic groups are warranted.