Retinovascular pathology identified by fundoscopy and OCTA is shown in the figure. The FAZ area was 0.31 (SD±0.10) mm². The remaining 5 eyes had focal areas of nonperfusion around the FAZ. Mean FAZ area and vessel density (VD) from the superficial capillary plexus (SCP) – were reviewed qualitatively and metrics of microvascular health – the foveal avascular zone (FAZ) area and vessel density (VD) from the superficial capillary plexus (SCP) – were calculated by ImageJ.

Results. The median age was 39 years, 100% were male, 100% were black, 25% had ever smoked, and median body mass index was 25.4 kg/m². Median time since HIV diagnosis was 19 years, all patients had a history of clinical AIDS, including 2 with prior cytomegalovirus retinitis. Median current CD4 count was 84 cells/mm³, 100% were prescribed antiretroviral therapy and 50% had HIV viral suppression. Ofotokun, MD, MSc; Ighovwhera Ofotokun, MD, MSc; "Division of Infectious Diseases, Department of Medicine, Emory University School of Medicine, and Grady Healthcare System, Infectious Diseases Program, Atlanta, GA; Emory University School of Medicine, Atlanta, Georgia; Feinberg School of Medicine, Northwestern University, Chicago, Illinois; "Emory University, Atlanta, GA

Conclusion. The primary admission diagnoses for PLWH has shifted from HIV to non-communicable causes as PLWH are living longer. PLWH are typically younger on admission and have more expensive hospitalizations than HIV-negative patients.

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949. Use of Optical Coherence Tomography Angiography to Assess Microvascular Health Among Persons with HIV: Employing the Retina as a Convenient Window

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Session: P-44. HIV: Complications and Special Populations

Background. Mechanisms underlying the rising burden of non-AIDS comorbidities (NACM) among persons with HIV (PWH) remain unclear. Microvascularopathy may link HIV-related chronic inflammation and premature multimorbidity, similar to diabetes and other conditions characterized by inflammatory end-organ damage. We used a novel retinovascular imaging tool, optical coherence tomography angiography (OCTA), to evaluate the retina as a convenient assessment of microvascular health among PWH.

Methods. Data from 4 PWH who underwent OCTA (Zeiss CIRRUS® HD-OCT 5000) at the Emory Eye Center from 2018-2020 were analyzed. Demographics, HIV-specific indices and NACM were summarized at the time of OCTA. Images were reviewed qualitatively and metrics of microvascular health – the foveal avascular zone (FAZ) area and vessel density (VD) from the superficial capillary plexus (SCP) – were calculated by ImageJ.

Results. The median age was 39 years, 100% were male, 100% were black, 25% had ever smoked, and median body mass index was 25.4 kg/m². Median time since HIV diagnosis was 19 years, all patients had a history of clinical AIDS, including 2 with prior cytomegalovirus retinitis. Median current CD4 count was 84 cells/mm³, 100% were prescribed antiretroviral therapy and 50% had HIV viral suppression. Prevalent NACM included (each n=1): hypertension, dyslipidemia, diabetes, chronic kidney disease and asthma.

Qualitatively, all 7 of the eyes evaluated by OCTA had evidence of microvascular pathology: 2 eyes demonstrated diffuse capillary nonperfusion, while the remaining 5 eyes had focal areas of nonperfusion around the FAZ. Mean FAZ area was 0.31 (SD±0.10) mm² and mean VD of the SCP was 43.9% (SD±10.9%). Retinovascular pathology identified by fundoscopy and OCTA is shown in the figure.

Conclusion. Among patients with longstanding HIV, OCTA identified microvascular abnormalities in all retinas examined. Retinovascular evaluation by OCTA is a feasible, non-invasive technique for assessing microvascular health and findings support additional study in a larger, more diverse group of PWH. Screening tools targeting microvascularopathy among PWH may aid in earlier detection of those at greatest risk of NACM and allow for aggressive risk-modification strategies.

Disclosures. All Authors: No reported disclosures

950. Venous Thromboembolism in Persons Living with HIV (PLWH): A Single Center Retrospective Cohort Study

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Session: P-44. HIV: Complications and Special Populations

Background. Data on risk of thromboembolism in PLWH is limited. HIV is often recognized as a chronic inflammatory disease and has been recognized as a prothrombotic condition. We aimed to analyze the incidence and demographic of venous thromboembolism such as pulmonary embolism and deep vein thrombosis in PLWH admitted to our hospital.

Methods. We conducted a retrospective hospital cohort study on PLWH ≥ 18 years old who were admitted to our hospital between 09/01/2018 and 09/01/2019. Study individuals were recruited if they had complete laboratory profile and well-defined clinical outcomes. Demographic, clinical and laboratory data were reviewed and retrieved. Descriptive analysis was employed to describe the demographic profile of PLWH with venous thromboembolism.

Results. Out of the 192 hospitalized PLWH during the study period, 15 (8%) patients had documented deep vein thrombosis (DVT) and/or pulmonary embolism (PE). History of DVT/PE was present in 5 (33%) patients while the rest had new onset of DVT/PE. Out of the 15 patients, 4 (27%) had DVT and PE, 4 (27%) had only DVT and 7 (46%) had only PE. The median age was 57 years, ranged from 40 to 74 years; 4 males and 11 females. As for ethnicities, 2 Caucasian, 12 were African American and 1 Hispanic.

The average D-dimer was 4491. The median CD4 count for PLWH with venous thromboembolism was 487 and a median viral load of 900. In contrary, the median CD4 count of PLWH without venous thromboembolism was 420 and median viral load of 140. Though not statistically significance, higher viral load seems to associate with risk of venous thromboembolism. Surprisingly, female gender is an independent risk factor for venous thromboembolism in PLWH (z-score 2.75, p=0.0059; odds ratio [OR], 4.67; 95% confidence interval [CI], 1.56-13.69).

Conclusion. Among patients with longstanding HIV, OCTA identified microvascular abnormalities in all retinas examined. Retinovascular evaluation by OCTA is a feasible, non-invasive technique for assessing microvascular health and findings support additional study in a larger, more diverse group of PWH. Screening tools targeting microvascularopathy among PWH may aid in earlier detection of those at greatest risk of NACM and allow for aggressive risk-modification strategies.

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