Methods. This retrospective observational study evaluated BMI and ASCVD risk score changes in virologically suppressed PLWH who switched from TDF to TAF without switching any other ART regimen components. Adult patients on TDF for ≥1 year with two consecutive HIV viral loads <200 copies/mL in the year prior to a TAF switch were included. Bodyweight, BMI, cholesterol, ASCVD risk score, and other variables were collected for the year prior to and following the switch. The unadjusted distributions of pre- and post-switch values were compared with the Wilcoxon signed-rank test. Repeated-measures generalized estimating equations were constructed to evaluate changes in BMI and ASCVD risk scores associated with TDF to TAF switches. These were adjusted for predictors retained in the model if their *P*-values were <0.05. ASCVD risk scores were skewed right, so those data were log-transformed prior to modeling.

Results. A total of 110 patients met the criteria and were included for analysis (Table 1). In unadjusted analyses, there were significant increases in weight, BMI, total cholesterol, LDL, HDL, and ASCVD score in the year after switching from TDF to TAF (each $P \leq 0.01$, Table 2). Only gender was retained in the adjusted BMI model, which suggested switching from TDF to TAF lead to an increase of 0.45 kg/m^2 in the expected mean for BMI (95% CI: 0.14, 0.76). Age, gender, race, concomitant medications that can cause weight gain, and time since HIV diagnosis were retained as covariates in the adjusted ASCVD model. This model suggested that switching from TDF to TAF was associated with a 13% increase in the expected mean for ASCVD risk score (95% CI: 4%, 23%).

Conclusion. We observed significant increases in BMI and ASCVD risk in PLWH 1 year following a switch from TDF to TAF without changes in other ART regimen components. The mechanism of these metabolic changes is unclear and requires further study.

Table 1. Descriptive Summary, n = 110.

	All (n = 110)	Min	Max
Age, mean (SD), min, max	50 (11.7)	24	77
Gender, n (%)			
Male	80 (72.7)		
Female	30 (27.3)		
Race, n (%)			
African American	64 (58.2)		
White	38 (34.5)		
Hispanic	6 (5.5)		
Asian	2 (1.8)		
Years since HIV diagnosis, median (IQR), min, max	12.0 (11.0)	2.0	34.0
Years on ART, median (IQR), min, max	8.0 (8.0)	1.0	29.0
Pre-switch CD4 count, median (IQR), min, max	627.5 (381.0)	138.0	1401.0
Pre-switch BMI category, n (%)			
Underweight	4 (3.6)		
Normal weight	34 (30.9)		
Overweight	31 (28.2)		
Obese	41 (37.3)		
Other ART agent, n (%)			
Integrase Inhibitor	54 (49.1)		
Protease Inhibitor	18 (16.4)		
Non-nucleoside Reverse Transcriptase Inhibitor	32 (29.1)		
Other	6 (5.4)		
Concomitant medication cause weight gain, n (%)	34 (30.9)		
Concomitant medication cause weight loss, n (%)	29 (26.4)		

Table 2. Outcomes Summary, n = 110.

	Pre-switch (TDF)	Post-switch (TAF)	Change (Post –Pre)	p-value
Weight (lbs.), median (IQR)	185.4 (55.8)	190.5 (60.5)	3.0 (9.2)	**< 0.01**
BMI (kg/m^2), median (IQR)	28.0 (10.8)	28.2 (10.0)	0.5 (1.4)	**< 0.01**
Total cholesterol, median (IQR)	173.8 (44.0)	195.0 (42.0)	12.5 (32.3)	**< 0.01**
LDL, median (IQR)	98.6 (40.2)	112.1 (46.6)	8.2 (21.0)	**< 0.01**
HDL, median (IQR)	51.0 (19.0)	55.8 (24.0)	3.0 (12.0)	**< 0.01**
Total to HDL cholesterol ratio, median (IQR)	3.5 (1.6)	3.5 (1.7)	0.1 (0.6)	0.25
Triglyceride levels, median (IQR)	103.5 (68.0)	109.5 (93.0)	4.0 (64.0)	0.28
Atherosclerotic CVD risk score, median (IQR)	6.9 (8.1)	8.1 (10.9)	0.4 (1.9)	**< 0.01**
Creatinine clearance, median (IQR)	104.0 (38.0)	102.5 (42.0)	-1.0 (17.0)	0.82

Disclosures. **All Authors:** No reported Disclosures.

980. Effects of Integrase Strand-Transfer Inhibitor Use on Lipids, Glycemic Control, and Insulin Resistance in the Women's Interagency HIV Study (WIHS)

Amalia Aldredge, MD[1]; Cecile D. Lahiri, MD, MS[2,3]; Nathan A. Summers, MD[2]; C. Christina Mehta, PhD, MSPH[4,5]; Christine D. Angert, BS[5]; Anne Marie Kerchberger, MD, MEng[1]; Sheri Weiser, MD, MPH[6]; Deborah Konkle-Parker, PhD, FNP[7]; Anjali Sharma, MD, MS[8]; Adaora A. Adimora, MD, MPH[9]; Hector Bolivar, MD[10]; Audrey L. French, MD[11]; Elizabeth T. Golub, PhD, MPH, MEd[12]; Seble Kassaye, MD, MS[13]; Deborah Gustafson, PhD, MS[14]; Igho Ofotokun, MD, MS[15,16] and Anandi N. Sheth, MD, MS[15,16]; [1]Emory University School of Medicine, Department of Medicine, Atlanta, Georgia; [2]Emory University School of Medicine, Department of Medicine, Division of Infectious Diseases, Atlanta, Georgia; [3]Atlanta Women's Interagency HIV, Atlanta, Georgia; [4]Atlanta Women's Interagency HIV, Atlanta, Georgia, [5]Emory University, Rollins School of Public Health, Department of Biostatistics and Bioinformatics, Atlanta, Georgia, [6]University of California San Francisco, San Francisco, California; [7]University of Mississippi Medical Center, Jackson, Mississippi; [8]Albert Einstein College of Medicine, Bronx, New York; [9]University of North Carolina at Chapel Hill, Chapel Hill, North Carolina; [10]University of Miami, Miami, Florida; [11]Rush University, Chicago, Illinois; [12]Johns Hopkins Bloomberg School of Public Health, Baltimore, Maryland; [13]Georgetown University Medical Center, Washington, DC; [14]SUNY Downstate Medical Center, Brooklyn, New York; [15]Emory University School of Medicine, Department of Medicine, Division of Infectious Diseases, Atlanta, Georgia; [16]Atlanta Women's Interagency HIV, Atlanta, Georgia

Session: 126. Suppressed but Still at Risk: Comorbidities
Friday, October 4, 2019: 11:30 AM

Background. Integrase strand transfer inhibitor (INSTI)-based antiretroviral therapy (ART) is recommended first-line HIV treatment. We recently demonstrated increased weight gain associated with INSTI use among women living with HIV (WLH) enrolled in the Women's Interagency HIV Study (WIHS), raising concern for cardiometabolic consequences. We, therefore, evaluated the effects of INSTI use on lipids, insulin resistance, and glycemic control in WLH.

Methods. Data from 2008 to 2017 were analyzed from WLH enrolled in WIHS. Women who switched to or added an INSTI to ART (SWAD group) were compared with women who remained on non-INSTI ART (STAY group). Outcomes included changes in fasting total cholesterol (TC), low-density lipoprotein (LDL), high-density lipoprotein (HDL), triglycerides (TG), and glucose; hemoglobin A1c; and incident insulin resistance (defined as homeostatic model assessment of insulin resistance [HOMA] score ≥2). Outcomes were measured 6–12 months before and 6–18 months after INSTI switch/add in the SWAD group with comparable time points in the STAY group. Linear regression models compared change over time in each outcome by SWAD/STAY group, adjusted for age, race, WIHS site, income, smoking status, statin use, and ART regimen at baseline.

Results. In total, 881 WIHS participants (182 SWAD and 699 STAY) were followed for a mean 1.8 (±1.1) years. Mean age was 49 (±8.8) years, BMI was 31 (±8.2) kg/m^2, and 49% were Black. At baseline, SWAD vs. STAY was more likely to report NNRTI (vs. PI)-based ART and statin use (both $P < 0.0001$), but all baseline lipid and glucose variables were similar. Compared with STAY, the SWAD group experienced significantly greater decreases in HDL (−2.4 vs. +0.09 mg/dL, $P = 0.03$) and trended toward greater decreases in TC (−2.6 vs. −2.4 mg/dL, $P = 0.07$) at follow-up, without significant differences in TG or LDL. The SWAD group had significantly greater increases in A1c (+0.08% vs. −0.05%, $P = 0.01$) but trended toward lower incidence of insulin resistance (19% vs. 32%, $P = 0.05$).

Conclusion. Despite reported increases in weight, INSTI use was associated with only modest changes in lipid measurements and glycemic control during short-term follow-up of WLH compared with non-INSTI ART. Research is needed to elucidate long-term cardiometabolic effects.

Table. Model-adjusted change over time in lipids and glucose measurements among groups switching to INSTI-containing regimen (SWAD) versus group staying on non-INSTI regimen (STAY).

Group	SWAD		STAY		Difference between means (SWAD-STAY)	
Outcome variable[a]	Mean Baseline	Mean change	Mean Baseline	Mean change		p-value[b]
Total cholesterol (mg/dL)	183.03	-2.55	181.46	+2.38	-4.93	0.07
LDL (mg/dL)	101.14	-0.78	99.34	+1.80	-2.58	0.28
HDL (mg/dL)	55.41	-2.43	57.19	+0.09	-2.52	0.03
Triglycerides (mg/dL)	132.47	-0.62	124.89	+2.23	-2.85	0.57
Glucose (mg/dL)	90.61	+4.20	94.05	+2.86	+1.34	0.47
Hemoglobin A1c (%)	5.76	+0.08	5.80	-0.05	+0.14	0.01

[a] Lipid profile and glucose measured from blood drawn after at least 8 hours fasting
[b] For mean difference by study group (SWAD versus STAY) from linear regression models for each outcome adjusting for age, race, income, education, current smoking status, baseline ART regimen, and baseline statin use

Disclosures. Anandi N. Sheth, MD, MS, Gilead Sciences, Inc.: Research Grant.

1820. Efficacy of Pulse-Taper Corticosteroid Adjunctive Therapy for Refractory Non-HIV Cryptococcal Meningoencephalitis

Seher Anjum, MD[1]; Peter R. Williamson, MD, PhD[2]; Bibiana Bielekova, MD[1] and Peter Kosa, PhD[1]; [1]National Institutes of Health, Bethesda, Maryland; [2]National Institute of Allergy and Infectious Diseases, Bethesda, Maryland

Session: 181. Advances in CNS Infections
Friday, October 4, 2019: 1:45 PM

Background. Cryptococcal meningoencephalitis (CM) affects individuals with AIDS, transplants recipients and those previously healthy, with 30–50% mortality in most groups despite anti-fungal treatment. In the previously healthy, a post-infectious inflammatory response syndrome (PIIRS) analogous to cryptococcal IRIS in AIDS patients has recently been described. PIIRS is defined as a deterioration in mental status and/or audio-visual capacity despite optimal treatment for CM and negative CSF cultures. Pathophysiology is related to excessive T-cell responses to lysed fungal cells during therapy but data on effective treatment regimens are limited.

Methods. Between March 2015 and February 2019, 11 consecutive patients with PIIRS who evidenced clinical deterioration over a period of up to 10 weeks despite effective antifungals were referred to the NIH clinical center. Patients were prospectively treated with adjunctive pulse solumedrol 1 g daily for 1 week followed by prednisone