Cannabis Use and Body Composition in People Living with HIV (PLWH) From the Miami Adult Studies on HIV (MASH) Cohort

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Objectives: Cannabis is the most prevalently used substance in the United States and among people living with HIV (PLWH). Underserved minorities living with HIV suffer from high rates of obesity. Yet, little is known about the implications of cannabis use on body composition in PLWH. Thus, we sought to determine the association between cannabis use and body composition PLWH.

Methods: In this cross-sectional study, participants were selected from the ongoing Miami Adult Studies on HIV (MASH) cohort. Cannabis use was self-reported and confirmed with urinalysis for cannabis along with other illicit drugs (American Bio Medica Corp, Kinderhook, NY). Participants were selected if they did not use any illicit drugs and excluded if they used illicit drugs other can cannabis. Informed consent, demographics, and anthropometrics were collected by trained personnel. HIV viral load (VL, copies/mL), and $CD4^+$ cells (cells/mL) were abstracted from medical records. Descriptive statistics were used to analyze demographics, cannabis use, overweight (BMI $\geq$ 25 kg/m^2) and VL (suppressed VL < 50 copies/mL). SPSS 26 was used to analyze the linear association between cannabis use and BMI. Logistic regression calculated the odds ratio (OR) of cannabis use and overweight status. Independent sample t-test compared $CD4^+$ cell count and VL between the cannabis-using and non-using groups.

Results: Participants' mean age was 53.6 $\pm$ 8.3 years (n = 346), 42.5% were female, 57.5% were Black, and 73.1% had a BMI $\geq$ 25 kg/m^2 (overweight). Cannabis users accounted for 34.1% of the sample. The frequency of participants with a suppressed VL was 80.3%. No significant differences in $CD4^+$ count or VL between the cannabis users and non-users (p > .05). Cannabis use was associated with a lower BMI adjusted for age, sex, race and ethnicity, $CD4^+$ count, and VL (b = −1.8 SE = 0.83, p = .03). Also, cannabis use was associated with reduced odds of being overweight after adjusting for age, sex, race and ethnicity, $CD4^+$ count, and VL (OR: 0.44, 95% CI: 0.23–0.83; p = 0.01).

Conclusions: The use of cannabis was associated with lower BMI and decreased odds of being overweight or obese. Cannabis use did not significantly affect crucial markers of HIV disease progression ($CD4^+$ count and VL) negatively. Longitudinal research is needed to further assess these associations and determine its medicinal efficacy in weight management.