

Crane, HM, Grunfeld, C, Harrington, RD, Ciechanowski, PS, & MM Kitahata. *Lipoatrophy among HIV-infected patients is associated with higher levels of depression than lipohypertrophy*. HIV Medicine, In press

ABSTRACT

Background: Body morphology abnormalities have been combined under the term lipodystrophy. We sought to determine the association between body morphology abnormalities and depression examining lipoatrophy and lipohypertrophy separately.

Methods: Observational cross-sectional study of 250 patients from the University of Washington HIV Cohort. Patients completed an assessment including depression and body morphology. We used linear regression analysis to examine the association between lipoatrophy, lipohypertrophy, and depression controlling for other covariates. ANOVA was used to examine the relationship between mean depression scores and lipoatrophy and lipohypertrophy in each of 10 body regions.

Results: Of 250 patients, 76 (30%) had lipoatrophy, and 128 (51%) had lipohypertrophy. Mean depression scores varied by body morphology, with the highest values among patients with moderate-to-severe lipoatrophy (16.4), intermediate values among those with moderate-to-severe lipohypertrophy (11.7), mild lipohypertrophy (9.9), and mild lipoatrophy (8.5), and the lowest values among those without body morphology abnormalities (7.7) ($p=0.002$). The relationship between body morphology and depression persisted after controlling for age, race, sex, HAART use, CD4⁺ count, and drug use. After adjustment, mean depression scores for subjects reporting moderate-to-severe lipoatrophy were 8.9 points higher ($p<0.001$), scores for subjects with moderate-to-severe lipohypertrophy were 5.6 points higher ($p=0.004$), and scores for subjects with mild lipohypertrophy were 2.9 points higher ($p=0.02$) than patients without body morphology abnormalities. Facial lipoatrophy was the body region associated with the most severe depression scores (15.5 versus 8.9 for controls, $p=0.03$).

Conclusions: In addition to long-term cardiovascular implications, body morphology abnormalities have a more immediate effect on depression severity.