**Obesity Among HIV-Infected Persons: Impact of Weight on CD4 Cell Count**

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**Results**

- Excess weight has been associated with several medical conditions in the general population including hypertension, diabetes, cardiovascular disease, and some cancers. The present study examined a unique cohort of HIV-infected persons.
- The cohort consisted of patients diagnosed in the pre-HAART era and for those diagnosed in the HAART era. The mean age of the study population was 29 years.
- Participants were divided into four BMI categories: normal weight, overweight, and obese. The mean CD4 counts at HIV diagnosis were 526, 551, 542, and 499 cells/mm³ for underweight, normal, overweight, and obese patients, respectively (Table 1).
- We also examined the CD4 percentage and found no overall significant difference between the BMI categories.
- In the multiply adjusted longitudinal models for those diagnosed in the pre-HAART era and in the multiply adjusted longitudinal models for those diagnosed in the HAART era, the mean post-diagnosis decrease in CD4 count was less as BMI category increased: -158, -125, -95, and -50 cells/mm³ respectively.
- Those who were underweight had a decline in the CD4 count over time whereas obese HIV patients also gained fewer CD4 cells than overweight patients (43 cells less, p=0.005).

**Conclusions**

- Higher BMI was associated with less decline in CD4 counts over time for pre-HAART patients.
- Obesity increased weight loss rates in HIV patients but the impact of a BMI on CD4 is less clear.
- Obesity may not be associated with overall rapid decline in CD4 levels regardless of HAART initiation.
- Obesity may also be related to the individual's overall immunological status.

**References**


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