

Treatment of HIV-Associated Wasting with Recombinant Human Growth Hormone: Monitoring of Body Composition Changes by Bioelectrical Impedance Analysis (BIA).

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INTRODUCTION:

Recombinant human growth hormone (r-hGH) has demonstrated efficacy in treating HIV-associated wasting (HAW), however, HAW has become less prominent since the introduction of highly active antiretroviral therapy (HAART). Recent studies suggest that patients receiving HAART may still experience HAW. We investigated the nature of HAW and the efficacy of r-hGH in these patients.

METHODS:

We treated 27 HIV-positive patients receiving HAART who had either recent loss of >5% body weight or weight <90% lower limit of normal with 12 weeks of r-hGH (6 mg given either daily or every other day). Body composition changes were monitored using bioelectrical impedance analysis (BIA). Results were assessed for all patients and for a subgroup meeting more stringent definitions of wasting (BIA phase angle $\alpha < 5.6$ degrees, $n = 14$).

RESULTS:

Significant increases from baseline in weight and body cell mass (BCM) occurred in the full population (medians: 2.0 kg weight, 1.5 kg BCM). Patients with phase angle $\alpha < 5.6$ degrees also showed increases in weight and BCM (medians: 2.5 kg weight, 1.95 kg BCM), and 10 of 14 showed improvements in the ratio of extracellular mass (ECM) to BCM. At follow-up there was a trend towards loss of the weight and BCM gained on treatment. Treatment was well tolerated.

CONCLUSION:

Patients receiving HAART continue to experience wasting, and respond well to r-hGH therapy as monitored by BIA.