

Search PubMed

Limits Preview/Index History Clipboard Details

Display AbstractPlus 20

All: 1 Review: 0

1: [Acta Endocrinol \(Copenh\).](#) 1991 Nov;125(5):449-53. [Links](#)

Long-term growth hormone treatment in growth hormone deficient adults.

[Jorgensen JO](#), [Pedersen SA](#), [Thuesen L](#), [Jorgensen J](#), [Moller J](#), [Muller J](#), [Skakkebaek NE](#), [Christiansen JS](#).

University Department of Internal Medicine and Endocrinology, Aarhus Kommunehospital, Denmark.

Growth hormone treatment in GH-deficient adults has proved beneficial in recent short-term trials, but long-term results have not yet been reported. Thirteen GH-deficient adults (4 females, 9 males; mean (SEM) age 26.4 (1.7) years), who had completed 4 months of GH therapy in a double-blind placebo-controlled cross-over study were followed, for further 16.1 (0.8) months of uninterrupted GH therapy in an open design. A significant mean increase of 1.3 cm in linear height was recorded, whereas body mass index remained unchanged. Mean muscle volume of the thigh, estimated by computerised tomography, increased significantly compared with that of the initial placebo period ($p = 0.01$), and a slight decrease was recorded in adipose tissue volume of the thigh ($p = 0.10$) and subscapular skinfold thickness ($p = 0.10$). Still, the muscle to fat ratio of the thigh was significantly lower compared with that of normal subjects (72.6/27.4 vs 77.9/22.1) (p less than 0.01). The mean isometric strength of the quadriceps muscles increased significantly during long-term GH therapy (p less than 0.01), but remained lower compared with that of normal subjects (1.66 (0.10) vs 2.13 (0.11) Nm/kg body weight). Exercise capacity performed on a bicycle ergometer increased significantly after long-term therapy (p less than 0.05), but still did not reach the values seen in normal subjects (22.5 (3.4) vs 37.4 (4.2) watt.min.kg⁻¹). No adverse reactions were recorded during long-term therapy and hemoglobin A1c remained unchanged. These data suggest that long-term GH replacement therapy in GH-deficient adults has beneficial effects on several physiological features which are subnormal in these patients.

PMID: 1759534 [PubMed - indexed for MEDLINE]

Display AbstractPlus 20

Related Links

Beneficial effects of growth hormone treatment in GH-deficient adults. [Lancet. 1989]

Three years of growth hormone treatment in growth hormone-deficient adults: near normalization of body composition and physical performance. [Eur J Endocrinol. 1994]

Growth hormone versus placebo treatment for one year in growth hormone deficient adults: increase in exercise capacity and normalization of body composition. [Clin Endocrinol (Oxf). 1996]

Replacement treatment with biosynthetic human growth hormone in growth hormone-deficient hypopituitary adults. [J Clin Endocrinol. 1995]

Effects of growth hormone replacement on physical performance and body composition in GH-deficient adults. [Clin Endocrinol (Oxf). 1999]

[See all Related Articles...](#)

[Write to the Help Desk](#)

[NCBI](#) | [NLM](#) | [NIH](#)

[Department of Health & Human Services](#)

[Privacy Statement](#) | [Freedom of Information Act](#) | [Disclaimer](#)