primary studies - published RCT

Effect of growth hormone on exercise tolerance in children with cystic fibrosis.

Code: PM11932561 **Year:** 2002 **Date:** 2002 **Author:** Hütler M

Study design (if review, criteria of inclusion for studies)

RCT, cross-over design

Participants

10 prepubertal children (mean +/- SD; age: 12.1 +/- 1.7 yr; height: 137.4 +/- 9.2 cm; body mass: 27.8 +/- 4.2 kg; forced expiratory volume in 1 s (FEV1): 68 +/- 22% predicted)

Interventions

control period (CON, standard therapy) or recombinant human growth hormone (GH) period (additional GH treatment, 0.11-0.14 IU.kg-1, daily, s.c.) for the first 6 months, then crossed

Outcome measures

At study entry and after each period, anthropometric data, pulmonary function, and exercise capacity (peak exercise capacity, .VO(2peak), and isokinetic muscle strength) were measured.

Main results

Changes in height (+4.3 +/- 1.0 cm), total body mass (+2.2 +/- 0.8 kg), and lean body mass (LBM, +2.9 +/- 0.7 kg) were significantly higher (P

Authors' conclusions

GH treatment clearly improved exercise tolerance, presumably resulting from the combined effects of GH on the muscular, cardiovascular, and pulmonary capacity.

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See also

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Keywords

Adolescent; Child; exercise; Growth Hormone; hormone; Hormones; non pharmacological intervention - devices OR physiotherapy; pharmacological_intervention; Recombinant Proteins;