primary studies - published RCT

Growth hormone improves clinical status in prepubertal children with cystic fibrosis: results of a randomized controlled trial.

Code: PM11713439 **Year:** 2001 **Date:** 2001 **Author:** Hardin DS

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

RCT

Participants

Nineteen prepubertal CF children

Interventions

control (NonTX, n = 9) or to daily injections of GH (0.3 mg/kg/wk) (GHTX, n = 10) for 1 year.

Outcome measures

Every 3 months height, weight, and lean tissue mass were measured. Caloric intake, resting energy expenditure, pulmonary function, and respiratory muscle strength were measured every 6 months, as were total number of hospitalizations and courses of outpatient intravenous antibiotics

Main results

The GHTX group had significantly greater height, height velocity (NonTX = 3.8 +/- 1.4 cm/y, GHTX = 8.1 +/- 2.4 cm/y; P =.002), weight, weight velocity (NonTX = 2.1 +/- 0.9 kg/y, GHTX = 4.5 +/- 1.1 kg/y; P =.004), and change in lean tissue mass (NonTX = 2.1 +/- 1.6 kg, GHTX = 4.7 +/- 1.7 kg; P =.01) analyzed by the Student t test. The GHTX group had significant improvement in delta forced vital capacity compared with the year before study, and respiratory muscle strength improved. The number of hospitalizations and outpatient intravenous antibiotic courses significantly decreased in the GHTX group but did not change in the NonTX group. No subject had development of cystic fibrosis-related diabetes.

Authors' conclusions

Results of the first randomized controlled trial of GH treatment in cystic fibrosis indicate that GH improves growth and clinical status.

http://dx.doi.org/10.1067/mpd.2001.117578

See also

J Pediatr. 2001 Nov;139(5):636-42.

Keywords

Child; Growth Hormone; Hormones; pharmacological_intervention;