

Growth effects of somatropin during the treatment congenital hypopituitarism in children after the start of puberty.

¹Bashnina E., ¹Berseneva O., ²Turkunova M.

¹NORTH-WESTERN STATE MEDICAL UNIVERSITY named after I.I.MECHNIKOV,

Therapeutic faculty, Department of endocrinology. Saint-Petersburg, Russia

²CHILDREN ENDOCRINOLOGY CENTER. Saint-Petersburg, Russia

Today the features of growth hormone (GH) therapy in children after reaching the beginning of puberty and the necessity of therapy in such age group are discussed.

Aim of our scientific work:

To identify the relationship between the growth increase after the start of puberty (patient's bone age achieved 12-13 years, according to the atlas Greulich) and the individual characteristics of the patients.

Methods:

34 patients with congenital isolated GH deficiency and with multiple pituitary hormone deficiencies were included in the study. All children received GH in the dose of 0,033 mg/kg/d and other hormonal replacement therapy, if it was necessary. Duration of GH therapy varied from 1 year to 4 years after the start of puberty.

Results:

- the growth difference between the start of puberty and the patient at the time of the study are significant ($p < 0.05$ using the nonparametric Wilcoxon matched pairs test).
- growth was increased after the start of puberty, while continuing GH therapy did not depend on the age of initiation of therapy (performed a correlation analysis with the calculation of pairwise Pearson coefficient $r = 0,22$, $p = 0.2$).

Conclusions:

- Our results have shown that growth hormone therapy is necessary after the start of puberty and does not require increasing doses of GH, despite the start of puberty.
- The growth in patients after the beginning of puberty and growth increase after GH continue therapy is significantly different and the total growth increase in patients treated after the start of puberty not depend on the age of initiation of therapy.