

Final height in patients with isolated growth hormone deficiency and multiple pituitary hormone deficiencies, treated with growth hormone

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To date a lot of data on the efficacy of growth hormone (GH) treatment of children with short stature was accumulated. GH is the major but not exclusive endocrine regulator of linear growth. Influence of multiple pituitary hormone deficiencies on the final growth remains poorly understood.

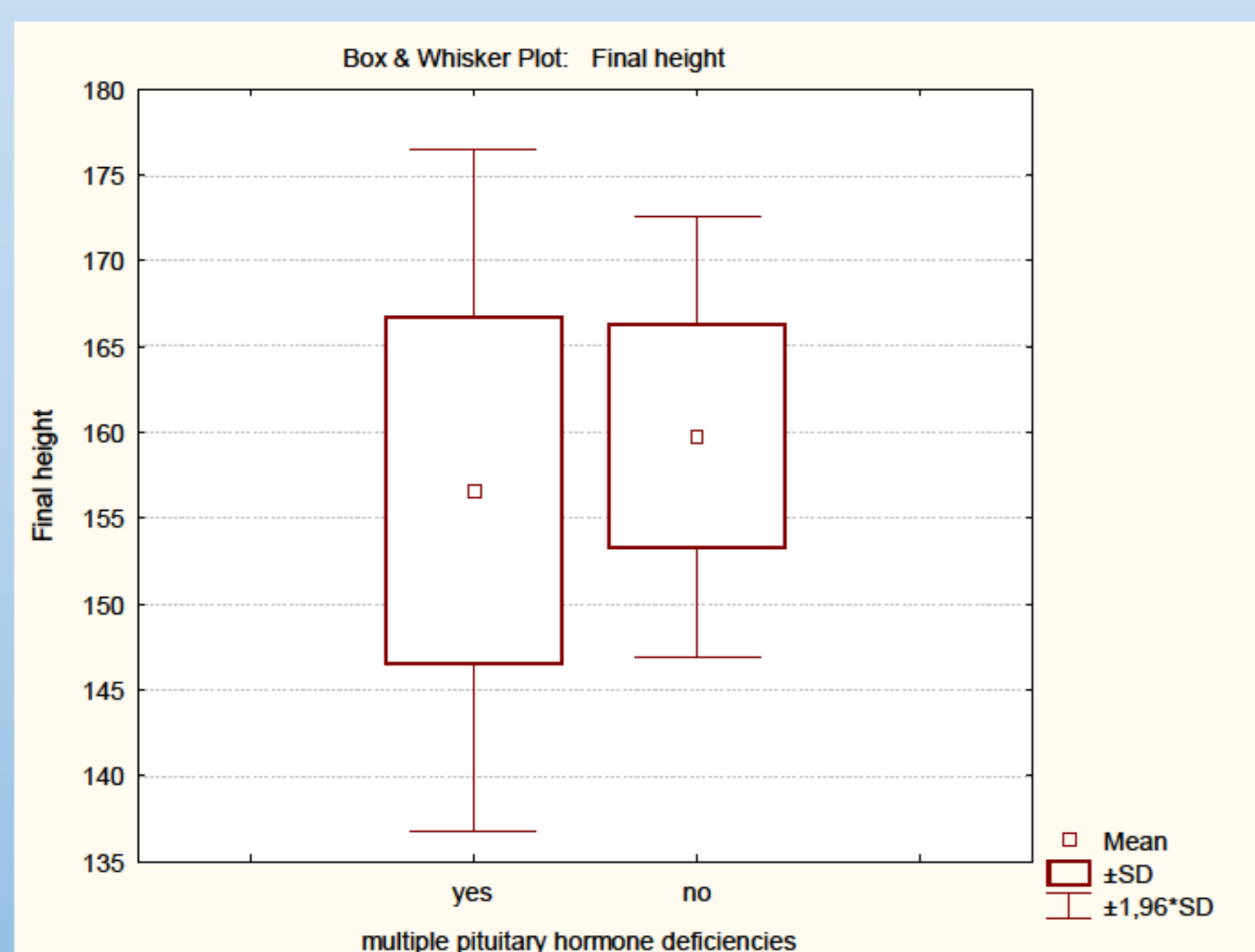
Aim of our scientific work:

To compare the results of treatment with GH in patients with isolated GH deficiency and multiple pituitary hormone deficiencies.

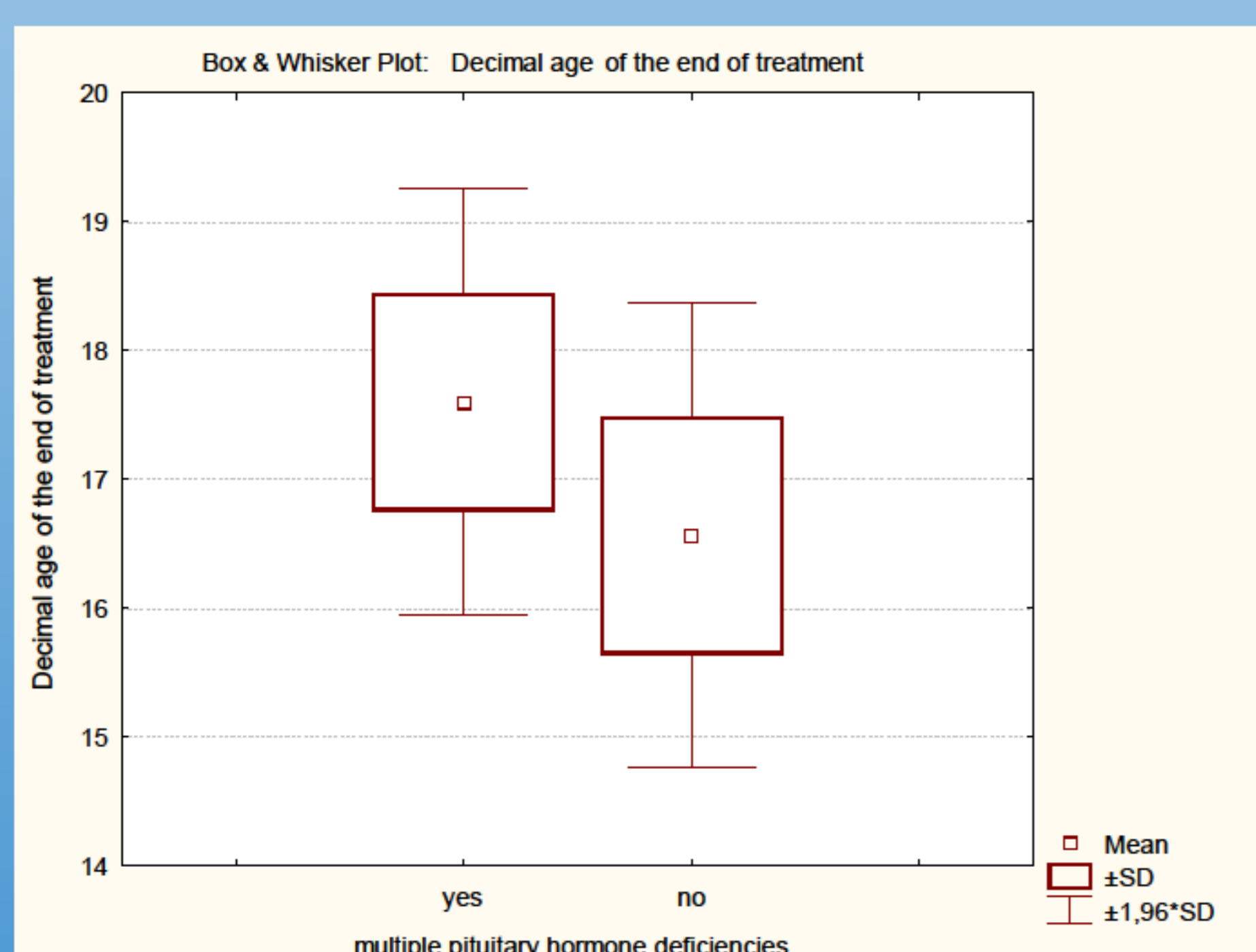
Methods:

15 patients with isolated GH deficiency and 10 patients with multiple pituitary hormone deficiencies were included. All children received GH ("Rastan", Russia) in a dose of 0,033 mg/kg/day and other hormonal replacement therapy if necessary. Final height was determined when patient's bone age achieved 16 years (according to the atlas Greulich).

Results:



Height of patients with isolated growth hormone deficiency was 153,8 (148,0-166,5) cm. The same indicator in children with multiple pituitary hormone deficiencies was 161,5 (157,8-164,0) cm. The difference was not significant ($p=0,65$ using Mann – Whitney U-test).



Decimal age of the end of treatment in patients with isolated GH deficiency was 16,0 (15,0-17,0) years and in children with multiple pituitary hormone deficiencies – 18,0 (17,0-18,0) years. The difference between two groups was significant ($p=0,01$ using Mann – Whitney U-test).

Conclusions:

Our results show that final height in patients with GH deficiency does not depend on the presence of multiple pituitary hormone deficiencies if its replacement therapy is appropriate. Final height in patients with multiple pituitary hormone deficiencies is achieved later, than in patients with isolated GH deficiency.

