

THE START PREDICTORS OF PUBERTY IN BOYS WITH CONSTITUTIONAL DELAY OF PUBERTY

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OBJECTIVE

To examine the clinical and hormonal predictors of start pubertal in boys with constitutional delay of puberty (CDP).

METHODS

The study included 42 boys with CDP (Tanner1, max LH>10 IU/l of GnRH stimulation test).

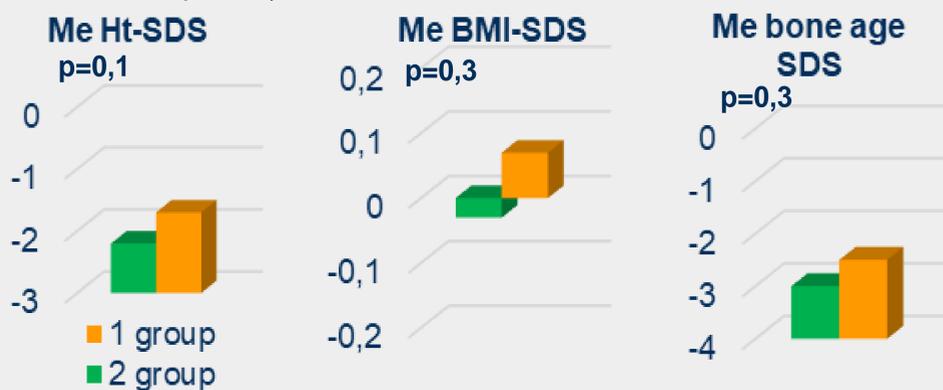
At the first visit in 14,5±0,7 years we evaluated anthropometric indicators, bone age, testicular volume and hormonal status.

At the second visit after 1 years, we evaluated stage of puberty on the Tanner scale. The patients were divided into two groups: *the first group* had Tanner≥2 (n=33), *the second group* had Tanner 1 (n=9). We compared parameters of the two groups at the first visit.



RESULTS

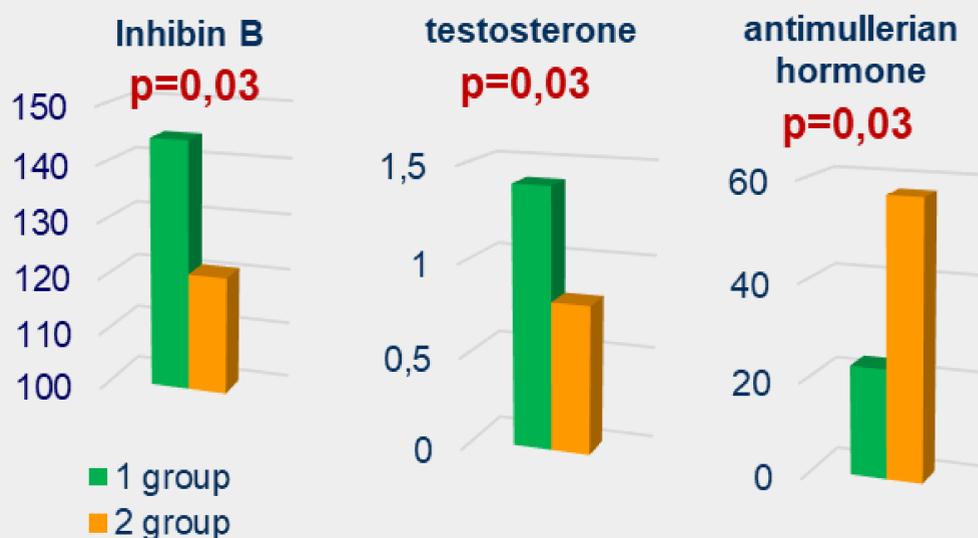
At the first visit all patients had the same age (14,6±0,9 vs 14,5±0,7 years old, p=0,8), height (Me Ht-SDS -2,2 vs -1,7, p=0,1), weight (Me BMI-SDS -0,03 vs 0,07, p=0,3), bone age (Me SDS -3 vs -2,5, p=0,3).



At the first visit boys with 1 group had testicular volumes much more than boys 2 group (Me 2,3 vs 1,4 cm³, p=0,001).

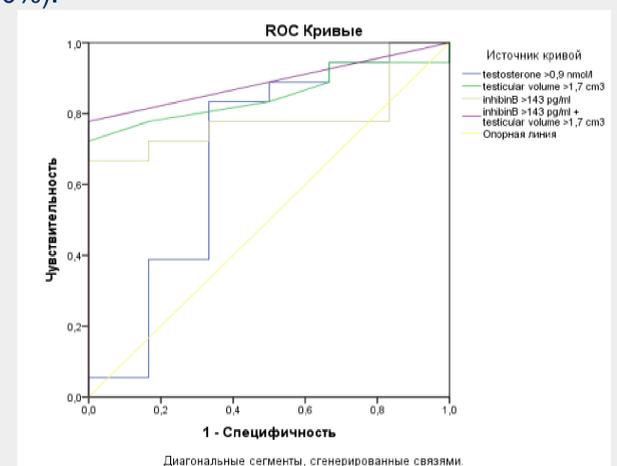


In boys with 1 group at the first visit testosterone (Me 1,4 vs 0,8 nmol/l, p=0,03), inhibinB (Me 144,3 vs 120,9, p=0,03 pg/ml) were significantly higher and antimullerian hormone (Me 22,8 vs 57,3 ng/ml, p=0,03) was significantly lower than in boys with 2 group.



The most informative predictors of start pubertal in boys with CDP during the first year were: testicular volume >1,7 cm³ (sensitivity 70,4%, specificity 100%), inhibinB >143 pg/ml (sensitivity 57%, specificity 100%), testosterone >0,9 nmol/l (sensitivity 81%, specificity 71,4%).

But the combination of inhibinB >143 pg/ml with testicular volume >1,7 cm³ increased diagnostic value (sensitivity 85%, specificity 100%).



CONCLUSIONS

The combination of inhibinB >143 pg/ml with testicular volume >1,7 cm³ had the best sensitivity of 85% and specificity of 100% in predicting the start puberty during the first year in boys with constitutional delay of puberty.

CONTACTS

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