The change in growth's velocity in patients with premature puberty receiving treatment with analogues of lyuliberin

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

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

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

[2]CHILDREN ENDOCRYNOLOGY CENTER. Saint-Petersburg, Russia

Suppression of hypothalamic-pituitary-gonadal system activity by luliberin analogues in premature sexual development of the central genesis is accompanied by a decrease in growth's velocity, sexual development and progression of bone age.

Aim of our scientific work:

Study of the effectiveness of gonadotropin-releasing hormone agonist therapy, their influence on the physical development.

Methods:

66 patients were treated by triptorelin. Idiopathic premature sexual development was identified in 40 children, hypothalamic hamartoma - 3, glial tumor - 1, organic central nervous system lesion – 15, congenital adrenal hyperplasia – 7.

Results:

The use of triptorelin once daily for 28 days intramuscularly at a dose of 3.75 mg led to a significant decrease in the growth's rate. The growth rate at the 1st year of therapy with analogues of lyuliberin averaged 6.0±1,7 cm/year, which was 1.8 times lower than the growth rate before treatment. In the second year of therapy, the growth rate decreased to 4.5±0,9 cm/year, and after 2 years of treatment, it was 4.3±1,2 cm/year, which is 2.5 times lower than before the start of therapy.

Conclusions:

Treatment with analogues of lyuliberin adequately suppresses the activation of the hypothalamic-pituitary-gonadal system, which is accompanied by a decrease in the rate of growth, sexual development and progression of bone age. This leads to an increase in the final growth about 10 cm, compared with untreated patients.

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Olga Berseneva

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