PHYSICAL DEVELOPMENT OF CHILDREN AND ADOLESCENTS WITH CEREBRAL PALSY

Leonid Klimov¹, Svetlana Dolbnya¹, Lyudmila Garbuz², Irina Zakharova³, Viktoriya Kuryaninova¹, Marina Stoyan¹

¹ Stavropol State Medical University, Stavropol, Russia

³ Russian Medical Academy of Continuing Postgraduate Education, Moscow, Russia

² Stavropol Regional Clinical Perinatal Center №1, Department of Pediatrics, Stavropol, Russia

Background and Aims

Assess the level of physical development of children and adolescents with cerebral palsy (CP), depending on form.

Material and Methods

102 patients aged from 7 months to 17 years for Cerebral Palsy were studied.

Their physical development was assessed with the help of the WHO Anthro/ WHO AnthroPlus programs.

We evaluated the Z-score of height and body mass index with regard for age and sex.

The assessment was carried out in accordance with the WHO standards:

- Overweight BMI for-age > +1SD,
- Obesity BMI for-age > +2SD,
- Thinness BMI for-age < -2SD,
- Severe thinness BMI for-age < -3SD,
- Stunting Height-for-age < -2SD

Figure 1. Structure of CP Forms

We used the Surveillance of CP in Europe classification. 16(15.7%) patients had unilateral spastic CP, 68(66.7%) bilateral spastic, 4(3.9%) dyskinetic, 14(13.7%) ataxic

Results

Figure 2. Comparative Analysis of Z-score of Height in Patients with Various CP Forms

Thinness (<-2SD) was found in 20(19.6%) children with CP, out of whom 13(12.7%) had demonstrated gross delay in physical development (<-3SD). 9(8.8%) children were found to be overweight, 6(5.9%) children were found to be obese.

Thinness (<-2SD) is a little more often demonstrated in bilateral spastic CP patients, while overweight is more often present in patients with unilateral spastic CP and ataxic CP.

Figure 3. Z-score Height-for-age in Patients with Various CP Forms

Growth delay was found in 12 (11.8%) patients including 2 (12.5%) patients with unilateral spastic CP, 7 (10.3%) patients with bilateral spastic CP, 1 (7.1%) patient with ataxic form, 2 (50.0%) patients with dyskinetic CP (p<0.05 in comparison with other CP forms).

Conclusions

- Every fifth child or adolescent with CP suffers from body mass insufficiency, 5–8% of CP patients are overweight and obese.
- Thinness is more often found in patients with bilateral spastic CP, while growth delays are more often observed in patients with dyskinetic CP.

Conflict of interest: there is no conflict

For correspondence: klimov_leo@mail.ru

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EAPS8-0964