The structure of genetically determined types of short stature in Uzbekistan according to retrospective analysis

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Background: Stunting in children is a heterogeneous state. Many endocrine, somatic, genetic and chromosomal diseases are accompanied by stunting. It can adversely affect indicators of the final height of the child; therefore timely diagnostics and treatment of stunting is very important.

Objective and hypotheses: To carry out a retrospective analysis of case histories of children and adolescents with genetically determined types of short stature who admitted to a pediatric department of a clinic of Research Institute of Endocrinology during 2003-2013.

Method: An analysis of case histories of children and adolescents with stunting and disorders of sexual development from 3 to 17 years old who undertook inpatient treatment in the pediatric department of RI Endocrinology during 2003-2013 is carried out.

Results: During 2003-2013, 642 children and adolescents with short stature and disorders of sexual development (236 boys or 36.8% and 406 girls or 63.2%) were hospitalised and examined; of them there were 197 children at the age of 3-11 years (30%) and 455 adolescents aged 12-17 years (70%). Mean age of patients at diagnostics makes 12.7±3.9 yrs. The following structure of genetically determined types of short stature is found: TS - 57.1% (average age 13.8±3.5 yrs); with multiple deficiency of adenohypophysis hormones (MDAH) – 23%; the ratio between boys and girls made 1:5:1; primordial dwarfism in 5.2%; hypochondroplasia in 4.6%; Noonan syndrome in 3.2%; Sekel syndrome in 2.4%, Rassel-Silver syndrome in 2.1%; Prader-Willi syndrome in 1.5%; Laron syndrome in 0.9%.

Conclusion: Results of the retrospective analysis show: In Uzbekistan the greatest percent of children and adolescents with genetically determined types of short stature is made by patients about TS and MDAH, in comparison with other genetic variants of short stature.