Turner Syndrome and Autoimmune Thyroid Disease: peculiarities of evolution in 93 Turner Syndrome patients
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Introduction: Turner Syndrome (TS) is a relatively common chromosomopathy and according to epidemiological studies the prevalence of Autoimmune Thyroiditis (AIT) in TS fluctuates from 10% to 21% versus 1.3% in the general population.

Objective: - to retrospectively evaluate thyroid autoimmune disorders and thyroid function in a group of 93 TS patients
- to compare the prevalence of AIT and thyroid dysfunction in subgroups of TS according to karyotype

Method: 93 girls diagnosed with TS in the Pediatric Endocrinology Department of the C. I. Parhon National Institute of Endocrinology were evaluated every 6 months: TSH, FT4 and ATPO, ATGL where measured. The follow-up period: 6 months - 6 years

Patterns of thyroid function where classified according to TSH and FT4 values into:
1. euthyroidism: TSH, FT4 into the normal limits;
2. subclinical hypothyroidism (SH): normal FT4 and high TSH;
3. frank hypothyroidism: high TSH together with low FT4

Results:

Median age at AIT diagnosis according to karyotype:

Thyroid function in AIT TS patients with AIT

Conclusions: We confirm the increased prevalence of AIT (28.7%) and hypothyroidism (67%) in our 93 patients with TS. In our TS group the prevalence on AIT was higher in X abnormalities karyotype and was lower in 45X karyotype compared to other karyotypes. In our TS group with AIT median age at hypothyroidism diagnosis was significantly lower (p=0.01) in X chromosome abnormalities compared with other karyotypes. The younger TAI hypothyroid patient was 5.9 years and belonged to karyotype 2 subgroup.

Our results support the importance of close monitoring of TS patients for autoimmune thyroid diseases and thyroid dysfunction.