

ANTI-NA/I SYMPORTER ANTIBODIES AND OTHER ANTITHYROID ANTIBODIES IN CHILDREN WITH TURNER'S SYNDROME

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Antibodies against the Na/I symporter (anti-NIS ab) have been reported in some adult patients with autoimmune thyroid diseases (AITD). Their role in autoimmune process is not elucidated yet. As the easily available for immune system thyroid antigen NIS can play a role in the initial stage of AITD. The young patients with Turner's syndrome with a high risk of autoimmune thyroid disease development seems to be a valuable group for the investigation of the early autoimmune process. The aim of the study was to investigate the presence of anti-NIS ab and its potential clinical significance in children with Turner's syndrome. Material and methods: 54 girls with Turner's syndrome were examined (the mean age 11.9±2.46 years), and 23 healthy age matched girls with normal thyroid function, free of autoimmune diseases. Anti-NIS antibodies were measured by the in-house ELISA method and the Western-blot technique. Sera considered as positive for anti-NIS ab were used for the iodide uptake inhibition bioassay using COS7 cells stably transfected with hNIS. In all patients the thyroid function, antithyroid antibodies (anti-TPO ab, anti-Tg ab) presence and a thyroid ultrasonography and hormonal function were evaluated. Results: In 20% of patients a subclinical hypothyroidism was diagnosed and 70,4% had antithyroid antibodies (anti-TPO- 64,8% and Anti-Tg- 24%). Anti-NIS ab were present in 14,8% girls with Turner's syndrome, and in none of the control group. Their presence were not related to anti-TPO or anti-Tg autoantibodies levels or patients age. A positive correlation between the anti-NIS ab presence and the hypothyroidism was found ($p<0.04$). Anti-NIS ab-positive sera did not suppress iodine uptake in bioassay using COS7-hNIS. Conclusions: In our material the anti-NIS antibodies were present in 14,8% of young patients with Turner's syndrome, and they were related to the presence of hypothyroidism.