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TITLE

THE INFLUENCE OF HORMONAL REPLACEMENT AND GROWTH HORMONE TREATMENT ON THE LIPIDS IN TURNER SYNDROME

AUTHOR/S

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ABSTRACT

AIM:

Women with Turner syndrome (TS) have a risk of developing cardiovascular diseases. We assessed the lipid and carbohydrate metabolism in TS-women in the context of current hormone replacement therapy (HRT) and growth hormone (GH) treatment during childhood.

METHODS:

The information were collected from medical documentation and anamnesis of 41 TS-women (25.9 ± 6.7 yr) between 2000 and 2010. The patients underwent a pituitary-gonadal axis assessment together with measurements of total cholesterol (TC), high- (HDL) and low- (LDL) density lipoproteins, triglycerides (TG), and glucose levels.

RESULTS:

Only 46% of women were using HRT. No differences were found in the levels of the lipid components and glucose in women who were undergoing HRT compared to those without it. Compared to TS-women without (n = 23), prior GH treatment in 34 TS-women positively influenced the lipid parameters: TC 5.1 ± 0.8 versus 4.5 ± 0.8 mmol/l ($p = 0.03$), HDL 1.6 ± 0.06 versus 1.5 ± 0.3 mmol/l ($p > 0.05$), LDL 3.2 ± 0.8 versus 2.8 ± 0.6 mmol/l ($p = 0.03$), and TG 1.2 ± 0.6 versus 0.8 ± 0.4 g/l ($p = 0.009$), respectively.

CONCLUSIONS:

HRT does not affect lipid metabolism in TS-women. The use of GH in TS-children favorably influences their lipid profile in adulthood.

INSTITUTE

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