



## HYPERANDROGENEMIA AND LIPID PROFILE

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**Context:** Hyperandrogenemia and lipid metabolism were shown to be related intimately. Effects of various androgens on lipid profile and impact on metabolic disturbances are not specified.

**Objective:** To determine the impact of dehydroepiandrosterone- sulfate and free testosterone on lipid metabolism.

**Methods:** 86 women aged under 30 years, with symptoms of hyperandrogenism were involved in the observational prospective study. According to the peculiarities of androgens secretion, patients were divided into three groups: I gr-hypersecretion of DHEA-S, II gr-hypersecretion of FT, III gr-hypersecretion of both DHEA-S and FT. Same aged 14 healthy volunteers served as a control. Clinical, hormonal parameters, lipid profile were investigated. The results were analysed by SPSS 21.

**Results:** In patients with high concentration of DHEA-S, levels of TC, TG, LDC, VLDC were decreased compared to control; BMI-  $23,7 \pm 0,01$ , W/H-  $0,7 \pm 0,01$ . In patients with high concentration of FT, levels of TC, LDC, atherogenic index were increased compared to control; BMI-  $33,7 \pm 0,33$ , W/H-  $0,83 \pm 0,01$ . In patients with hypersecretion of both-DHEA-S and FT, there were not statistically significant differences in terms of all lipid parameters; BMI-  $31,4 \pm 1,27$ , W/H-  $0,82 \pm 0,01$ .

**Conclusions:** DHEA-S, androgen of adrenal origin, has antiatherogenic effect, influences positively on lipid profile. FT has atherogenic effect, influences negatively on lipid profile and clinically manifested by visceral obesity. Atherogenic impact of FT are balanced by antiatherogenic impact of DHEA-S in cases of hypersecretion of both androgens. It can be supposed, that in young women, due to physiological peculiarities of DHEA-S secretion, which reach their peak at 19-30 years, possibility of development of metabolic disturbances is low.

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