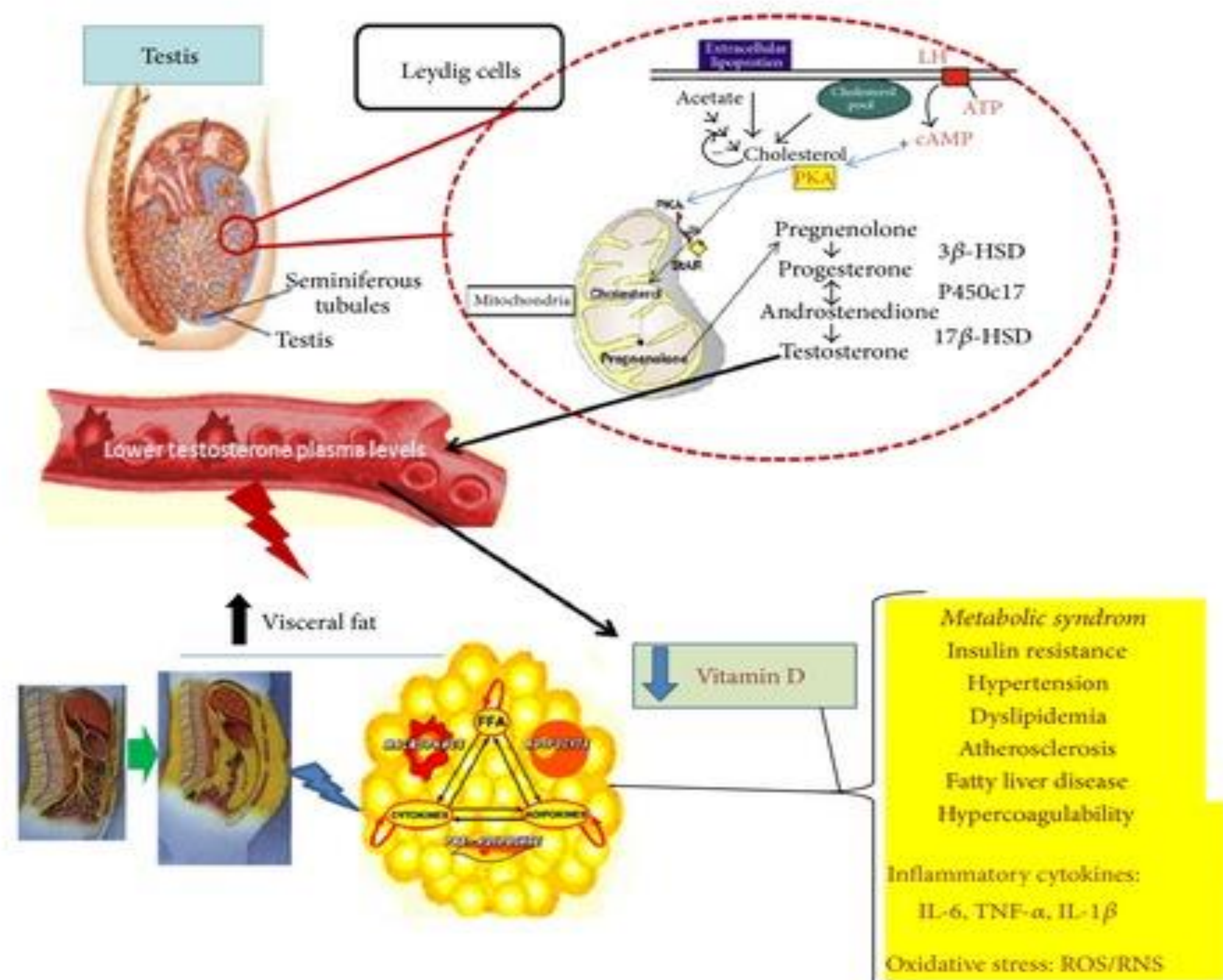


CHARACTERISTICS OF BLOOD LIPIDS IN BOYS WITH HYPOANDROGENIA

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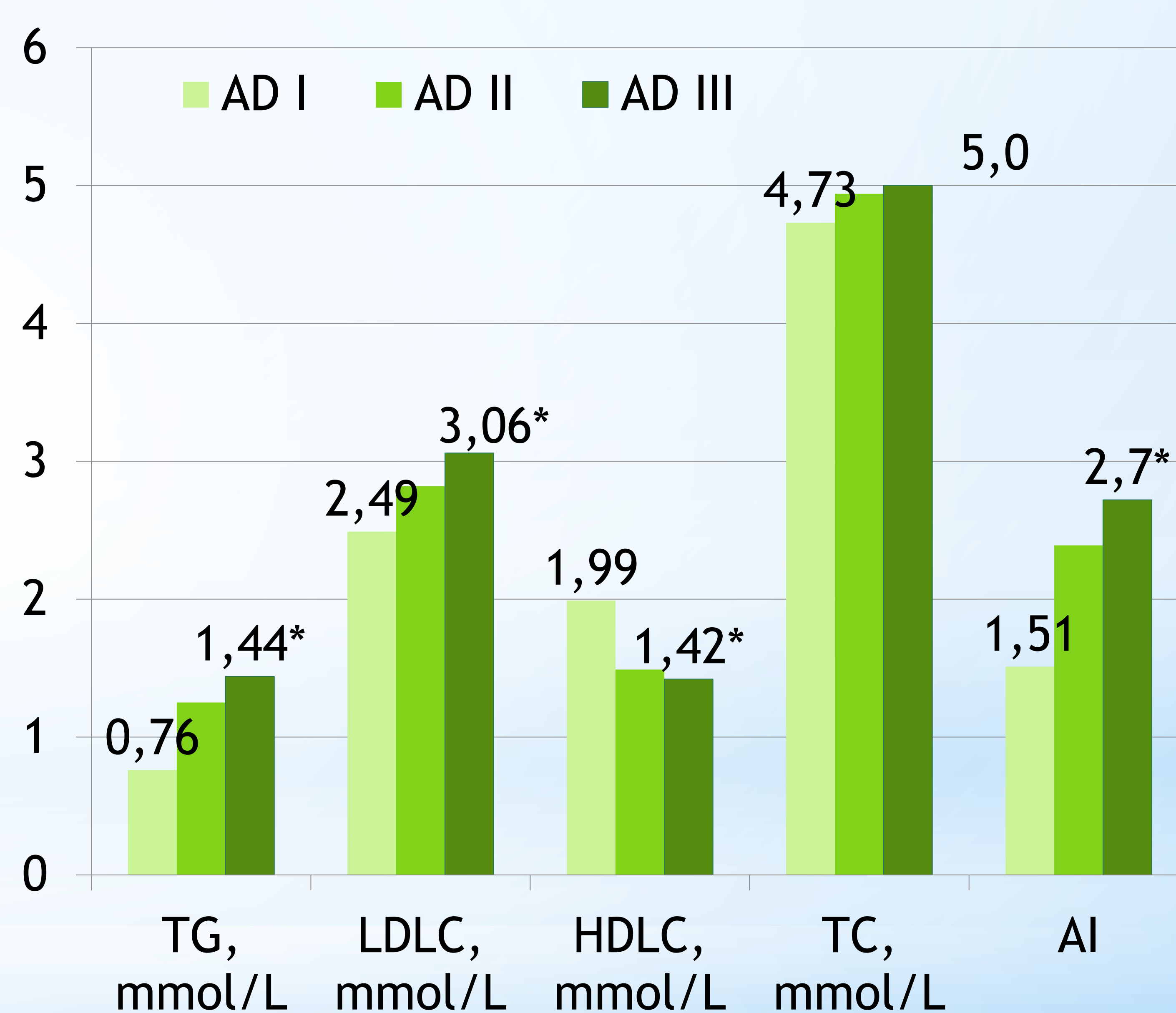


Discussed in literature is primarily the impact of late-onset hypogonadism in men as a factor of development of endothelial dysfunction, insulin resistance and systemic inflammation, while the pathogenic role of hypogonadism in development of metabolic disorders in male individuals during puberty currently remains undetermined.

Aim of research – to determine characteristics of lipid profile in adolescent boys with hypogonadism.

Materials and methods. There were 25 boys under observation, aged 14-17 years, with signs of androgen deficiency (AD), divided into three groups according to degree of AD (I, II, III). Assessment of puberty stage was performed by Tanner and examination of blood lipids was conducted using kits produced by «CormayMulti» company (Poland), with identification of lipid fractions (triglycerides (TG), total cholesterol (TC), low-density (LDLC) and high-density lipoprotein cholesterol (HDLC)) and subsequent calculation of atherogenic index (AI).

Research results. Analysis of lipid profile indicators in adolescent boys with hypogonadism, depending on degree of delay in sexual development, has shown that there are no reliable discrepancies in TC level. We have identified an increase in TG level during the intensification of AD: from 0.76 ± 0.15 mmol/L with I degree to 1.25 ± 0.18 mmol/L with II degree and 1.44 ± 0.19 mmol/L with III degree, $p < 0.05$. HDLC level, on the contrary, was higher with I degree of AD (1.99 ± 0.15 mmol/L) than with II (1.49 ± 0.16 mmol/L) and III degrees of AD (1.42 ± 0.11 mmol/L), $p < 0.05$.



Such shifts of lipid indicators have led to respective growth of AI with increase of AD degree: 1.51 ± 0.31 units with I degree, 2.39 ± 0.40 units with II degree and 2.70 ± 0.36 units with III degree of AD ($p < 0.05$).

Conclusion. Therefore, analysis of lipid profile indicators in adolescent boys with hypogonadism has shown lipid profile worsening during intensification of AD, due to increase of proatherogenic lipid fractions and decrease of antiatherogenic ones, which may be the evidence to reliable impact of androgen deficiency on early development of atherosclerosis in adolescent boys in the course of puberty.

