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ROLE OF TESTOSTERONE CONCENTRATION IN MALE PATIENTS WITH NAFLD

Adela ȚURCANU, Iu. ARIAN, Victoria GHENCIU, I. DUMBRAVEANU

Laboratory of Andrology, Functional Urology and Sexual Medicine, *Nicolae Testemitanu* State University of Medicine and Pharmacy of the Republic of Moldova

ABSTRACT

Introduction. Sex steroids have a direct impact on hepatic and systemic metabolism, thus implicating the pathobiology of NAFLD. The association between serum testosterone concentrations and NAFLD in men is one of the dysfunctions that interests specialists, also having an impact on the patient's quality of life. We investigated the relationship between total testosterone and inflammatory and fibrotic progression NAFLD. **Material and methods.** In this cross-sectional study, 35 men with NAFLD were recruited. Serum testosterone concentrations were measured by immuno-chemiluminescence. In order to further identify grade of steatosis and liver fibrosis in patients with NAFLD we used ultrasound and FibroScan with CAP score. **Results.** Average age of patients - 51.2 years. We found negative correlations between testosterone levels and inflammation status. Thus, we obtained the negative correlations between T and ALT ($p < 0.1$) and hypertriglyceridemia ($p < 0.05$). Testosterone level was negatively associated with F4 fibrosis grade ($p = 0.01$) but did not correlate with F1-F3. At the same time, an insignificant positive correlation was observed between the level of testosterone with the degree of steatosis and with waist circumference ($p > 0.5$). **Conclusion.** Our results indicate that in male patients with NAFLD, testosterone may play a role in inflammatory and fibrotic progression of NAFLD. And, understanding this change may help clinicians personalize treatment strategy for male NAFLD patients.