

DIAGNOSTIC FEATURES OF IDIOPATHIC MALE INFERTILITY

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ABSTRACT

Introduction. Male infertility has an incidence of about 6-10%. Despite the diagnostic progress, in about 30-40% the causes of infertility remain unknown or unrecognized and it is considered idiopathic. At the same time, the complex evaluation of the infertile man allows to diagnose some diseases or clinical situations with a potential negative effect on fertility. **The objectives** of the paper are to present some diagnostic peculiarities of male infertility in order to reduce the number of unknown causes of infertility. **Material and methods.** The study included 187 consecutive patients with idiopathic male infertility aged from 23 to 49 years, in whom the causes of the problem were not detected after the standard andrological evaluation. In all patients, the lipid profile (cholesterol, LDL, HDL, Triglyceride), 25-OH-VitD, blood sugar, thyroid hormones and oxidative stress in the sperm were additionally performed, and optionally sperm DNA fragmentation. **Results.** Increased level of cholesterol, triglycerides

or dyslipidemia was determined in 126 (67%) patients, respectively in 6 (17%) of 35 patients with a BMI <25, in 51 (70%) of 72 overweight patients (BMI 25-29.9) and in 69 (86%) of 80 obese patients (BMI >30). Blood sugar was increased in 22 (11.7%) patients, and hypovitaminosis D was diagnosed in 149 (79%) patients with infertility. At the same time, 4 (2%) patients were diagnosed with thyroid dysfunctions. Increased level of oxidative stress in sperm was detected in 119 (63%) patients. Out of 51 patients in whom spermal DNA fragmentation was performed, only 9 (17%) patients had a low degree of fragmentation (up to 15%). **Conclusions.** Idiopathic male infertility requires not only the use of standard diagnostic techniques but also additional examinations. Lipid profile, blood sugar, oxidative stress in sperm and sperm DNA fragmentation are important parameters in the evaluation of idiopathic infertility. At this moment, we cannot say for sure that the detected metabolic disorders are the cause of infertility, but they can serve as a guiding indicator in further assessment and treatment.