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СМІЛИВІСТЬ 

Obstetrics and Gynecology



of respondents. In 50% of infected people, lesions of the mucous membranes, condylomas and warts are observed. 72% know about the existence of the HPV vaccine, only 4% have been vaccinated and 46% plan to be vaccinated.

Conclusions. After analyzing the survey data, it can be concluded that the majority of KhNMU students are informed about HPV and are aware of the consequences of infection. Educators know about various subtypes of the virus and the high oncogenicity of some of them. It should be noted that most young people know about the HPV vaccine, but are not vaccinated. Since it is desirable to be vaccinated before the beginning of sexual life, we consider it necessary to carry information to the masses about the existence of the vaccine, its advantages, especially among women, because it can reduce the percentage of the risk of cervical cancer in the future.

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**OBESITY AND DIABETES ARE RISK FACTORS FOR FEMALE
REPRODUCTIVE FUNCTION**

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Relevance: According to scientific researches, risk of female reproductive system disorders, such as infertility, pregnancy pathology, abnormal uterine bleeding is increased in obesity patient. However, overweight and tissue insulin resistance are changeable risk factors. So elimination of following factors can relieve course of gynecological disorders.

Subject of this research: to find connection between following factors and risk of the reproductive system disorders at the pathophysiological level.

Materials: meta-analysis of scientific literature and publications of Scopus and PubMed published until November 2022 on this topic was performed.

Results: Overweight is associated with increasing of level unsaturated fatty acids, glycerol, proinflammatory markers and cytokines and other substances that lead to tissue insulin resistance. Consequences of these metabolic disorders can impact on fertility, especially on ovarian dysfunction by interrupting follicular cells and oocytes,



also indirectly on the upper level of regulation(hypothalamus and pituitary gland), which leads to pathology of oogenesis. Defect of glucose metabolism by various types of cells is a one of the reasons of obesity. Accordingly, such disorders can cause decrease of glucose in the cytoplasm of granulosa cells, which impairs ovulatory function. After all, absorption of glucose and glycolysis take place in the energy supply of oocyte development. Although pyruvic acid is metabolized in primary oocytes, somatic component of follicles needs glucose for regulation. The somatic microenvironment of the oocyte is necessary for its maturation.

Leptin like a hormone, which is synthesized in fat cells, and insulin are associated obesity and preeclampsia. Level of leptin is elevated in overweight women, as well as in pregnancy hypertension. Insulin tissue resistance, which caused by obesity, raise risk and severity of such condition, because of intervention on metabolic pathways of steroid hormones.

Tissue resistance to insulin and type II diabetes are associated with obesity and accompling by amplification the level of reactive oxygen species and pathologies caused by it. At the ovarian level this increase impact on the processes of development of the follicle, producing steroid hormones, degradation of luteum corpus, fully grown oocytes period, due to the fact that inflammation and oxidative cells stress are effects of excessive accumulation of reactive oxygen species (ROS). Accordingly, it is result to find a connection between level of ROS in the microenvironment of follicles and a recession of the ovarian function.

Conclusions: Diabetes and obesity as metabolic diseases can be the reason of ovarian pathology, acting on fertility by impact on ovarian somatic microenvironment and indirectly on hormone production. So one of the aim to decrease level of gynecological diseases is to treat obesity and made level of overweight lower.