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On the issue of polycystic ovary syndrome in patients in the region of chronic iodine deficiency

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Abstract

Currently, there is information about the relationship between polycystic ovary syndrome (PCOS) and thyroid pathology [1, 2].

In the development of PCOS, various extragenital diseases play an important role, and in the region of chronic iodine deficiency – thyroid pathology [2,3].

In this regard, it remains urgent to further study the combination of ovarian hyperandrogenism with thyroid pathology, which leads to deterioration of reproductive health and reduced fertility. A comprehensive description of this problem will help to fully study the pathogenesis of PCOS in modern conditions [2, 4].

Key words: polycystic ovary syndrome, hypothyroidism, iodine deficiency, history.

The aim is to assess the clinical and anamnestic characteristics of women with PCOS and thyroid dysfunction living in the region of chronic iodine deficiency.

Material and Methods. The results of the examination of 100 patients with PCOS and 20 healthy women of the control group were analyzed. Patients in the study were selected by open cohort method as they were directly treated. The first group included 60 patients with PCOS alone, the second group included 40 patients with PCOS and associated hypothyroidism. Diagnostic criteria in PCOS patients were: various disorders of menstrual function, endocrine infertility, the presence of hirsutism, clinical and/or biochemical manifestations of hyperandrogenism, echographic signs of polycystic ovaries. The severity of hirsutism was assessed on the Ferriman-Galvey scale.

Results. It was revealed that the majority of patients, both the main and control groups were women of active reproductive age from 18 to 34 years: 51 (85.0%) - in the first group, 33 (82.5%) – in the second and 18 (90.0%) - in the control group. In General, overweight and obesity were more common in patients with PCOS than in women in the control group ($p < 0.05$). The study of marital status showed that 75.0% ($n=15$) of women in the control group, 71.7% ($n=43$) of the first and 72.5% ($n=29$) of the second group were married. 5 (25.0%) women of the control group, 17 (28.3%) patients of the first and 11 (27.5%) patients of the second group were unmarried. When determining the place of residence, it was found that among all patients in the city of Sheki lived 34 (56.7%) women of the first group, 14 (35.0%) - the second and 7 (35.0%) – the control group. In the countryside– 26 (43,3%), 26 (65,0%) and 13 (65.0%) women, respectively.

Analysis of the causes of reproductive dysfunction showed that 38 (63.3%) patients of the first and 30 (75.0%) - the second group had infertility associated with endocrine factor. Primary infertility was indicated by 26 (43.3%) and 6 (15.0%) women, secondary infertility was indicated by 12 (20.0%) and 24 (60.0%) patients of the first and second observation groups, respectively. In the control group, there were no indications of a complicated gynecological history on the part of patients ($p < 0.05$). In the analysis of menstrual function, it was found that all women with PCOS menstrual cycle was not regular, there were violations of the type of oligomenorrhea ($p < 0.05$). In women of the control group, the menstrual cycle was regular, without disorders.

Thus, taking into account the regional factor of chronic iodine deficiency, it was established that patients with PCOS and thyroid pathology had certain clinical and anamnestic features. The combined course of PCOS with hypothyroidism is observed with the greatest

androgenization. In women with PCOS and thyroid pathology, hyperandrogenism and obesity are more marked. In turn, a burdened history of hypothyroidism causes various polycystic ovarian changes.

Conclusion. In women with PCOS with combined pathology, a burdened somatic and obstetric-gynecological history is characteristic.

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The value of some laboratory tests as predictors of outcomes of postoperative outcomes inflammatory reactions after cataract surgery

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Introduction. Implantation of intraocular lens (IOLs) is one of the most common operations in ophthalmology. Nevertheless, the problem of exudative-inflammatory reactions (EVR) of the eye that occur after cataract surgery is still relevant. From 3.1% to 13% patients developed this complication [1]. The period of t of EVR occurrence varies from several days to a month or more after surgery. The most severe manifestation is endophthalmitis, which can result in removal of the eye [4]. Prediction of the course and outcome of EVR is difficult, therefore, the search for laboratory markers that allow this to be done seems quite relevant. These tests include various markers of inflammation and endothelial dysfunction, as well as autoantibody levels [2,3,5].

The purpose of this study was to examine laboratory markers characteristic of various types of EVR in case of pseudophakia.

Material and methods. The study included 26 patients (10 men and 16 women) aged 17 to 75 years with an EVR that developed after phacoemulsification followed by implantation of an IOL. Laboratory studies were performed twice (on the 2-3 day after admission to the hospital and before discharge) and included determination of the level of antibodies to double-stranded DNA (anti-DNA), soluble adhesion molecules (sICAM-1, sVCAM-1) and neopterin. The follow-up period was 6 months. We used test systems from IBL (Austria), Orgentec (Germany), Bender MedSystems (Austria)

Results. EVR occurred in all patients at different times after surgery (from 2 to 14 days). The severity of EVR distribution was as follows: II degree - 12 patients (46,1%), III degree - 11 patients (42,3%), IV degree - 3 patients (11,3%).

The initial levels anti-DNA was increased in 14 (53,8%) patients, neopterin in 11 (42,3%), sICAM-1 in 3 (11,5%), sVCAM-1 in 5 (19,2%). No correlations with the timing of the development of EVR and its severity were revealed. There was a large scatter of individual indicators.

Monitoring of these indicators demonstrated, that normalization of anti-DNA levels occurred in 9 patients, while in 5 it significantly decreased compared to the initial level. At the same time, in 1 patient with severe postoperative endophthalmitis, this indicator increased even more. This fact may be due to increased apoptosis.