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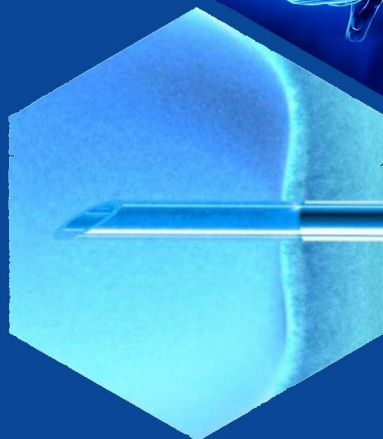
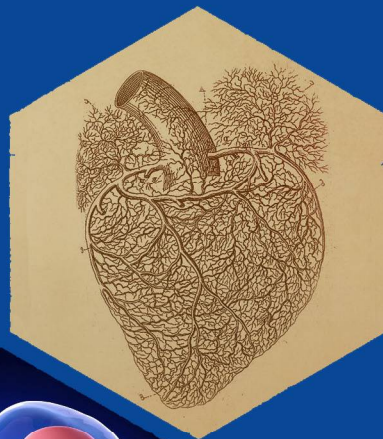
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ЎЗБЕК ТИББИЁТ ЖУРНАЛИ УЗБЕКСКИЙ МЕДИЦИНСКИЙ ЖУРНАЛ UZBEK MEDICAL JOURNAL


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CLINICAL COURSE OF PERIMENOPAUSAL PERIOD IN WOMEN WITH HYPERANDROGENISM SYNDROME

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ABSTRACT

Hyperandrogenism is a disorder of endocrine status caused by excess production of androgens. The syndrome is a consequence of increased androgen production both in the ovaries and adrenal glands. However, such a division is very arbitrary, as increased production of androgens in the adrenal glands may increase production in the ovaries and vice versa. Androgens in women are synthesized by ovaries, adrenal glands and peripheral tissues, which also participate in metabolism. The set of androgens in both women and men includes dehydroepiandrosterone-sulfate, dehydroepiandrosterone, androstenedione, testosterone and 5-alpha-dihydrotestosterone (5-alpha-DHT). Still, unlike men, women have a higher concentration of the first three hormones than the last two. Androgen synthesis in the adrenal glands in women is regulated by adrenocorticotrophic and in the ovaries by luteinizing hormone (LH) and some other intraglandular autocrine mechanisms. According to recent studies, in addition to the basic biological, previously commonly known effects of androgens, their new mechanisms of influence on the female body have been discovered.

Keywords: hyperandrogenism, hormones, ovaries, adrenal glands, reproductive disorders

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КЛИНИЧЕСКОЕ ТЕЧЕНИЕ ПЕРИМЕНОПАУЗАЛЬНОГО ПЕРИОДА У ЖЕНЩИН С СИНДРОМОМ ГИПЕРАНДРОГЕНИИ

АННОТАЦИЯ

Гиперандрогения – расстройство эндокринного статуса, обусловленное избыточной продукцией андрогенов. Данный синдром является следствием повышенной продукции андрогенов как в яичниках, так и в надпочечниках. Однако такое разделение носит весьма условный характер, так как повышенная продукция андрогенов в надпочечниках может

приводить к их повышенной продукции в яичниках и наоборот. Андрогены у женщин синтезируются яичниками, надпочечниками и периферическими тканями, которые также принимают активное участие в метаболизме. Набор андрогенов и у женщин, и у мужчин включает дегидроэпиандростерон-сульфат, дегидроэпиандростерон, андростендион, тестостерон и 5-альфа-дигидротестостерон (5-альфа-ДГТ), но в отличие от мужчин у женщин концентрация первых трех гормонов выше, чем двух последних. Синтез андрогенов в надпочечниках у женщин регулируется адренкортикотропным, а в яичниках – лютеинизирующим гормоном (ЛГ), а также некоторыми другими интрагландулярными аутопаракринными механизмами. Благодаря последним исследованиям помимо основных биологических, ранее общеизвестных эффектов андрогенов были открыты их новые механизмы влияния на организм женщины.

Ключевые слова: гиперандрогения, гормоны, яичники, надпочечники, репродуктивные нарушения

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GIPERANDROJENIK SINDROMLI AYOLLARDA PERIMENOPOZ DAVRINING KLINIK KURSI

ANNOTASIYA

Giperandrogenizm - androgenlarning ortiqcha ishlab chiqarilishi natijasida kelib chiqadigan endokrin holatning buzilishi. Bu sindrom tuxumdonlar va buyrak usti bezlarida androgen ishlab chiqarishning ko'payishining natijasidir. Ammo bu bo'linish juda o'zboshimchalik bilan amalga oshiriladi, chunki buyrak usti bezlarida androgen ishlab chiqarishning ko'payishi ularning tuxumdonlarda ko'payishiga olib kelishi mumkin va aksincha. Ayollarda androgenlar tuxumdonlar, buyrak usti bezlari va periferik to'qimalar tomonidan sintezlanadi, ular ham metabolizmda faol ishtirok etadi. Ayollarda ham, erkaklarda ham androgenlar to'plamiga dehidroepiandrosteron sulfat, dehidroepiandrosteron, androstenedion, testosteron va 5-alfa-dihidrottestosteron (5-alfa-DHT) kiradi, lekin erkaklardan farqli o'laroq, ayollarda oxirgi ikki gormonga qaraganda birinchi uchta gormonning konsentratsiyasi yuqori bo'ladi. Ayollarda buyrak usti bezlarida androgenlarning sintezi adrenokortikotrop, tuxumdonlarda esa - luteinizing gormoni (LH), shuningdek, boshqa ba'zi intraglandulyar avtoparakrin mexanizmlari bilan tartibga solinadi. So'nggi tadqiqotlar tufayli androgenlarning asosiy biologik, ilgari ma'lum bo'lgan ta'siridan tashqari, ularning ayol tanasiga ta'sir qilishning yangi mexanizmlari kashf qilindi.

Kalit so'zlar: giperandrogenizm, gormonlar, tuxumdonlar, buyrak usti bezlari, reproduktiv kasalliklar.

Introduction.

According to recent studies, receptors to androgens in women are located in the cells of almost all tissues, including the mammary glands, heart, blood vessels, gastrointestinal tract, lungs, brain and spinal cord, peripheral nerves, bladder, urethra, uterus, ovaries, vagina, skin, bone tissue, bone marrow, synovial membrane, muscle and fatty tissue. Based on this, it can be assumed that testosterone deficiency in women is not only a sexual disorder but also changes in mood accompanied by anxiety, irritability, depression, physical fatigue, loss of bone and muscle mass (osteoporosis and sarcopenia), obesity, changes in cognitive and cognitive functions (Alzheimer's disease), memory disorders, chronic pain, disorders of urination, including urinary incontinence, reproductive disorders, etc.

By now, there is a sufficient amount of data demonstrating the importance of androgens in women's lives. However, as practice shows, the diagnosis of hyperandrogenism is preferable in any situation accompanied by even a single clinical manifestation, such as acne, hirsutism, ovarian and menstrual cycle disorders. Perimenopause in women with hyperandrogenism syndrome has its peculiarities, knowledge of which will help to determine a rational management tactic.

Material and methods.

Fifty-eight perimenopausal women with clinical symptoms of hyperandrogenism were examined. To standardize the diagnostic approach, the clinical and anamnestic data were divided into the following groups: 1. reproductive group of symptoms - oligomenorrhea (less than 8 menstrual cycles a year), amenorrhea (absence of menstruation for over 6 months), abnormal uterine bleeding, reproductive disorders in the anamnesis. 2. Somatic group of symptoms - blood pressure (BP) >140/80 mm, waist circumference (Wa)>80 cm, waist circumference/hip circumference (WaC) - WaT/OB>0.8, body mass index (BMI)>26, black acanthosis. 3. Dermatological symptom group - acne, hirsutism - Ferriman-Gallwey score > 8, androgenic alopecia - baldness on the forehead and temporal areas, oily seborrhea - increased sebum production by androgens. 4. Virilization - clitoromegaly, bariphonia, androgenic alopecia, coarsening of the voice, hirsutism - Ferriman-Gallwey score > 15.

Findings. An overwhelming number of women (68.2%) went to a gynecologist because of various complaints of menstrual cycle disorders, weight gain, hirsutism, vegetative disorders. When evaluating complaints, anamnestic data, 11 (19%) women were not examined for SGA, because most of the complaints were of an isolated nature. Seven (12,1%) women complained of acne over the age of 20 years, eight (13,8%) women complained of excessive body hair growth and the Ferriman-Gallwey scale did not confirm hirsutism because the hormone number was less than 8, which is normal for hair growth. Two (3.4%) patients complained of baldness on the forehead in the temporal areas, which required further diagnostic search for HSA.

Somatic anamnesis in the majority of the women showed a history of liver, biliary tract and gastrointestinal diseases in 30 (51.7%). Chronic anemia was present in 19 (32.8%), and its combination with renal pathology in 12 (20.7%).

In 46 (79.3%) of those examined, the age of menarche was 12-14 years, established within 1-2 years. Regular menstruation occurred in 26 (44.8%) women. In 21 (36.2%), the periodicity of the cycle after the last menarche ranged from 17 to 48 days and the duration of menstruation was from 1 to 12 days with abundant menstrual discharge or bleeding after a prolonged delay of the next menstruation or without it. In 8(13.8%) and 3(5.2%) cases, Oligomenorrhea and amenorrhea occurred, respectively. Painful menstruation was observed in every sixth woman.

The majority of those examined - 38 (65.5%) had 2 or more pregnancies in the anamnesis. Seven (12.1%) had recurrent abortions, 19 (32.8%) had spontaneous miscarriages, and 12 (20.7%) had non-developing pregnancies. The duration of breastfeeding was more than one year in every second woman who gave birth. Seven (12.1%) women suffered from hypogalactia. Twenty-four (41.4%) IUDs were in the uterine cavity for 1 to 7 years. Twenty-one (36.2%) patients used OC for the treatment of reproductive dysfunction or contraception.

The generative function was impaired in many of them. 9 (15.5%) patients had primary infertility of 1 to 6 years duration. Eight (13.8%) had a history of secondary infertility. The majority had a history of chronic inflammatory diseases: uterus and appendages - 27 (46.6%), cervix and vagina - 47 (81.1%).

The gynecological examination diagnosed inflammation of the uterus and appendages in 31 (53.4%) subjects and cervicitis with endocervicitis in every third. Severe progressive hirsutism, baldness, bariphonia, masculinization phenotype, and clitoromegaly were not observed.

A reliable clinical sign of hyperandrogenism in PCOS is hirsutism. Hirsutism is characterized by the growth of stiff, long, usually pigmented hair mainly on the upper lip, chin, sideburn area, around the nipples, chest, lower abdomen, and crotch and on the inner surface of the thighs.

The D.Ferriman and J.Gallwey method of hirsute counting require neither financial, physical, nor time resources, and its informative value has been proven. Even more, the hirsute number is the

basis for the clinical diagnosis of SGA [1,2]. When using the standard scale, the total number of points should not exceed 8-12 points. More than 12 points - pathological hairiness.

Borderline hairiness was observed in 23(39,6%) women. And pathological hairiness on the face, lower and upper extremities usually appeared some time after detecting menstrual and reproductive dysfunction and gradually progressed in 18 (31%) patients. A study of excessive hairiness in androgen-dependent areas in 6(10.3%) women examined with presumed SGA showed that the hirsute number (14+ 3.4 - sum of scores across all body regions) increased due to a higher indifferent number (9+ 1.6 - sum of X - XI regions), compared to the hormonal number (difference between the hirsute number and indifferent number).

Patients in 34 (58.6%) cases were overweight or obese with predominant fat deposition in the abdominal region. Since SGA was most frequently associated with insulin resistance and the latter with abdominal obesity, it was reasonable to measure waist circumference (WC) in all women with suspected SGA and assess according to the IDF guidelines [2]. Measurement of OT showed that 12 (20.7%) exceeded 80 cm, and OT/OB>0.8 was noted in 5(8.6%), BMI>26 occurred in 23(39.7%) cases. Hip type obesity had 12.1% of patients, abdominal type - 13.8%. It is noteworthy that most overweight women associated it with hypodynamia, taking hormonal drugs and pregnancy.

Striae were pronounced in 3 (5.2%) patients, suggesting increased adrenal activity. Black acanthosis (brown, sometimes warty hyperpigmentation on the lateral and posterior surfaces of the neck, axillae, breasts, perineum, and vulva) was found in every sixth patient with perimenopausal menstrual dysfunction, which is a clinical sign of insulin resistance.

Elevated BP up to 140/80 was found in 16 (27.6%) of the examined women. All the above symptoms may turn out to be metabolic complications in the perimenopause period of undiagnosed and untreated SGA in the formative and active reproductive period.

Objectively, the presence of overweight/obesity and menstrual dysfunction, which gradually acquired the character of acyclic bleeding, came to the fore.

Conclusions. Thus, perimenopause women with clinical manifestations of hyperandrogenism have menstrual dysfunction with the prevalence of abnormal uterine bleeding against the background of excess weight.

Reference

1. Brown D.L., Henrichsen T.L., Clayton A.C., Hudson S.B., Coddngton C.C., Vella A. Ovarian stromal hyperthecosis: sonographic features and histologic associations. *J Ultrasound Med* 2009; 28: 587—593.
2. Buggs C., Rosenfield R.L. Polycystic ovary syndrome in adolescence. *Endocrinol Metabol Clin North Am* 2005; 34: 677—705.
3. Cordera F., Grant C., van Heerden J., Thompson G., Young W. Androgensecreting adrenal tumors. *Surgery* 2003; 134: 874—880.
4. Davison S.L., Bell R., Donath S., Montalto J.G., Davis S.R. Androgen levels in adult females: changes with age, menopause, and oophorectomy. *J Clin Endocrinol Metabol* 2005; 90: 3847—3853.
5. Diamanti-Kandarakis E., Lambrinoudaki I., Economou F. Androgens associated with advanced glycation end-products in postmenopausal women. *Menopause* 2010; 17: 1182—1187.
6. Dorgan J.F., Stanczyk F.Z., Kahle L.L., Brinton L.A. Prospective case-control study of premenopausal serum estradiol and testosterone levels and breast cancer risk. *Breast Cancer Res* 2011; 12: R98.
7. Kaltsas G.A., Isidori A.M., Kola B.P. The value of the low-dosedexamethasone suppression test in the differential diagnosis of hyperandrogenism in women. *J Clin Endocrinol Metabol* 2003; 88: 2634—2643.
8. Klotz R.K., Muller-Holzner E., Fessler S. Leydig-cell tumor of the ovary that responded to GnRH-analogue administration — case report and literature review. *Exp Clin Endocrinol Diabetol* 2010; 118: 291—297.

9. Krug E., Berga S.L. Postmenopausal hyperthecosis: functional dysregulation of androgenesis in the climacteric ovary. *Obstet Gynecol* 2002; 99: 893—897.
10. Martin K.A., Chang R.J., Ehrmann D.A., Ibanez L., Lobo R.A., Rosenfield R.L., Shapiro J., Montori V.N., Swiglo B.A. Evaluation and treatment of hirsutism in premenopausal women: an Endocrine Society Clinical Practice Guideline. *J Clin Endocrinol Metabol* 2008; 93: 1105—1120.
11. Nieman L.K. Approach to the patient with an adrenal incidentaloma. *J Clin Endocrinol Metabol* 2010; 95: 4106—4113.
12. Norman R.J.D., Legro R.S., Hickey T.E. Polycystic ovary syndrome. *Lancet* 2007; 370: 685—697.
13. Rittmaster R.S. Polycystic ovary syndrome, hyperthecosis and the menopause. *Clin Endocrinol (Oxford)* 1997; 46: 129—130.
14. Rosner W., Auchus R.J., Azziz R., Sluss P.M., Raff H. Position statement: utility, limitations, and pitfalls in measuring testosterone: an Endocrine Society position statement. *J Clin Endocrinol Metabol* 2007; 92: 405—413.
15. Rothman M.S., Wierman M.E. How should postmenopausal androgen excess be evaluated? *Clin Endocrinol* 2011; 75: 160—164.
16. Rotterdam ESHRE/ASRM-Sponsored PCOS consensus workshop group. Revised 2003 consensus on diagnostic criteria and long-term health risks related to polycystic ovary syndrome (PCOS). *Hum Reprod* 2004; 19: 41—47.
17. Shaw L.J., Bairey Merz C.N., Azziz R., Stanczyk F.Z., Sopko G., Braunstein G.D., Kelsey S.F., Kip K.E., Cooper-Dehoff R.H., Johnson B.D., Vaccarino V., Reis S.E. Postmenopausal women with a history of irregular menses and elevated androgen measurements at high risk for worsening cardiovascular event-free survival: results from the National Institutes of Health — National Heart, Lung, and Blood Institute sponsored Women’s Ischemia Syndrome Evaluation. *J Clin Endocrinol Metabol* 2008; 93: 1276—1284.
18. Speiser P.W., Azziz R., Baskin L.S., Ghizzoni L., Hensle T.W., Merke D.B. Congenital adrenal hyperplasia due to steroid 21-hydroxylase deficiency: an Endocrine Society clinical practice guideline. *J Clin Endocrinol Metabol* 2010; 95: 4133—4160.
19. Thompson G.B., Young W.F.Jr. Adrenal incidentaloma. *Curr Opin Oncol* 2003; 15: 84—90.
20. Waggoner W., Boots L.R., Azziz R. Total testosterone and DHEAS levels as predictors of androgen-secreting neoplasms: a populational study. *Gynecol Endocrinol* 1999; 13: 394—400.
21. Wild R.A., Carmina E., Diamanti-Kandarakis E., Dokras A., Escobar-Morreale H.F., Futterweit W., Lobo R., Norman R.J., Taibott E., Dumesic D.A. Assessment of cardiovascular risk and prevention of cardiovascular disease in women with the polycystic ovary syndrome: a consensus statement by the Androgen Excess and Polycystic Ovary Syndrome (AE-PCOS) Society. *J Clin Endocrinol Metabol* 2010; 95: 2038—2049.
22. Winters S.J., Talbott E., Guzick D.S., Zborowsky J., McHugh K.P. Serum testosterone levels decrease in middle age in women with the polycystic ovary syndrome. *Fertil Steril* 2000; 73: 724—729.
23. Yetkin D.O., Demirsoy E.T., Kadioglu P. Pure leydig cell tumour of the ovary in a postmenopausal patient with severe hyperandrogenism and erythrocytosis. *Gynecol Endocrinol* 2011; 27: 237—240.

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