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CAUSES, DIAGNOSIS AND TREATMENT OF INFERTILITY OF FEMALE INFERTILITY

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Abstract:

Many studies report an increase in the frequency of infertile marriages due to the influence of ecology and the environment on the generative function of humans, in particular, chemicalization, radiation, and harmful industrial production. The role of the modern city is emphasized as a complex factor in the growth of infertile marriages, especially in countries with rapid urbanization, due to an increase in the number of women in contact with occupational hazards. One of the most significant factors in the problem of infertility in women is the age of patients over 30 years old, which is a cumulative indicator of the "accumulation" of infertility risk factors.

Keywords: infertility, peloid therapy, female

INTRODUCTION. Infertility is an acute social and demographic problem of the world level – according to official statistics alone, 15% of married couples in the world (48.5 million A person) is incapable of conception. In half of these cases, the cause is various disorders of the female reproductive system. This problem concerns not only the women themselves and their spouses, it affects the general demographic situation and the economy. That is why the diagnosis and treatment of infertility is one of the priorities of modern medicine. And, admittedly, in this area, science in recent decades has really made, if not a breakthrough, then at least a significant step forward.

CAUSES OF FEMALE INFERTILITY

Infertility in reproductive medicine refers to the inability of a married couple to conceive a child within 12 months in the presence of regular sexual contact without the use of contraception. This pathology develops due to the following reasons:

Abnormal structure of the reproductive organs. Anatomical disorders of the female reproductive system can be congenital (due to genetic errors) or acquired as a result of injuries, severe childbirth, surgery, inflammatory and infectious diseases. They can interfere with the entry of sperm into the uterine cavity, the formation of an egg or its passage through the fallopian tubes.

Age-related changes. After the age of 35, the number of chromosomal errors in cells increases dramatically in women. Because of this, oocytes mature incorrectly and their fertility is seriously reduced, up to the complete impossibility of conception. In addition, the ovarian reserve decreases with age, since the supply of oocytes is limited, and they themselves are gradually consumed during normal ovulation.

Hormonal disorders. Reproductive function is regulated by a complex of hormones secreted by the ovaries and pituitary gland. With their abnormal concentration, ovulation, endometrial growth of the uterus and other processes important for successful conception may be disrupted. Hormonal disorders are caused by diseases (for example, tumors, cysts), taking medications, and contraceptives.

Violation of the immune response. Infertility often occurs due to the fact that the female body perceives male spermatozoa as a pathogenic microorganism. The antibodies they produce kill male germ cells, preventing them from fertilizing an egg. Immunological infertility occurs due to infections, an allergic reaction to sperm components, and inflammatory processes in the vagina.

Mental disorders, stress. Emotional disorders are often the cause of infertility in women. They can be caused by mental and/or physical trauma (for example, experienced sexual violence), stress at work, fear of pregnancy and childbirth, or a simple unwillingness to have a child.

DIAGNOSIS OF INFERTILITY

For effective treatment of infertility, the accuracy of determining the cause of the pathology is important. For this purpose, modern medicine uses a set of diagnostic measures, including:

Anamnesis collection – the doctor, in consultation with the patient, examines her medical record, learns about the diseases she has suffered and their treatment, previous pregnancies (if any) and attempts to conceive, menstrual cycle, methods of contraception used, etc.;

Ultrasound of the pelvic organs is performed transvaginally and allows you to assess the size, position, shape of the reproductive organs, identify neoplasms (tumors, cysts);

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Ultrasound of the mammary glands – with its help, the structure of breast tissues is examined, the presence of neoplasms (tumors, cysts) is revealed, in women over 35 years old, mmmography is performed instead of ultrasound;
Blood and urine tests – they are used to determine the level of sex hormones, the presence of infections (HIV, hepatitis B and C, syphilis), blood clotting indicators, oncological markers, biochemical composition;
Smears are taken from the vagina or cervix, examined for vaginal infections, abnormal cells, biochemical composition, antibodies.
Infertility diagnosis may also include hysteroscopy, magnetic resonance imaging and computed tomography, encephalography and other research methods. In parallel, the reproductive system of the sexual partner / spouse is examined, blood and urine tests are performed, and a spermogram is performed.
Infertility treatment methods
Modern medicine has an extensive arsenal of ways to treat infertility. They have different effectiveness and are used depending on the specific causes of pathology.
Medical treatment. It is aimed at restoring the normal hormonal background, as well as at eliminating various infectious, inflammatory, autoimmune and other pathologies that prevent conception. Drug therapy can be used as a primary or auxiliary method. Currently, the following drugs are used in the hormonal treatment of infertility:
Clomiphene citrate (clomid) – increases the production of follicle-stimulating hormones (FSH) in the body, thereby causing natural ovulation;
Urinary gonadotropins (LT and FSH) are extracted from purified female urine, used to control the ovulation process and endometrial development, as well as to accelerate growth and increase the number of follicles during IVF;
Recombinant gonadotropins are analogues of natural sex hormones produced by genetic engineering and used to accelerate follicle growth.
Antibiotics, antiviral and antifungal drugs are used to treat genital infections. Inflammatory processes in the genitals are eliminated with the help of corticosteroids (hormonal) or non-steroidal anti-inflammatory drugs. Antihistamines are used to treat immunological infertility.
Surgical intervention. It is mainly used to eliminate anatomical disorders and neoplasms in the genitals. Adhesions and scars in the vagina or fallopian tubes, polyps in the cervical canal, benign tumors (fibroids), abnormally overgrown endometrium (uterine mucosa) are surgically removed. Surgical treatment of infertility in Moscow in our clinic can be:
Invasive – carried out through abdominal wall incisions, characterized by an increased risk of complications;
Minimally invasive – performed through small punctures (laparoscopy) or natural holes, characterized by a reduced risk of complications.
Surgical techniques are also used to diagnose infertility. For example, with the help of a biopsy of the tissues of the cervical canal, a histological and cytological examination is carried out, which allows to identify benign and malignant changes in the mucous membrane. Using laparoscopy, the doctor can examine the structure of the fallopian tubes and appendages, examine the condition of the ovarian tissues, etc.
Gene therapy. The most modern infertility treatment is to correct genetic mutations that cause reproductive dysfunction. For this purpose, drugs based on nucleic acids and genetic engineering (genome editing) technologies are used. Due to the fact that this field of medicine has just begun to develop, gene therapy for infertility is still at the experimental stage.
Psychotherapy. If the inability to conceive a child is due to psychoemotional disorders, the patient undergoes a course of psychotherapy. It identifies the causes and events that cause fear of sexual contact, pregnancy and childbirth, and uses various methods of accepting and overcoming traumatic situations. To treat infertility, a doctor can combine psychotherapy with medication.

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