MODERN INTERPRETATION OF OPTIMIZATION OF FERTILITY IN PREGNANT WOMEN AFTER IN VITRO FERTILIZATION

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Аннотация: Экстракорпоральное оплодотворение (ЭКО) — это оплодотворение яйцеклеток, образовавшихся в организме женщины после созревания, с помощью специальных игл, с применением лекарственных препаратов, а также оплодотворение в лабораторных условиях сперматозоидами мужчины и помещение развивающегося эмбриона/эмбрионов в матку.

Ключевые слова: азооспермия, варикоцеле при мужском бесплодии, методы отбора сперматозоидов, что делать перед ЭКО, анализы, которые следует назначить парам, начинающим лечение ЭКО.

Annotatsiya: In vitro urug‘lantirish - bu ayol tanasida yetilgandan keyin maxsus ignalar yordamida, dorilar yordamida ishlab chiqarilgan tuxumlarni urug‘lantirish, shuningdek, laboratoriya sharoitida erkak spermasi bilan urug‘lantirish va rivojlanayotgan embrion/embrionlarni bachadonga joylashtirishdir.

Kalit so‘zlar: Azoospermiya, Erkaklar bepushtligida varikosel, Sperma tanlash usullari, EKU davolashdan oldin nima qilish kerak, EKU davolashni boshlagan juftliklardan so‘raladigan testlar,

Abstract: In vitro fertilization is the fertilization of eggs produced in the woman's body after maturation with the help of special needles, with the help of drugs, as well as fertilization in laboratory conditions with male sperm and placing the developing embryo/embryos in the uterus.

Keywords: Azoospermia, Varicocele in male infertility, Sperm selection methods, What to do before IVF treatment, Tests to be asked of couples starting IVF treatment,

Introduction

Who is suitable for the IVF procedure?

IVF is a treatment used for couples who are unable to have children for reasons related to women, men, or sometimes both. We can list the situations in which IVF treatment is used;

If uterine imaging shows uterine obstruction or if both tubes have been surgically removed

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For cases of azoospermia (absence of sperm in semen) or oligospermia (low sperm count) in men

If a woman's egg supply is reduced

If you have endometriosis (chocolate cyst). IVF procedure can also be done before chemotherapy/radiation therapy to preserve reproductive functions in cancer patients.

Why should you choose us?

Our IVF center offers services of experienced gynecologists, an experienced laboratory team closely following the developments in the field of

IVF, an embryology laboratory equipped with the latest technologies and a patient-oriented approach. We frequently update medical equipment and treatment protocols in line with global changes and perform IVF procedures with high success rates.

IVF treatment according to the agreement of social insurance companies

Social insurance covers the costs of up to three in vitro fertilization for insured persons who are married but do not have children from the current marriage, regardless of whether they have children from a previous marriage or not. Joint adoption of a child by a couple does not prevent in vitro fertilization.

IVF treatment may be covered by the social insurance policy, subject to the following conditions:

The hospital where the procedure is performed has an agreement/protocol with the organization

After the treatment, the medical board concluded that she could not have a child using traditional medical methods and could only have a child through assisted reproduction.

Female should be above 23 years and below 40 years

One of the spouses has had general health insurance for at least five years and has 900 days of general health insurance premium.

Documenting that there has been no response from other treatments within the last three years, except for women with premature ovarian failure (primary ovarian failure) and men with no sperm in their semen (azoospermia), also known as premature menopause.

If a woman starting IVF treatment is over 40 years old at the time of embryo transfer, treatment costs are not covered. At the same time, if the woman has a valid medical opinion before the age of 40 and the embryo transfer is carried out within 30 days from the date of reporting, medical services related to in vitro fertilization are covered by social insurance. covered by

Unexplained infertility is a state of infertility, the causes of which cannot be explained even after tests (spermograms, x-rays of the uterus, egg reserve tests) .

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In approximately 20-30% of couples diagnosed with infertility, the cause of infertility is not directly identified. Major causes of infertility, such as egg quality problems, fertilization problems, and problems with embryo development, can appear a bit later in the IVF treatment process.

In the first stages of treatment, ovulation therapy (ovulation induction) and vaccination (intrauterine insemination) may be recommended.

In vitro fertilization treatment should be initiated in older women (38 years and older) and in long married women who cannot conceive with first-line treatment.

What is endometriosis (chocolate cyst)? What should be treated?

Endometriosis (chocolate cyst) is a chronic disease that can occur in 1 in 10 women between the ages of 15 and 49. To date, it is not known exactly what causes endometriosis. From 25 to 50% of patients who come with complaints of infertility are diagnosed with endometriosis. Endometriosis occurs when the endometrium, which covers the inside of the uterus, is located outside the inner wall of the uterus. Endometriosis can occur in different parts of the body, such as the ovaries, fallopian tubes, abdomen, bladder, or intestines.

While some patients with endometriosis have no symptoms, others; symptoms such as severe menstrual pain, pain during intercourse, infertility, and constant pain in the groin regardless of the menstrual period may appear. Endometriosis can adversely affect fertility. Between 35 and 50 percent of women diagnosed with endometriosis are unable to conceive.

Endometriosis causes infertility in the following ways:

Due to the adhesions formed in the abdominal cavity due to endometriosis, due to the violation of the anatomical relationship between the tubes and the egg, the fallopian tubes are blocked and the egg released from the ovaries cannot be caught. Due to the formation of cysts in the ovaries, the ripening of eggs can be negatively affected. In addition, because of this, the number of eggs may decrease. Endometriosis affects not only the number of eggs, but also the quality of eggs.

An accurate diagnosis of endometriosis (chocolate cyst) is made only after laparoscopic examination of endometriosis foci, after which pieces of these foci are sent for pathological examination. However, today chocolate cysts and foci of endometriosis can be diagnosed with the help of vision and ultrasound. Endometriosis lesions can be removed laparoscopically, especially in patients with painful complaints that do not respond to medical treatment.

Treatment for infertility in patients with endometriosis depends on the patient's age, duration of infertility, presence of open fallopian tubes, and egg supply. In vitro fertilization treatment should be considered primarily in patients with reduced egg reserve, chocolate cysts in both ovaries, blocked or swollen

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fallopian tubes, and patients who have had previous surgery for endometriosis. In a situation where cancer is suspected or there are problems accessing the follicles during egg collection, the option of surgical intervention can be considered.

What is an isthmocele? Can it cause infertility?

Isthmocele (Caesarean scar defect) is defined as the formation of a blister-like space at the site of the cesarean section due to incomplete healing of the cesarean section. In this place, the walls of the uterus are thin, and the menstrual blood that needs to be removed from the body accumulates in this place. Due to the increase in the number of cesarean births in recent years, this condition is often seen in clinics. Isthmocele can occur in 20-80% of patients born by cesarean section, but not all patients perceive it as a cause of complaints.

The most frequent complaint is random bleeding after menstruation. In addition, there may be an increased risk of problems such as heavy menstrual bleeding, painful sensations during menstruation, and cesarean scar (ectopic pregnancy as a result of cesarean section). Some patients with isthmus also experience infertility. When the blood collected in the cavity in the form of a cyst at the cesarean section flows back into the uterus, an inflammatory formation occurs on the uterine wall, which prevents the attachment of the embryo.

On the other hand, it is believed that blood that is always present in the cervical canal can cause infertility by obstructing the passage of sperm. Isthmocele is often diagnosed using ultrasound. Treatment is planned depending on the patient's complaints, the thickness of healthy uterine walls and the size of the defect. Treatment can be performed using hysteroscopic or laparoscopic (closed surgery) methods.

Male infertility

Among couples who go to the hospital with infertility problems, about 40% are related to the man. For this reason, it is important for couples who want to have children to be examined together. The cause of male infertility can be congenital anomalies, previous infections and operations, varicocele (enlargement of the veins of the testicles), hereditary diseases and harmful environmental factors.

How is male infertility diagnosed?

After taking a medical history, the first step is a physical examination and semen analysis. In addition to examination data, an ultrasound examination can also be performed. During the physical examination, the size of the testicles and the seminal ducts are checked. It also checks for enlarged veins in the testicles, called varicoceles. Sperm analysis is the most important examination. If the spermogram is within normal limits, no other tests are needed. sperm analysis; provides information on sperm volume, sperm count, motility and sperm morphology. In addition to this analysis, hormonal and genetic evaluation may also

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be required. In the analysis of semen, low number of spermatozoa is called oligozoospermia, low motility of spermatozoa is called asthenozoospermia, abnormal morphology is called teratozoospermia, absence of spermatozoa in sperm is called azoospermia.

What are the treatments for infertility?

Drug treatment: Treatments aimed at hormonal regulation through vitamins, minerals and herbal preparations may be used in some patient groups.

Surgical treatment: Two special groups of patients require it: patients diagnosed with varicocele and patients with azoospermia. Varicocele is the most common disease that causes infertility. About 1 in 10 men have a varicocele that can be surgically repaired. Varicocele operation; It is performed to increasethe success and frequency of pregnancy in patients with unexplained infertility or planning to use assisted reproductive technologies in cases where sperm analysis reveals abnormalities. There are different ways to perform varicocele surgery. Recently, the microscopic technique has become more preferred due to its high success rate and low complication rate.

After the procedure, improvements are observed in the sperm tests of the patients. Patients with azoospermia, if there is an obstruction in the seminal ducts, can be treated by repairing these ducts. However, in most cases this is not possible. In such cases, sperm can be obtained by microscopic examination. Despite the absence of obstruction, if there is a hormonal deficiency in patients with azoospermia, sperm can be easily retrieved within 6 months with hormonal therapy. But, especially if the cause of azoospermia is genetic diseases, it is more difficult to obtain sperm microscopically.

Azoospermia

Azoospermia is the absence of sperm in the semen. Azoospermia, which occurs in one out of every hundred men, occurs in 10-15% of infertile men. Azoospermia can occur for various reasons, for example, a violation of sperm production in the testicle, blockage of the channels that allow sperm to exit the testicle, or insufficient secretion of hormones from the pituitary gland. The most common reason is related to the violation of sperm production in the testicles. We can say that these include (underdevelopment of the testicle - anarchy, undescended testicle, chromosomal disorders, trauma, surgical interventions, testicular tumor, testicular torsion (stopping blood flow by twisting the testicle around itself), inflammation of the testicle due to mumps , toxic substances (chemotherapy), exposure to radiation (radiotherapy), if it is determined that azoospermia is caused by obstruction, the obstruction in the channels for the release of sperm can be corrected surgically.

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People who are known to block the vas deferens experience sperm production; but it cannot be transferred out. In such patients, sperm can be obtained using needle aspiration techniques such as tesa and pesa. Pesa - the process of removing sperm from the epididymis using a needle. Tesa is the process of removing sperm from the testicles using a needle. The Tesa procedure is more commonly used in practice. The Tesa procedure can be used not only for obstructive azoospermia, but also in cases where there are spermatozoa in the semen, but testicular sperm is preferred.

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