

Male infertility and urogenital latent infection (UGSI)

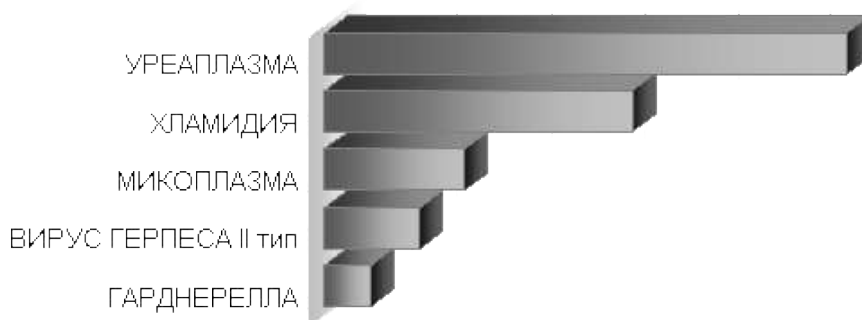
G.N. Khafizova, O. I. Eliseeva

(LLC "Eliseeva Methodological Center", Moscow, Russia)

Urogenital latent infections (UGSI) in men, sexually transmitted infections, can act in isolation or sequentially on various organs of the genitourinary system: the prostate gland, seminal vesicles, vas deferens, testes and their appendages. Among the infectious factors, urogenital ones are found: chlamydia, mycoplasma, ureaplasma, genital herpes virus type 2, gardnerella. Diseases are asymptomatic, asymptomatic, with manifest manifestations and are complicated by prostatitis, vesiculitis, epididymitis with impaired reproductive and copulatory functions, which is becoming a significant problem at the present time and is of a social nature.

The average age of patients who came to our Center with inflammatory diseases of the accessory gonads caused by UGSI was from 33 to 40 years old, that is, the youngest and most able-bodied.

The etiological factor of inflammation in the accessory gonads in 10 (56%) of the 18 patients examined by us was found to have ureaplasmas, incl. in 13 out of 18 people (72%) with asymptomatic disease. Chlamydia was found in 6 (33%) patients, including 5 (28%) asymptomatic patients. Mycoplasmas were detected in 15% of patients, herpesvirus type 2 - in 10.2%, gardnerella - in 5%, that is, ureaplasma infection clearly prevailed. In prostatitis, vesiculitis caused by UGSI, in 6 (33%) ureaplasma-mycoplasma infection prevailed.



Rice. one. The etiological factor of inflammation of the accessory gonads in men with UGSI.

The pathogenesis of urogenital mycoplasmas and ureaplasmas is complex. Penetrating through the mucous membranes of the urogenital organs, microorganisms are adsorbed on the membranes of epithelial cells and multiply, and at this stage the process can be suspended without causing any clinical manifestations. Microorganisms can attach to sperm cells, damage and utilize the acrosomal membrane of their head, as well as disrupt egg fertilization and lead to miscarriage in pregnant women.

We revealed in 4 patients infertility with prostatitis, vesiculitis, epididymitis, asymptomatic and caused by UGSI, taking into account the association of infections. So, three of them on ART were found to have chlamydia, ureaplasma, mycoplasma, in the 4th, in addition to ureaplasma and mycoplasma, - herpes simplex virus type II. The asymptomatic course of prostatitis, vesiculitis, epididymitis caused by UGSI is explained by us by the late referral of patients and late diagnosis, as well as the long-term connection of the microorganism with the host cell, impaired immuno-interferon indices of the mixed UGSI.

High contamination of the sperm of patients with infertility by microorganisms, their species diversity, their high adhesive activity, polyantibiotic resistance indicate a certain role of persistent microflora in the formation of pathospermia and impaired secretion of sex hormones.

The ejaculate is a mirror of the male reproductive system and consists of a portion of spermatozoa isolated from the testicle and a mixture of secretions from all accessory genital and urethral glands. A marriage is considered sterile if, with an active sex life without the use of contraceptives, pregnancy does not occur within one year. Male infertility accounts for 50%, of which 35% is spermatogenesis pathology.

The normal ejaculate volume ranges from 2 to 5 ml. The volume of ejaculate less than 1 ml is called hypospermia and indicates androgenic insufficiency, characteristic of the secretory form of male infertility. With azoospermia (absence of spermatozoa with preservation of spermatogenesis cells), due to testicular atrophy, the volume of ejaculate can be low, ranging from 0.5 to 1 ml. The volume of ejaculate more than 6 ml is called hyperspermia and characterizes the state of prolonged sexual abstinence.

With normozoospermia, the pH of the ejaculate is in the range from 7.0 to 8.0 and has an alkaline reaction, which ensures the mobility of the sperm and allows them to bypass the acidic environment of the vagina (pH 4.0-4.2), and reach the cervix, the pH of which is alkaline ... High pH (more than 8.0) characterizes hypospermia or azoospermia. Low pH (5.0) and the absence of fructose indicate that the alkaline secretion of the seminal vesicles does not enter the ejaculate and is manifested by agenesis of the vas deferens or blockage of the excretory ducts of both seminal vesicles. A shift in the pH of the ejaculate to the acidic side changes the electrical charge of the sperm from negative to positive and causes them to agglutinate.

The concentration of sperm in fertile (capable of fertilizing an egg) men should be more than 20 million / ml with mobility A, i.e. fast linear progressive movement, with sperm motility more than 50%.

Violation of spermatogenesis in the form of a decrease in sperm motility diagnosed at sick with prostatitis, vesiculitis, epididymitis conditioned UGSI, especially with a predominance of chlamydial-ureaplasma, mycoplasma-ureaplasma, and also in asymptomatic patients prostatitis. Decrease in sperm concentration, the rise in percent degenerative forms, bacteriospermia 10^4 - 10^5 CFU / ml prevails in inflammatory diseases of the accessory gonads caused by mixed UGSI and asymptomatic the course of prostatitis.

Summarizing the above, it should be noted that with prostatitis, vesiculitis, epididymitis caused by UGSI, leading to male infertility atypical urogenital hidden microorganisms are found: chlamydia, mycoplasma, ureaplasma, gardnerella, herpes simplex virus type II, not characteristic of the usual bacterial flora of the macroorganism and transmitted only sexually through sexual partners. Sometimes the above-mentioned urogenital infections are not detected by conventional laboratory examination methods and the method of autonomic resonance testing is a more acceptable diagnostic method in patients with UGSI.

As a result of the complex etiotropic, anti-infectious, pathogenetic treatment we carried out in 4 patients with prostatitis caused by UGSI, pregnancies took place in the patients' wives; three of them gave birth to healthy children, the fourth - at the moment, pregnancy is 28 weeks.

Medical history of one of the patients

Patient K.P., 40 years old. First marriage. Has been in a barren marriage for 3 years. V.N.'s wife, 30 years old. Second marriage. Anamnesis: 2 honey. abortion without complications in the first marriage. Was observed by a gynecologist - no pathology on the part of the female genital organs was revealed.

The patient complains only about the absence of pregnancy in his wife. Passed transrectal ultrasound examination (TRUS) of the prostate and spermogram at homeland (resident of Holland) (tab. one). The patient was offered IVF of his wife's eggs donor sperm.

Table 1

Name	Result	Norm
Volume	3.0 ml	2.0 ml
NS	7.0	7.0-8.0
Concentration	15 million / ml	20 million / ml
Sperm count Motility	35 million / ml	40 million / ml ejaculate
	25% mobile 75% motionless	50% with progressive mobility
Morphology	35% degenerative forms with a deformed head	14% with normal head and shape
Immunological test	The presence of agglutination more than 20%	20% of sperm with agglutination

On TRUS: the dimensions of the prostate are $3.8 \times 2.3 \times 4.1$ cm (the volume is 18.6 cm³), the right lobe is slightly larger than the left, its contours are even, clear, the capsule is of uniform thickness, the structure of the gland is diffusely heterogeneous. The seminal vesicles are not changed.

On ART revealed: electromagnetic load of the 4th stage; a high degree of tension of the immune system; catabolism 3 tbsp. on the prostate; bactericidal activity 3 tbsp. along the prostate, the vas deferens and the back of the male urethra. Frequencies of mycoplasma and ureaplasma in the genitourinary organs are tested.

The patient underwent complex therapy: body cleansing, frequency therapy, BRT and induction therapy. Continuation of resonance frequency therapy at home is recommended. After the third course of treatment, the patient's wife became pregnant.

Conclusions:

1. The ART method allows detecting UGSI without clinical examination of the patient.
2. Frequency therapy makes it possible to effectively carry out UGSI therapy.

Literature

1. Tiktinsky OL, Kalinina S.N. Diseases of the prostate gland. - SPb.: ID Peter, 2006.
2. Akunya K.B. Actual problems of infertility in marriage. - Yerevan: Snastan, 1978.
3. Kalinina S.N., Tiktinsky O.L., Mikhailechenko V.V. The role of diseases sexually transmitted infections in infertile marriages // Urology and Nephrology, 1997.
4. Duda VI.I., Duda V.I., Duda I.V. Gynecology. - Minsk, 2002.