

Diagnosis of urogenital infections in uro-andrology based on principles of evidence

G.P. Atyushev, V.A. Sharkova

(Vladivostok State Medical University, medical clinic "DV-Diagnostic", Vladivostok, Russia)

In recent decades, chronic persistent infectious diseases occupy, figuratively speaking, the dominant position in uroandrology. In this connection, it seems that medical science was not ready to effectively protect a person from most chronic infectious diseases and, first of all, if we take into account the growing process of chronicity and long-term persistence of the pathogen in the body, against the background of special "compromise" relationships between micro- and a macroorganism that has not yet been sufficiently studied by biomedical science.

More than 60 species of bacteria, protozoa, viruses, fungi are known that can lead to inflammatory diseases of the urogenital tract and be complicated by infertility and sexual disorders. According to domestic and foreign literature, today the greatest attention is paid to only a few infections: chlamydia, myco-ureaplasmosis, herpes simplex virus type 2 and cytomegalovirus. And this is not due to the fact that they are more pathogenic or more common than others. Rather, it is a historical event that has made these 5 objects the subject of the most attention.

All of these infections are characterized by:

- long-term persistence - carriage that acquire chronic in nature and can last for years;
- asymptomatic carriage;
- but the most surprising - the causative agents of these infections, with some with a reservation regarding chlamydia, they belong to the group of opportunistic microorganisms. Their pathogenic properties develop against the background immunodeficiency state of the body caused by a wide variety of reasons: stress, environmental factors, uncontrolled drug therapy, etc. A significant revival of interest in UGI began only after the appearance of new highly sensitive methods for identifying the pathogen - the so-called DNA-specific research methods, in particular, using polymerase chain reaction (PCR) and DNA hybridization. Now in many publications, the diagnosis of these infections is carried out by this method.

Basic diagnostic principles of urogenital chlamydia:

1. Chlamydiae are obligate pathogens. Their identification, regardless of the presence clinics is a health hazard.
2. Proof of chlamydia is only the identification of the pathogen (or its protein antigens, DNA) in the corresponding patient sample.
3. The most sensitive and specific detection methods chlamydia are: culture, PCR and DNA hybridization. Due to the low

specificity (less than 50%), the immunofluorescent indication method is of little use.

4. It is advisable to confirm a negative result by repeating research in 7-10 days, since the most sensitive method can give a false negative result with a probability of 15%.

5. It is also desirable to confirm a positive answer by repeating research.

6. Identification of specific immunoglobulins (G, M or A) can be used only as a confirmatory test or to predict the effectiveness of therapeutic therapy. The identification of specific IgA is of particular importance. Their presence indicates an acute form of chlamydial infection, even in cases where the pathogen is not detected by cultural or molecular methods in the biosubstrate.

7. Antibiotic treatment is effective only in the acute form of infection, the criteria of which are the presence of interferon and specific antibodies class G in the blood serum.

The main diagnostic principles myco-ureaplasmic infections:

1. All mycoplasmas, including ureaplasma, are considered conditionally pathogenic microorganisms. Normally, they are in a state of chronic persistence, metabolizing the products of cell destruction formed during the growth of tissues and organs of the macroorganism.

2. The pathogenic properties of these microorganisms occur when ingested in areas of inflammation, where there is a fertile nutritional environment for the active growth of bacteria. Therefore, the identification of the pathogen in the sample is significant only in the presence of inflammatory processes in the body.

3. The significance of mycoplasma infection in development of the clinic. However, if more than 10⁴ bacterial particles in the biosubstrate may indicate an active form of mycoplasma infection.

4. To identify the pathogen, you can use PCR methods, DNA hybridization, cultural, etc.

5. Detection of specific antibodies in the blood with a high probability speaks of an active mycoplasma infection in the body.

Basic diagnostic principles of urogenital viral infections (HSV, CMV):

1. HSV and CMV are conditional pathogens and their carriers are most of the population. Diagnosis for these infections is important if there is an appropriate clinic at the time of treatment or in history.

2. For primary patients and those without a history of complications the optimal scheme of laboratory diagnostics is a study for the presence of the pathogen in the biosubstrate of is a comprehensive (PCR) and specific antibodies in the blood (ELISA).

3. And since almost everyone has antibodies, it is advisable to determine titer of specific IgG in paired sera taken at intervals of 7-10 days.

5. The factor provoking the activation of viruses is violations functions of the neurogenic, endocrine and immune systems.

It is important for the clinician to remember about the so-called false-positive or false-negative results of laboratory diagnostics. The presence or activation of pathogenic properties of pathogens largely depends, not only on the methods used, but also on the quality of the resulting biosubstrate, its storage, transportation, chemical reagents, personnel professionalism, level specificity and sensitivity of the methods used. Naturally, the question arises, what are the criteria for the evidence of these methods and what place in medical practice do auxiliary ones, in particular, the actively introduced vegetative resonance test (ART) "IMEDIS-TEST". Undoubtedly, this is one of the rapidly developing areas in medicine, which allows a "thinking" doctor to consider the body as a single integral mechanism. And here the role and significance of microorganisms in the etiopathogenesis of many diseases is clearly traced.

Unfortunately, ART has certain drawbacks (or difficulties) when evaluating the received computer information based on all kinds of bacteria, viruses, etc. entered into the selector. When we activate a representative point for the presence of certain microorganisms, we fix the reaction of the organism or organ in the form of altered electromagnetic resonating signals. These fluctuations depend not only on the existing pathological processes in the body, but also on many other factors, in particular the ecological environment, meteorological conditions, nutrition, labor, and then ART "IMEDIS-TEST" is able to change the sensitivity to a particular pathogen. In practice, despite the rather high professional training in this direction, many doctors have an incorrect interpretation of the influence of the presence of an infectious factor on the development of the disease.

Thus, from the point of view of evidence-based medicine, laboratory diagnostic methods and information obtained using electropuncture diagnostics of ART "IMEDIS-TEST" are different concepts.

Today, imperfect methods for identifying microorganisms do not allow the clinician to have sufficient information and judge, against the background of infection, about the unfolding pathological processes in the human body as a whole.

The continuing controversial issues in this direction only contribute to the growth of chronic diseases and the intensification of confrontations between clinicians.

It should not be forgotten that any diagnostic information must be verified using both laboratory and hardware methods approved in medicine, such as the ART "IMEDIS-TEST" and which is so urgently needed by uro-andrology.

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