УДК: 616.972-078-085.33-036.8:614.4

CONTEMPORARY UNDERSTANDING OF "SERORESISTANT PHENOMENON" IN SYPHILIS: CLINICAL AND SOCIO-MEDICAL IMPLICATIONS

Kudrat M. Abzoirov - cosmetologist
Republican Specialized Scientific and Practical Medical Center of Dermatovenerology and Cosmetology (Tashkent, Uzbekistan)
cosmetologqudrat@mail.ru

Abstract. *Numerous investigators have implemented therapeutic approaches for syphilis management without adequate consideration of disease progression stages and the temporal duration of pathogen presence within the host organism. Such therapeutic strategies have resulted in compromised efficacy of targeted antimicrobial interventions. Consequently, this inadequate treatment approach may lead to the development of serological resistance in affected individuals. Contemporary scientific evidence demonstrates that therapeutic outcomes are fundamentally dependent upon accurate initial diagnostic assessment and proper evaluation of syphilis pathogen persistence duration. At present, the seroresistant phenomenon (SR) represents a critical challenge in modern syphilology practice. The persistence of positive serological test results in patient serum necessitates comprehensive investigation of alternative therapeutic modalities. Given that individuals exhibiting seroresistance may require extended periods of clinical monitoring and follow-up care, this situation generates substantial logistical challenges and imposes increased operational demands on specialized dermatovenerological healthcare facilities.*

Keywords: *syphilis, seroresistance, medical and social aspects, treatment methods*

Introduction. In recent years, the proportion of sexually transmitted diseases has been increasing all over the world. This process also has a direct impact on the epidemiological situation in syphilis (Lues). Recently, specific progress has been made on venomous infection, but nevertheless, seroresistance remains a problem in venomous. Because the measures used in the treatment, diagnosis and dispensary monitoring of patients with syphilis are increasing serological resistance, causing additional loads for skin-venereal dispensary personnel[1].

In addition, among patients who were monitored by a dispensary, the opinion was spread: "the poison does not heal, it is only pressed." Patients are experiencing negative emotions - irritability, distrust of medical personnel. Today, a special place in syphilidology is occupied by the state of seroresistance (SR). The positivity of serological reactions in the blood in patients requires the study of various treatments. Considering that patients with seroresistance can stay in the dispensary account for a long time, this causes additional discomfort and increases the load on the skin-bodyless dispensary[2].

Consequently, it is important to identify the reasons for the development of seroresistance in syphilis. This work attempted to identify the above aspects, using modern specific treatment, as well as new diagnostic methods to differentiate seroresistance from false positive serological biological reactions.

As we noted above, there is an opinion among patients that due to seroresistance in syphilis, syphilis does not heal completely, but only "fades". This thought develops because the Serological reactions of the blood are positive. Patients can stay in the dispensary account for a long time[3].

Many reasons can be listed for the development of seroresistance in syphilis: according to the primary established diagnosis, if incomplete treatment was carried out in this, if the patient has many companion diseases, when the immune status decreases, when there is damage to the nervous system, and other factors. From the above, it is necessary to carry out the following in order to treat patients with seroresistance in syphilis[4].

In recent years, specialized sources have increasingly described the problem of seroresistance in Zakhm. Some scientists propose to evaluate this condition as a separate nosological unit. Syphilidologist scientists, active in the 70s and 80s of the 20th century, had many different opinions and theories about the development of seroresistance in Zakhm, taking into account the causal factors.

A.A. Studnitsin and M.N. Bukharovich noted the importance of special treatment, its quality and duration in the development of serorezistence, as well as companion diseases of patients.

P.G. Nazarov noted the importance of the autoimmune condition of the organism of patients with seroresistance in Zakhm[5].

Seroresistance in zaxm can last for a long time, in which various changes in the immune system are observed. During this period, antibodies and antigens are produced by "Virgin treponema". Some authors argue that immunity decreases in seroresistance, and companion diseases, as well as alcoholism, drug addiction and tobacco smoking, are important in this (M.M. Shakirov, K.A. Yuldashev, K.M. Abzairov).

In the practice of the health system, benzylpenicillin and its long-acting drugs are widely and freely used in the treatment of syphilis, patients can buy them from pharmacies and self-medicate. As a result, patients with syphilis may develop seroresistance due to existing visceropathology and nervous system toxicity. At the same time, the patients themselves will need special treatment of additional quality[6].

As a causal factor of seroresistance in zaxm, visseropathology and neurosyphilis have been shown in different years by different authors from 1.5-2% to 10-12%. At the same time, the researchers indicated a special treatment of poor quality in the formation of seroresistance.

Despite the effective treatment, "leak treponema", which is present in the patient's body, causes the development of serological positivity in the blood of patients. In these cases, seropositivity is difficult to assess in practical and theoretical terms[7].

Sometimes, when an additional special treatment is prescribed in the practice of syphilidology, patients may develop a race-Gerksgeimer reaction (increased body temperature, subjective sensations - headache, weakness, general impotence). This trigger-leak proves the presence of treponema and a change in the state of immunity (K.A. [8]

For the first time, we studied the state of endogenous intoxication before special treatment in patients with seroresistance in syphilis, and all indicators were found to be high. After further treatment, the detected endogenous intoxication indicators decreased significantly, which indicates an improvement in endotoxicosis under the influence of the specific treatment carried out (K.A. Yuldashev, K.M. Abzoirov, 2014).

On the basis of the "standard for treatment diagnostics and dermatovenerology" adopted in the Republic of Uzbekistan in 2021, seroresistance in Zakhm is described as follows: "serological positivity in the blood after 1 year after the adoption of Special Anti-Zakhm therapy," in which Wasserman positive reactions with cardiotreponema and treponema antigens are maintained, as well as positive tremors of Reagins in microreakes.

If, after a year of therapy in patients with Wasserman's reaction in the blood, microreaction remains positive, but Reagin titers tend to decrease by 4 times, such patients should be in dispensary control for another 6 months[9].

In the additional treatment of seroresistance, when choosing a treatment method, it is necessary to take into account that the concentration of the antibiotic in the blood is maintained at a high level, for a long time. It follows that patients with seroresistance in zaxm are advised to use water-soluble benzylpenicillin in these cases, ensuring high blood concentration of the antibiotic and the possibility of passing the antibiotic through the hematoencephalic barrier (GET).

As you know, in recent times, the epidemiological composition of the disease in Uzbekistan is dominated by early latent syphilis (more than 70%). Given this fact, the emergence of new methods and the change in the duration of observation will be understandable. Sensitivity of serological

reactions of the blood in patients with seroresistance in zaxm/ currently, in the diagnosis of zaxm, a wide complex of seroreactions in the blood is used, in which different sensitivity is recorded[10].

At different stages of venereal infection, various positive serological reactions of the blood are noted, which depends on the state of immunity and the existing companion diseases in patients. The positivity of simultaneous blood seroreakes at different stages of syphilis is accompanied by clinical manifestations. When anti-venomous therapy is used, the above serological reactions serve to reflect on the effectiveness of treatment. In this case, serological reactions of the blood are studied in dynamics - before and after specific treatment. It is necessary to pay attention to the picture of the negation of seroreactions in the blood, as well as the decrease in the Tetra of geagins. Negativization of blood seroreactions and decreased reagent titers are good indicators of the effectiveness of the specific therapy performed[11].

During the dispensary observation period, it is necessary to observe the dynamics of blood seroreactions, and when positivity is maintained, patients can be examined to identify companion diseases and treated with the addition of immunostimulants, Hepato - and cardioprotectors for these diseases. In this case, blood should be examined in seroreactions before and after further treatment[12].

Currently, serological examination and dispensary control of patients with syphilis in Uzbekistan is carried out on the basis of the 2021 "diagnostic and treatment standard for dermatovenerology". On the basis of the standard, the microprecipitation reaction (MPR) in the cross section of district treatment institutions (cabinets, departments), the MPR and Wasserman reaction in urban DPM (skin-body cabinets, departments and dispensaries) are determined by the antigens treponem and cardiolipin.

In specialized regional hospitals for skin-venous diseases (regional hospitals for skin-venereal diseases and Urban Skin-venereal institutions), seroreactions are defined as: microreaction (m/R), classical seroreactions, immunoferment analysis (IFA), passive hemagglutination reaction (PGA), immunochromotographic analysis (IXA).

The purpose of the study. The study of modern concepts and medico-social aspects about the "seroresistance condition".

Material and methods of research. In our material, the appearance of serological reactions in 110 patients with seroresistance in Venom was to varying degrees positive. Wasserman's reaction to the cardiolipin antigen in the blood was negative (-) in 54 patients, with 6 reported - (+), 30 reported - (2+), 14 reported - (3+), and 6 reported - (4+). Wasserman's reaction with treponemal antigen was: 57 were negative (-), 8 - (+) doubtful, 22 (2+) weakly positive, 11 (3+) positive, and 12 (4+) sharply positive. At the same time, Wasserman's reaction with the cardiolipin antigen was more sensitive to the treponemal antigen.

Microreaction became more sensitive: 11 patients had - (-); 12 patients had - (+), 34 patients had - (2+), 34 patients had - (3+), and 19 patients had seroresistance - (4+).

In patients with seroresistance in zaxm, before starting additional treatment, the reaction of immobilization of pale Treponema (RIBT) was positive: from 31% to 50% - 3, from 51% to 70% - 6, and from 71% to 100% - in 100 patients.

Patients with seroresistance in zaxm had rif-200 positive in their blood: (+) - 1, (2+) - 10, (3+) - 34, and (4+) - 65.

In the blood of patients with seroresistance, the rif-ABS was more sensitive and positive: (2+) - in 7 patients, (3+) - in 7 patients, and (4+) - in 54 patients.

Thus, microreaction and rif-ABS showed high positivity among serological blood reactions in patients with seroresistance in the venom.

1. All positive serological reactions in the patient's blood should be studied in dynamics;

2. It is necessary to pay attention to the age of the patient, those over 60 years old can be removed from dispensary control;

3. An analysis of existing somatic diseases that are not listed in the account on Alcoholism and drug addiction is required;

4. It is necessary to clarify the type and quality of anti-venomous therapy carried out according to the primary identified diagnosis;

5. Clarification that clinical-serological observation is carried out in time and dynamics;

6. Have the complications of syphilitic infection in patients been studied through the advice of accompanying specialists (therapist, neuropathologist, ENT-doctor, ophthalmologist and radiologist)?

Through the analysis of the above measures, it will be necessary to identify the mistakes made and thus draw up a quality complementary treatment plan under the supervision of the patient.

We studied patients with seroresistance in zaxm in different years and the causative factors of the development of this condition in the US SSV Ripiatm.

The first group of those examined included 110 patients with seroresistance, and in this it was distributed according to the primary diagnosis: secondary syphilis was detected in 9 patients and latent early syphilis in 101 patients.

The second group of patients with seroresistance included 125 (56% male, 44% female), who were similar in data to group i patients. In patients with seroresistance before starting further treatment, the following were observed: up to 41% of patients in the Wasserman reaction with cardiolipin antigen, up to 50% in the Wasserman reaction with troponymy antigen, up to 84.6% in microreaction. Rif-200, rif-ABS, RIBT were found to be positive to varying degrees in 100% of patients.

At the same time, we studied the condition of 349 patients with latent early syphilis. When these patients were carefully examined using ultrasound of the internal organs, ECG, reg, EEG of the nervous system, liquor examination, the following were found::

- 4.2% of 75 patients with latent early syphilis reported aortitis and 3.5% reported venomous myocarditis;
- deviations by the nervous system were recorded in 8.4 of the 349 patients with latent early syphilis;
- spinal fluid (OMS) was examined from 48 patients with latent early syphilis and in 42 cases different levels of Pathology were identified, indicating damage to the nervous system;
- of the 112 patients with latent early syphilis, 63 were diagnosed with biochemical tests and various degrees of liver damage in the UTT.

The information obtained above indicates that the hidden poison does not always remain "hidden", and when carefully examined, various deviations can be detected. This triggers the development of seroresistance in the venom.

Often in patients with latent early syphilis, special treatment is carried out on an outpatient basis, in which the regimen is disrupted, which causes a violation of the therapeutic concentration of antibiotics in the blood of patients. This also causes the development of seroresistance in syphilis over the age of 40.

Results and discussion. Of the 110 patients with seroresistance in zaxm, 47 (42.7%) were diagnosed late and given poor quality with specific treatment standard disorders.

Patients were treated late in outpatient conditions despite certain diagnoses, some antibiotics used did not pass the hematoencephalic barrier, which is accompanied by the development of neurosyphilis, and positive seroreactions of the blood are preserved, which also causes the development of seroresistance.

Comorbid diseases in patients cause the development of seroresistance in the venom. Thus, in 73 (66.3%) of 110 patients with seroresistance in zaxm, side diseases were found. The structure of diseases identified by US was studied.

The age of patients ranged from 19 to 68 years (men-37, women-36). Patients under the age of 20 - 1, between the ages of 21 and 30 - 14, between the ages of 31 and 40 - 17, between the ages of 41 and 50 - 18, between the ages of 51 and 60 - 13 and 61 and over - 10 patients with seroresistance in the poison.

It should be noted that 5-6 nosological units were found in patients aged 40, and most of the disease was chronic in nature.

In patients with seroresistance in zaxm, the Serological appearance of blood was more pronounced, being to varying degrees positive. In doing so, Wasserman's reaction with treponemal antigen showed positivity in 47.9% of patients, and RV's reaction with cardiolipin antigen in 45%. Microreaction (m/R) was more sensitive and was observed in 88.5% of patients. RIBT, rif-200 and rif-ABS were positive in all 100% of cases.

In addition to serological tests of blood in patients, Anamnesis was studied and functional and instrumental tests - UTT, ECG, reoencephalography (reg), electroencephalography (EEG) and other methods were performed.

In addition to the above studies, patients consulted a therapist, neurologist, ophthalmologist, ENT doctor and radiologist based on the results of functional tests.

In men, lubricants were taken for bacteriological and bacterioscopic examinations for the purpose of diagnosing other JYOYUK from the urethra and from 3 points in women (urethra, vagina and cervix).

Results of the study: on the basis of thorough instrumental studies in patients with seroresistance in syphilis and the advice of relevant specialists, side diseases were identified. Changes were observed by the cardiovascular system (ulcerative), nervous, urinary-venous system, visual organ and JYOYUK.

In patients with seroresistance in zaxm, an examination by the gastrointestinal tract revealed Burns in 52 (72.2%) cases, including: 31 (43%) chronic cholecystitis, 12 (16.6%) liver steatosis, 2 (2.7%) chronic splenogepatitis, 5 (6.9%) chronic persisting hepatitis, 2 duodenal ulcers.

Among the related diseases, the cardiovascular system (YuQTT) took a special place, and disorders of cardiac automatism, excitability and permeability were noted in them. These were identified by the use of ECG, Exox, ExoKG, as well as confirmed on the advice of a therapist and cardiologist.

At the same time, aortitis was found in 3 (4.1%) of the 25 patients with seroresistance in the venom involved in the investigation, and myocarditis in 4 (5.4%).

By performing neurophysiological tests (reg, EEG) and examining patients by a neurologist, changes in the nervous system were found in 19 (26.3%) cases. Of these, 19 (26.3%) patients were diagnosed with the following pathologies: MNS assenization - in 2 cases (2.9%), vegetative dystonia of the vessels - 3 (4.1%), dissirculatory encephalopathy - 8 (11.1%), chronic cerebral leptomeningitis - 3 (4.1%), psychosis - 1 (1.3%), astheno-neurotic syndrome - 1 (1.3%), MNS intoxication - in case 1 (1.3%). A thorough examination of patients with seroresistance in syphamum revealed various comorbidities in 28 (38.8%) of those tested. Of these, 2 (2.7%) were diagnosed with chronic prostatitis, 7 (9.7%) with chronic pyelonephritis, 1 (1.3%) with chronic adnexitis, 4 (5.4%) with bacterial urethritis, 1 (1.3%) with uterine fibroids, 3 (3.9%) with chronic endocervicitis, 2 (2.7%) with chronic endometritis, and 8 (11.1%) with chronic colpitis.

JYOYUK triggers were found to be: ureaplasmosis in 8 cases (11.1%), chlamydiosis in 3 (4.1%) cases, gonorrhea in 1 (1.3%) cases, trichomoniasis in 1 (1.3%) cases, gardnerellez in 6 (8.3%) cases, genital candidiasis in 11 (15.2%) cases.

The following diseases were identified by the visual organ: 1 (1.3%) had myopia, 1 (1.3%) had senile presbyopia, and 1 (1.3%) had retina angiopathy.

The following dermatoses were identified in those examined: vitiligo in 1 (1.3%) cases and toxicodermia in 7 (9.6%) cases.

Interestingly, in patients with seroresistance in zaxm, burn disorders in nosological units: 5 diagnoses were found in 2 (2.7%) patients, 4 diseases in 3 (4.1%) patients, 3 nosologies in 8 (11.1%) patients, 2 diagnoses in 22 (29.7%) patients, and 1 diagnosis in 25 (33.6%) patients. It is important in the occurrence of seroresistance in venereal disease, especially when the nervous system is damaged. The venom causative agent "leak treponema" is an anaerobic germ that reproduces well in the lymphatic system and nerve endings, a process that can last for years. As a result, neurosyphilis develops, for the diagnosis of which the following is necessary:

- Repeated blood tests, immunological tests, clinical changes by the nervous system, as well as, most importantly, spinal fluid tests are important in the diagnosis. This method is very sensitive. Spinal fluid testing is important and has been used for a long time, testifying to damage to the central nervous system by syphilis, and is the only method in venereological practice. Even in the initial period of poisoning, it is possible to determine the change in its indicators by checking the spinal fluid. In addition, the total amount of protein and its coefficient are determined in the liquor, as well as pandi, Nonne-Apelt globulin reactions are also carried out. Liquor is checked in serological reactions: Wasserman reaction, microreaction, from special reactions - RIBT, Rifs (with whole liquor).

Indicators in the norm are: shaped elements - no more than 7 at 1 mm3, total protein content - no more than 0.33‰ (promille), protein coefficient-0.2, Nonne - Apelt and pandi globulin reactions-negative, as well as serological reactions such as Wasserman reaction, microreaction, RIBT, rif-s should also be negative.

In the hospital of dermatovenerology and cosmetology of the Ministry of health of the Republic of Uzbekistan RIIATM, 38 patients treated due to seroresistance in Zakhm were diagnosed with a pathology of liquor. Of these: 4 patients were diagnosed with primary syphilis, 11 with secondary syphilis, 20 with latent early syphilis, and 3 with latent late syphilis.

The most sensitive indicator in the study was an increase in cytosol - shaped elements, which was reported in 34 out of 38 patients (89.4%). In 33 of the 38 patients examined (86.8%), it was found that the total protein content increased to 1.66‰. The protein coefficient has practically not changed.

The Nonne-Apelt reaction from Globulin reactions was positive in 28 (73.7%) patients with seroresistance in zaxm. In 22 of these, the Nonne-Apelt reaction produced 2 (+), and in 6 (4+).

The Pandi reaction was positive in 32 (84.2%) cases. Of these: 2 cases (+), 28 cases (23,7%) (2+), 2 in ta patients (3+) the result was recorded.

In liquor, serological reactions (Wasserman reaction, microreaction, RIBT, rif-s) showed specific sensitivity and were positive in 30 (78.9%) cases. Of these: the Wasserman reaction tested positive in 2 (5.2%) patients, RIBT in 12 (31.6%) patients, and Rifs in 26 (68.4%) patients. The above serological reactions were found to have high sensitivity in the liquor.

As a result of a thorough examination of the above patients and the advice of a neurologist and other specialists, various pathological symptoms were identified by neurosymptomatics: blackout symptoms, cranial nerves, damage to the pay reflexes. At the same time, neurological symptomatology was accompanied by pathological changes by liqueur.

Conclusion. It should be noted that sometimes the liquor may have changed, but neurological symptoms may not be detected. This condition is interpreted as "asymptomatic meningitis". Thus, in the case of seroresistance, it is very difficult to detect changes in the nervous system, although they can be included in the immediate causes of the development of the above condition. Primary treatment, antibiotic treatments that do not cross the hematoencephalic barrier (GET) are important in this. So, the quality of treatment carried out on a primary diagnosis should be carried out, preference should be given to antibiotics that pass through the GET to prevent the development of neurosyphilis, which can cause the development of seroresistance in the poison. Most scientists paid special attention to immune status in the development of seroresistance in zaxm. We have studied some aspects of cellular immunity.

REFERENCES

1.Alperovich B.I., Merzlikin N.V., Schei W.F. Surgical biscuit. – M.: Geotar-Media, 2013. – 352 P.

2.Beburishvili A.G., Mikhailichenko V.Yu., Zubina E.N. Biliodigestivnie anastomozi v hirurgii jelchnix protokov // Volgogradsky nauchno-medisinsky Journal. – 2019. – №1. - S. 23-28.

3.Borisov A.E., Katshenko V.A., Potashov L.V. Hirurgicheskaya Hepatology. - Spb.: Foliant, 2017. – 560 P.

4.Vinogradov V.V., Vishnevsky V.A., Kuznesov N.S. Reconstructivnaya hirurgy pri strikturax jelchnix protokov / / Annali hirurgicheskoy gepatologii. – 2015. - T. 20, №3. - S. 12-19.

5.Vishnevsky V.A., Kubishkin V.A., Zhao A.V. Operasii na pecheni. – M.: Miklosh, 2015. – 142 P.

6.Galperin E.I., Akhaladze G.G. Biliarnaya hypertension: pathogenesis, diagnostics, lechenie. – M.: Media, 2014. – 264 P.

7.Galperin E.I., Momunova O.N. Classification tyajesti mechanicheskoy jeltuxi / / surgery. – 2014. – №1. - S. 5-9.

8.Kochnev O.S., Nechai A.I. Surgery pecheni I jelchnix putey. – M.: Media, 2018. – 368 P.

9.Kubishkin V.A., Vishnevsky V.A. Rak podjeludochnoy zhelezi. – M.: Medpraktika, 2013. – 386 P.

10.Kubishkin V.A., Kozlov I.A., Shishin K.V. Oslojnenia v hirurgii pecheni I jelchnix putey. – M.: Miklosh, 2016. – 194 P.

11.Nartaylakov M.A., Mustafin A.X., Aminov G.G. Diagnostics I Hirurgicheskoe lechenie striktur jelchnix protokov / / Annali hirurgicheskoy hepatologii. – 2018. - T. 23, №2. - S. 45-52.

12.Patyutko Yu.I., Kotelnikov A.G. Surgical biscuit. – M.: Prakticheskaya medisina, 2016. – 298 P.