

THE PROBLEMS OF ECOLOGICAL AND MEDICAL GENETICS AND CLINICAL IMMUNOLOGY

The scholarly works collection. Issue 6 (102): Kyiv-Lugansk. – 2010. – p. 271-280

THE PECULIARITIES OF CHRONIC PROSTATE VESICULITIS THERAPY

N.M. Borodina, V.I. Merkulov, E.B. Zakharova, I.V. Tyutyunnik, Yu.V. Kukurekin
Lugansk regional clinical psychoneurological hospital
Lugansk regional war veterans' hospital
Municipal multifield hospital №4, Lugansk
Municipal polyclinic №12, Lugansk

ABSTRACT

The results of the application of the antimicrobial drug Gatilin, relating to the fourth-generation fluoroquinolones, have been assessed in complex treatment of the patients with [exacerbation](#) of chronic bacterial prostate vesiculitis. The apparent clinical effect – 94.4% of patients marked pain and discomfort relief in the genital area, in 83.3% of cases the number of leukocytes in prostatic fluid and [sperm](#) decreased, there was a note of a positive ultrasound dynamics in 80% of cases. Effectiveness and ease of the application, minimum level of side effects, short treatment period, and affordable price of the medicine enable to recommend Gatilin for the application in complex therapy of chronic prostate vesiculitis.

Key words: chronic prostate vesiculitis, Gatilin, antibacterial therapy, chronic pelvic pain syndrome.

INTRODUCTION

Chronic prostate vesiculitis is one of the most frequently occurring diseases among mature males of reproductive age. Pain syndromes present the biggest problem in treatment [2]. Chronic prostatitis is often a

cause of sexual disorder and can be accompanied with some subjective sensations of different intensity, which are often defined as chronic pelvic pain syndrome, though it may be caused by other disease states [4,5,10]. The diagnostics of chronic prostatitis, vesiculitis, prostate vesiculitis, [posterior urethritis](#), and [epididymitis](#) presupposes detection of causative agents of masked infections: [chlamydia](#), pleuropneumonia-like organisms, ureaplasma, genital herpes viruses, cytomegaloviruses, gardnerella, and other sexually transmitted causative agents [6]. Thus, urogenital [inflammatory diseases](#) that may cause such sexual disorders as erectile dysfunction, [prospemia](#) and other phases of copulatory interval, as well as male sterility, are related to different infection [4].

Special complexity in treatment is presented in cases of prostatitis, when they are combined with seminal vesicular disease. Possible presence of vesiculitis in an isolated variant is often accompanied by pain syndrome of different intense in the iliac area of lancinating or pressing character from one (one-sided vesiculitis) or both sides (two-sided vesiculitis) [3,13]. There may be the presence of painful and cutting

ejaculation, changes in the sperm composition, or an elevation of body temperature. Moreover, pathospermia (pyo-, zoospermia) frequently causes male sterility, usually treated as the [excretory toxic form](#). The existing treatment methods and regimens do not always have a positive effect. Low cure rate of antibacterial medicines can be explained with that fact that the diffusion of many medicines into prostatic fluid does not occur even if their level in blood is high. These factors as well as the anatomical and physiological characteristics of the prostate gland and gonocysts position, the peculiarities of pathomorphological patterns of inflammation in these masses, impede medicines getting into them. The main limiting factor of antibacterial therapy efficiency is a very poor cummulation capacity of antibiotics in prostate gland tissues.

Rather frequent detectability of inflammatory processes in the gonocysts ([vesiculitis](#)) makes it possible to assume a sustained existence of a reservoir of causative agents, “hiding” from antibiotics in such a hard-to-reach place. This leads to dissemination of abnormal changes, their aggravation, and transformation of serious inflammatory process in the gonocysts into a pyogenic one. Herewith, clinical implications may be obliterated, latent, but on the whole chronization occurs, aggravating symptomatology of the disease. Patients with complaints and such clinical implications may be treated by [gastroenterologists](#), [physicians](#) or proctologists for a long time without any success. That’s why it is very important to make an early diagnosis and treat effectively aggravations of chronic prostate vesiculitis and vesiculitis at the early stages of the prostate gland and the gonocysts disorder formation.

Prostate vesiculitis treatment must involve etiotropic medicines and those based on pathogenetic action, taking into consideration individual differences of each patient. Antibiotics must constitute a baseline therapy in case of urogenital infections, regardless of the disease acuity

and duration, and the existence of aggravations [1].

Ethiopathogenetic treatment of patients with chronic prostate vesiculitis, especially its aggravations, must involve the identification of the type of infection. The main criteria for prescribing antibacterial therapy is individual indices of bacteriological examination of the prostate gland secretion, first of all, for TORCH-infections, with [immunofluorescent assay \(IFA\)](#) and [PCR-method](#) [15]. The cause factors of chronic bacterial prostatitis are Gram-negative bacteria, primarily, E.coli, Proteus, Enterobacter, Klebsiella, less frequently - Gram-positive bacteria: Enterococcus, Staphylococcus, Streptococcus [12].

When choosing an antibacterial medicine a preferable one is that having a broad antimicrobial spectrum of action, high activity toward the causative agents, identified at the stage of laboratory examination, high bioavailability, sufficient tissue and intracellular concentration, long elimination half-life, high tolerability, absence of ototoxicity, nephrotoxicity or hepatotoxicity and proved effectiveness.

THE AIM of the research was the assessment of clinical efficiency of the antimicrobial drug Gatilin (gatifloxacin), relating to the fourth-generation fluoroquinolones, in complex treatment of [exacerbations](#) of chronic bacterial prostate vesiculitis and vesiculitis. Gatilin is represented at the pharmaceutical market by “Ananta Medicare” company. The drug is available in a pill form of 200 mg and 400 mg №10. It is characterized by an ultrabroad spectrum of activity, efficient pharmacokinetic characteristics as well as affordable price that determined the choice of this drug as a subject of research.

MATERIALS AND METHODS OF THE RESEARCH

36 patients aged 22 to 44 years took part in the research. The examination of the patients was carried out using a standard urological research: an examination of external genital organs, a digital rectal examination, a clinical urine analysis, an analysis of the prostate gland secretion and an ultrasound

investigation of the pelvic organs. Microbiological studies were conducted using IFA and PCR methods.

The intensity of the inflammation was assessed according to the next characteristics: a pain syndrome, disorder of micturition, changes of a leukogram in sperm and the prostate gland secretion, changes detected in the process of ultrasound investigation of the pelvic organs.

The patients' state was assessed before the treatment, right after the treatment and in 40 days after its termination.

The prescribed dose of Gatilin was a single 400 mg dose a day. Besides Gatilin the patients received Prostatilen (5 mg intramuscularly), as well as biological stimulants (aloe, vitreous humor). For better penetration of medicines into the tissues of the prostate gland and for the enhancement of curative effect the drug treatment was provided against the background of the laser rectal therapy using the apparatus "Orion Zhiva" (Moscow) and JIY (LU) ("Appamed", Kiev). The course of treatment constituted 10 days. Such treatment regimen made it possible to achieve a full therapeutic effect within 10 days that is very important for psychological and financial state of the patients.

The results of the treatment were assessed comparing the subjective patients' state and the dynamics of the objective indices, in particular, of the laboratory data, and the check ultrasound diagnosis of the pelvic organs.

The effectiveness of the treatment was acknowledged as there was a quick (within five days) improvement of a subjective patients' status (significant reduction or relief of painful sensations) and positive changes of a range of objective indices. After studying them, ten days after the termination of the complex therapy – the normalization of the number of leukocytes in the sperm, the improvement detected as a result of sonographic examination of the prostate gland and the gonecysts.

RESULTS AND DISCUSSION

The examination of 36 patients showed the aggravation of chronic bacterial prostate vesiculitis or serous vesiculitis that was proved by the data of ultrasound examination of the pelvic organs. In the ultrasound examination of the pelvic organs the serous inflammations of the gonecysts were detected in the form of distended enlarged masses on one or both sides with plain clear borders and uniform contents, as a rule, without a path of intensification behind the posterior wall. In the one-sided process the asymmetry of the prostate gland was noticed together with the enlargement of its lobe and thickening of the capsule on the affected side.

The diagnosed affections of the prostate gland and the gonecysts in the form of the serous vesiculitis with this or that degree of intensity of a pain syndrome (chronic pelvic pain) were accompanied with a copulative function disorder: erectile dysfunction, and prostermia (acquired).

The increased level of leukocytes and the reduction of the number of lecithin grains were detected in the prostate gland secretion.

The microflora was represented by the following microorganisms: chlamydia – 22,6%, mixed microflora (Gramm-negative and Gramm-positive) – 77,4% of cases.

During the treatment course as a result of daily observation of the patients there was a note of the improvement of a subjective state of 14 people (38,9%) since the first days after the beginning of taking Gatilin – the decrease of a pain syndrome with its full relief in five days. The patients noted the reduction of pain in the perineal and iliac areas, the decrease of cutting sensation in the process of micturition, and of sense of discomfort in the genital organs. In ten days after the termination of the complex treatment 33 patients (94,4%) noted the subjective improvement. In our opinion, a quick clinical effect was achieved owing to the combination of a range of factors:

a) favorable pharmacokinetic properties of Gatilin, characterized by a long period of elimination (7-14 hours), as well as the retention of a high level of the drug in blood and tissues of the prostate gland. It created

the effect of a “loading dose” during the whole treatment course;

b) a broad antibacterial activity spectrum of Gatilin (Gramm-negative, Gramm-positive, atypical, anaerobic microorganisms);

c) the enhancement of Gatilin action with the laser rectal therapy using the apparatus “Orion Zhiva” (Moscow) and JIY (LU) (“Appamed”, Kiev). Its effectiveness is proved by a long-term experience of its application in a clinical practice.

Table. The dynamics of the objective indices after the termination of the treatment (n=36)

The data of the ultrasonography of the pelvic organs	The laboratory data		
	Absence of aggravation	Presence of aggravation	Absence of infection
30 (83,3%)	6 (16,7%)	34 (94,4%)	2 (5,6%)

Since sexual relations were not forbidden for the patients, the received information about a sex life indicated that most men noticed the improvement of the quality of a copulative act: the absence of a pain syndrome during a sex intercourse and an ejaculation, the improvement of the quality of erection and a longer friction period. Thus, there was a note of the improvement of the quality of the men and their families’

life that is a model of the final results of the therapy of every case of sexual function disorder as consequence of chronic prostate vesiculitis and its complications.

The changes of the objective data are presented in the table.

The data dynamics of the ultrasonography of the pelvic organs and the results of the laboratory studies (the reduction of the number of leukocytes in sperm and the decrease of the microorganisms titer detected by the IFA blood test), represented in the table, fully corresponded to the patients’ subjective state that indicates of a significant clinical effectiveness of the proposed treatment regimen of chronic prostate vesiculitis.

CONCLUSION

- In case of a chronic pelvic pain it is necessary to examine a patient for the possible presence of aggravations of chronic prostate vesiculitis or serous and pyovesiculitis.

- Treatment of the prostate vesiculitis must be conducted after a microbiological examination.

- Treatment must be complex and include, as an obligatory component, an antimicrobial medicine with a broad antimicrobial spectrum of activity.

- Application of the drug Gatilin, relating to the fourth-generation fluoroquinolones, against the background of a laser and immune therapy is advisable.

- Pain syndrome relief as a result of a complex treatment occurs within 5-10 days.

- The described treatment regimen permits to recuperate the copulative function and to improve a family’s quality of life.