



MODERN POSSIBILITIES FOR THE TREATMENT OF CHRONIC PROSTATITIS

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<https://doi.org/10.5281/zenodo.11261503>

ARTICLE INFO

Qabul qilindi: 10-May 2024 yil

Ma'qullandi: 15-May 2024 yil

Nashr qilindi: 23-May 2024 yil

KEY WORDS

chronic prostatitis, chronic pelvic pain syndrome, prostatic pain syndrome, symptom lower urinary tract, antibiotic therapy

ABSTRACT

This article formulates recommendations for providing assistance to men with chronic prostatitis, taking into account features of etiopathogenesis and clinical picture of this disease. It is substantiated that to increase efficiency treatment should preferably not rely on the traditional classification of prostatitis proposed by the American National Institutes of Health and the National Institute of Diabetes, Digestive and Kidney Diseases (NIH NIDDK, 1995), and to the more modern classification UPOINT. The indications for prescribing various drugs and non-drug effects have been clarified: antibiotics, alpha blockers, M-anticholinergics, analgesics, antidepressants, herbal medicines, pelvic floor physiotherapy, psychotherapy.

Treatment of chronic prostatitis (CP) remains challenging task [1–4]. Lack of efficiency therapy and frequent relapses are due to complex pathogenesis of this disease, in which the inflammatory process is not always accompanied by clinical manifestations, and, conversely, severe pain and lower urinary tract symptoms (LUTS) may occur in the absence of an inflammatory process in the prostate gland, but components are involved in the pathological process central and peripheral nervous and muscular systems. Characteristics of the inflammatory process represents a difficult task, since the etiological factor can be both typical uropathogens (*Escherichia coli*, etc.) and difficult to identify intracellular pathogens (*Chlamydia trachomatis*, *Ureaplasma urealyticum*, *Mycoplasma hominis*, etc.), which often do not appear on the outer mucous membranes due to blockage of the acini of the gland, can also autoimmune inflammation may occur [1–8]. The mechanism of penetration of microorganisms is not completely clear in the pancreas. The subject of discussion remains the issue of the relationship between CP and the quality of sexual life and male fertility [5–8]. The latest European clinical guidelines, Guidelines EAU (European Association of Urology, 2016) issues of treatment of bacterial prostatitis, pancreatic pain syndrome and LUTS presented in different sections, although they are traditionally considered manifestations of one disease [5, 9], while CP is excluded from the list of causes of male infertility [10]. This article is an attempt based on the analysis of scientific literature and generalization of the results of the work of uroandrological clinics and relevant departments of the postgraduate system

professional education in which he works author, formulate recommendations for providing assistance to men with CP, taking into account the characteristics of the etiopathogenesis and clinical picture of this disease.

Epidemiology

Prostatitis is the most common urological disease in men under 50 years of age. At least 1 time in their lifetime, 35–50% of men reported LUTS characteristic of prostatitis. In 8–11% of Europeans and 3–16% Americans prostatitis is recurrent disease. Russian colleagues find HP almost every 2nd man who consulted a urologist [1–4, 11–14]. According to our data, the inflammatory process in the pancreas occurs in 19% of men [8].

Clinical forms

Currently used classification prostatitis, proposed by the American National

National Institute of Health and National Institute diabetes, digestive and kidney disease (NIH NIDDK) in 1995 (NIDDK Workshop Committee, 1995), founded on the division of all forms of prostatitis depending on the presence or absence of a bacterial agent, leucocytes in pancreatic secretions and clinical manifestations. According to this classification, there are 4 categories prostatitis: acute bacterial, bacterial CP, CP/chronic pelvic pain syndrome (CPPS) and symptomatic prostatitis [1, 4, 5, 12, 13]. Each of these categories have different LUTS profiles (Table 1). Clinical experience shows that the boundaries between various forms of prostatitis are blurred. Impairment of the drainage function of the pancreas, blockage of the ducts of the gland with purulent secretion, decreased secretion of the total volume of secretion after massage of the pancreas in the absence of vii increase in the number of leukocytes in it "simlyate" HP category IIIB. Restoring outflow secretion as a result of medicinal and physiotherapeutic influences makes it possible to establish inflammation nature of CP (category IIIA), and the use adequate methods for detecting infections (not only sowing, but also methods of gene amplification) – its true infectious nature (category II). To infectious factors that cause inflammation during sterile inoculation, some include tricellular persistent microorganisms (*C. trachomatis*, *U. urealyticum*, *M. hominis*, etc.) and anaerobes. Therefore, antibiotic therapy in half of the cases appear to be effective in eliminating inflammation treatment in non-infectious CP [4, 12, 14]. Question about whether it is necessary to consider inflammatory and non-inflammatory body types of CP/CPPS (categories IIIA and IIIB) one disease, but with different manifestations, still not resolved. It was shown that it was possible to distinguish between categories IIIA and IIIB based on the results of concentration measurements of pro-inflammatory interleukin 8 in sperm [7]. Penetration of microorganisms into the pancreas during CP categories I, II and IV possibly ascending through urethra or transrectally by lymphatic route [15, 16]. Relapses of infectious inflammatory CP may be a consequence of the persistence of microorganisms in the pancreas, sexual transmission and reinfection from the source, which is the intestines. There is data on the times development of pathogenicity of *E. coli* and ability to overcome anatomical and immune barriers in healthy youth breath of men without urological risk factors due to changes in phylogenetic background and accumulation repertoire of extraintestinal pathogenic virulent genes. At the same time, resistance to antibiotics gives great added benefit for strains *E. coli* in these healthy patients [16]. Antiseptic properties of pancreatic secretions may be an important factor to prevent relapse [8]. Risk factors for CP categories I, II and IV in men cause include enlargement of the pancreas and urological complications irregularities such as

transrectal pancreatic biopsy [5, 12, 13]. Diarrhea and constipation associated with the disorder barrier function of the rectum, some authors considered as a provoking factor HP [14]. According to a recent Chinese study, (more than 1500 examined in 2 cohorts). Risk factors for CP/CPPS include dietary habits and the patient's lifestyle: night work, smoking, consumption of alcohol, spicy foods and small amounts fluid quality, long interval between urination scans, excessive sexual activity, artificial natural prolongation of sexual intercourse, stress [17]. Analysis of the international database on prostatitis showed that pain in CP is localized in the perineum (63%), testicles (58%), in the pubic area (42%) and on tip of the penis (32%), during ejaculation (45%); almost in half of the cases (43%) dysuria occurs [11]. Often with CP there is a decrease in the duration sexual intercourse and the development of premature ejaculation [6]. Against the background of CP, the quality of life decreases, compared Viable with angina pectoris, myocardial infarction, disease Crohn's and diabetes mellitus [18]. Decrease in quality life is proportional to the intensity of pain, the number sources of its localization and frequency of exacerbations; more unpleasant sensations are caused by pain during ejaculation. On independent factors of quality decline life with CP include premature ejaculation, erectile dysfunction and infertility [2–4]. Recently in a large study by V. Magri et al. (cohort about 914 patients) showed that more severe clinical symptoms of CP were noted in patients with infection in the pancreas (median NIH 24 versus 20), except In addition, the distribution curves of the NIH-CPSI questionnaire (chronic prostatitis symptom index) were shifted by one hundred risk of more severe symptoms [19]. Despite the widespread classification NIH NIDDK, it is not universally used with nanna. Newer classification principle UPOINT based on the clinical phenotype of CP/CPPS with forecasts for improvement of patients' condition due to treatment and management of the disease. UPOINT decryption- It is known as urinary (Urinary), psychosocial (Psychosocial), organocentric (Organ-centric), infectious onic (Infection), neurogenic/systemic (Neurogenic/ systemic), pain (Tenderness) [2, 14, 20]. This system used to classify CP/CPPS to determine their unique clinical phenotype for further choice of therapy. It is shown that the number positive UPOINT domains are strictly correlated with the severity and duration of prostatitis symptoms, assessed by the NIH-CPSI. Application of classification UPOINT and identification of the clinical phenotype of CP/CPPS patients allow the use of multimodal pathogenetic therapy for each of the 6 definitions domains, which, according to several unassigned dependent research leads to significant reducing the severity of clinical symptoms in 75–84% of patients [3, 14, 20]. "Although there is no "gold standard" of treatment, interdisciplinarity approach in multimodal therapy yes- There is no chance for a patient with CP/CPPS to relieve symptoms ," writes S. R. Smith [2].

Diagnosis of chronic prostatitis

Diagnosis in patients with suspected prostatitis should be carried out in accordance with the algorithm recommended by the Russian Society of Urology [1], European Urological Association [5] and the Standard of Primary Health Care for CP (Appendix to the order of the Ministry of Health of Russia dated 09.11.2012 No. 775n) [21].

Clinical examination includes analysis of the patient's condition using the NIH-CPSI questionnaire, which allows you to assess the characteristics of pain (localization, intensity, frequency and duration) and LUTS (obstructive, associated with urination, and irritant, associated with storage urine), as well as the presence of other symptoms (increased

temperature, other pain syndromes) and the impact these symptoms on functioning and quality of life (GR: B). It is necessary to find out the presence of concomitant diseases of other body systems, a history of past diseases, operations (especially urological) and injuries, medicinal therapy and allergies. Specific diseases with similar symptoms should be excluded (GR: A).

Use of the NIH-CPSI questionnaire allows the patient to describe to the healthcare provider their perception of the intensity of pain or symptoms. Scale The NIH-CPSI is also used to measure changes symptoms over time and assessing the effectiveness of treatment [1, 2, 4, 12, 13]. It is advisable to screen patients for anxiety levels or stress using a psychological yellow flag system and/or assessment questionnaire Patient Health Questionnaire (PHQ-9) and/or Generalized Anxiety Disorder Questionnaire (GAD-7) [4].

According to the EAU Guidelines, laboratory tests for prostatitis include [5]:

- general analysis and urine culture;
- exclusion of sexually transmitted infections by (*C. trachomatis*, *U. urealyticum*, *M. hominis*, etc.);
- uroflowmetry and determination of residual urine;
- 4-glass sample (according to E. M. Meares and T. A. Stamey);
- microscopy of pancreatic secretion or the first portion urine obtained after pancreatic massage;
- cultural studies of pancreatic secretions, urine, obtained after massage of the pancreas, and/or sperm.

The inoculated bacterial strain is considered the causative agent of the disease if the concentration of colonies is forming units in pancreatic secretions or urine, obtained Noah after massage of the pancreas, exceeds the concentration in the middle or first portion of urine 10 or more times [5, 12, 13].

Ultrasound examination is not included in the recommendations date of the EAU Guidelines, however, publications of the latest years indicate that it allows [8, 22, 23]:

- obtain information about the presence of fibrosis and calcification of the pancreas, which is important to consider during treatment;
- diagnose drainage dysfunction seminal vesicles, which is often associated with pain symptoms;
- establish circulatory disorders in the pancreas and the small pelvis, playing a significant role in patogenesis of CP/CPPS;
- identify lesions suspicious in terms of malignancy; (simultaneous determination of the level of prostatic specific antigen is important for patients over 50 years of age with potentially increased increased risk of pancreatic cancer).

Specialists of the EAU working group chaired by M. Grabe emphasizes that diagnostics prostatitis should not contain a minimum set differential diagnostic examination [5]. An experienced urologist decides which tests are important for each specific patient. An integral part differential diagnosis can be considered a test treatment with antibiotics if signs are present inflammation.

Conclusions

- Prostatitis is a polyetiological disease. Gathering These symptoms may be caused by inflammation in the pancreas and other reasons (vascular, neurological, psychosocial, etc.).

- Diagnosis of CP should be based on interdisdisciplinary approach with the involvement of specialists of various specialties: urologists, neurologists, therapists, psychiatrists, etc. When choosing treatment tactics must be based on traditional NIH NIDDK classification of prostatitis, but a more modern classification

UPOINT allows you to achieve better results.

- Treatment is best carried out simultaneously in several in various ways, aimed at various aspects of the patient's condition. Treatment options for CP include a wide range of medicines and non-medicinal effects: antibiotics, alpha blockers, M-anticholinergics, analgesics, muscle relaxants, antidepressants, herbal medicines you, psychological counseling, acupunpelvic floor therapy and physiotherapy.

- Further research is needed to better to find out the possibilities of therapy for various forms of CP.

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