available at www.sciencedirect.com
journal homepage: www.europeanurology.com

European Association of Urology

Platinum Priority – Collaborative Review – Pelvic Pain

Editorial by Thomas M. Kessler on pp. 298–299 of this issue

Contemporary Management of Chronic Prostatitis/Chronic Pelvic Pain Syndrome

Giuseppe Magistro[a,*], *Florian M.E. Wagenlehner*[b], *Magnus Grabe*[c], *Wolfgang Weidner*[b], *Christian G. Stief*[a], *J. Curtis Nickel*[d]

[a] *Department of Urology, Campus Großhadern, Ludwig-Maximilians-Universität München, Munich, Germany;* [b] *Clinic for Urology, Pediatric Urology and Andrology, Justus-Liebig-University Giessen, Giessen, Germany;* [c] *Department of Urology, Skåne University Hospital, Malmö, Sweden;* [d] *Department of Urology, Queen's University, Kingston, Ontario, Canada*

Article info

Article history:
Accepted August 31, 2015

Associate Editor:
James Catto

Keywords:
Chronic prostatitis
Chronic pelvic pain syndrome
Monotherapies
Phenotypically directed multimodal management

EU ✱ ACME
www.eu-acme.org/europeanurology

Please visit www.eu-acme.org/europeanurology to read and answer questions on-line. The EU-ACME credits will then be attributed automatically.

Abstract

Context: Chronic prostatitis/chronic pelvic pain syndrome (CP/CPPS) is a common condition that causes severe symptoms, bother, and quality-of-life impact in the 8.2% of men who are believed to be affected. Research suggests a complex pathophysiology underlying this syndrome that is mirrored by its heterogeneous clinical presentation. Management of patients diagnosed with CP/CPPS has always been a formidable task in clinical practice. Due to its enigmatic etiology, a plethora of clinical trials failed to identify an efficient monotherapy.
Objective: A comprehensive review of published randomized controlled trials (RCTs) on the treatment of CP/CPPS and practical best evidence recommendations for management.
Evidence acquisition: Medline and the Cochrane database were screened for RCTs on the treatment of CP/CPPS from 1998 to December 2014, using the National Institutes of Health Chronic Prostatitis Symptom Index as an objective outcome measure. Published data in concert with expert opinion were used to formulate a practical best evidence statement for the management of CP/CPPS.
Evidence synthesis: Twenty-eight RCTs identified were eligible for this review and presented. Trials evaluating antibiotics, α-blockers, anti-inflammatory and immune-modulating substances, hormonal agents, phytotherapeutics, neuromodulatory drugs, agents that modify bladder function, and physical treatment options failed to reveal a clear therapeutic benefit. With its multifactorial pathophysiology and its various clinical presentations, the management of CP/CPPS demands a phenotypic-directed approach addressing the individual clinical profile of each patient. Different categorization algorithms have been proposed. First studies applying the UPOINTs classification system provided promising results. Introducing three index patients with CP/CPPS, we present practical best evidence recommendations for management.
Conclusions: Our current understanding of the pathophysiology underlying CP/CPPS resulting in this highly variable syndrome does not speak in favor of a monotherapy for management. No efficient monotherapeutic option is available. The best evidence-based management of CP/CPPS strongly suggests a multimodal therapeutic approach addressing the individual clinical phenotypic profile.
Patient summary: Chronic prostatitis/chronic pelvic pain syndrome presents a variable syndrome. Successful management of this condition is challenging. It appears that a tailored treatment strategy addressing individual patient characteristics is more effective than one single therapy.

* Corresponding author. Department of Urology, Campus Großhadern, Ludwig-Maximilians-Universität München, Marchioninistraße 17, München, 81377 Germany.
E-mail address: giuseppe.magistro@med.uni-muenchen.de (G. Magistro).

http://dx.doi.org/10.1016/j.eururo.2015.08.061
0302-2838/

CrossMark

1. Introduction

Lower urinary tract symptoms (LUTS) and pelvic pain due to pathologies of the prostate have always considerably affected quality of life of men of all ages. Epidemiologic data suggest that the prevalence of prostatitis-like symptoms is comparable with ischemic heart disease and diabetes mellitus. The rate of prostatitis-like symptoms ranges from 2.2% to 9.7%, with a mean prevalence of 8.2% [1].

In the late 1990s, the National Institutes of Health (NIH) established a consensus definition and classification system for prostatitis [2]. It has been accepted internationally in both clinical practice and research (Table 1). Prostatitis syndromes comprise infectious forms (acute and chronic), the chronic pelvic pain syndrome (CPPS), and asymptomatic prostatitis [2]. In <10% of patients with prostatitis syndrome, a causative uropathogenic organism can be detected. An acute bacterial episode will lead to chronic bacterial prostatitis in 10% and to CPPS in a further 10% [3]. CPPS accounts for most of the prostatitis-like symptoms in >90% of men.

The National Institutes of Health Chronic Prostatitis Symptom Index (NIH-CPSI) presents an objective assessment tool and outcome measure for prostatitis-like symptoms [4,5]. The introduction of a generally accepted classification system and an objective outcome measure led to a plethora of clinical trials that made one particular point clear. Although the treatment of bacterial prostatitis obviously relies on the adequate use of antimicrobial agents, successful management of CPPS has always been a formidable task. The complex and heterogeneous pathophysiology of CPPS is poorly understood. Consequently, an effective monotherapy is not available, which makes the management of CPPS challenging for both physicians and patients. Clinical trials were not able to identify a monotherapy with significant clinical efficacy. A meta-analysis evaluating data of randomized controlled trials (RCTs) using the NIH-CPSI as a common outcome measure failed to derive a guideline statement on the treatment of this bothersome condition [6,7].

The dilemma of limited success of clinical trials prompted us to provide a comprehensive review with expert interpretations of the available literature to formulate best practice recommendations. Introducing index patients diagnosed with CPPS, we demonstrate how these recommendations might be applied in clinical practice. The main objective of this review is to present best practice recommendations for the management of CPPS (NIH type III).

Table 1 – National Institutes of Health classification system for prostatitis syndromes

Category	Nomenclature
I	Acute bacterial prostatitis
II	Chronic bacterial prostatitis
III	Chronic prostatitis/chronic pelvic pain syndrome
IIIA	Inflammatory
IIIB	Noninflammatory
IV	Asymptomatic prostatitis

2. Evidence acquisition

2.1. Search strategy

We performed a systematic review of the literature in the PubMed and Cochrane database according to the Preferred Reporting Items for Systematic Reviews and Meta-analysis statement [8]. We searched for RCTs and meta-analyses on the treatment of chronic prostatitis CP/CPPS from January 1988 to December 2014. A detailed description of the search strategy is presented in Supplementary Table 1 and Supplementary Figure 1. In addition, references of review articles were screened for possibly missed articles.

2.2. Inclusion criteria

RCTs published in English were selected if they met the following criteria: (1) RCTs (comparisons; placebo or sham controlled; no invasive procedures), (2) patients were classified as CP category IIIA or IIIB according to the NIH consensus definition, (3) at least 10 individuals were evaluated per treatment arm, and (4) the NIH-CPSI score was utilized as an outcome measure for CP/CPPS. Articles were first reviewed independently by two authors to determine their eligibility for inclusion. With consensus the article moved on to the next round, and if the first two reviewers disagreed, a third reviewer was included to reach unanimous agreement (Fig. 1).

2.3. Interpretation of data

The systematic literature review revealed 28 RCTs for the therapy of CPPS eligible for inclusion. Two performed meta-analyses published in the last 4 yr on this subject [6,7] were not able to provide any relevant useful information for clinical practice. We realized that no significant clinical data from recently published RCTs could be included since the last meta-analyses were performed (Supplementary Table 1, Supplementary Fig. 1). Another attempt to evaluate the available clinical data would add nothing to the literature and not provide any more guidance to practicing urologists. Consequently, we present the available literature on treatment modalities to outline the scientific dilemma and formulate best practice statements that used published data in concert with expert opinion. This does not use formal meta-analysis. We attempted to outline the complete management of CPPS including diagnostic assessment and treatment.

The introduction of index patients demonstrates how to implement the presented recommendations in clinical practice. After the conception of each index patient, the relevant symptoms were identified and treatment options were discussed. For this purpose, every author received the different case presentations and independently analyzed symptoms, treatment targets, and therapeutic options. The results were returned to G.M., who collected responses and