

The Management of Chronic Prostatitis



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Chronic bacterial prostatitis (CBP) is a diagnosis made after identification of pathogenic bacteria in prostatic fluids (urine, semen, expressed prostatic fluid) and is often associated with symptoms such as pain in the pelvic, suprapubic, low back, or perineal regions. CBP may also be associated with irritative and/or obstructive voiding symptoms such as dysuria and increased urgency and frequency of urination. By definition, bacterial prostatitis is “chronic” when symptoms last for more than six months.¹

This constellation of symptoms is similar to that of chronic abacterial prostatitis/chronic pelvic pain syndrome (CP/CPPS) and can only be differentiated by the identification of bacteria in prostatic fluids. Although “chronic prostatitis” is the most commonly diagnosed urologic diagnosis under the age of 50 and up to 10% of men in North America have these symptoms, < 5% truly have a bacterial cause of their symptoms.²

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William’s case

William, 40, presents with pain in his perineal region that has become progressively worse in the past 9 months. The pain is a dull ache that appears to radiate to the tip of his penis.

History

William’s pain is also associated with reduced flow, urinary urgency and frequency of every 3 hours and nocturia 3 times per night. He has no other systemic symptoms such as fever or chills. He is otherwise healthy and is not on any medications.

Examination

On physical exam, external genitalia and perineal examination shows no obvious abnormalities. Digital rectal examination reveals a normal sized prostate of normal consistency and no nodularity. However, palpation of the prostate causes mild pain.

1. What is your diagnosis?
2. What investigations would you arrange?
3. What would be the appropriate management?

For answers to these questions, see page 77.

Table 1

Causes of bacterial prostatitis

- *Escherichia coli*
- *Klebsiella* species
- *Enterobacter* species
- *Proteus* species
- *Pseudomonas* species
- *Enterococcus faecalis*

Etiology

Organisms commonly implicated in CBP include Gram-negative bacteria, such as *Escherichia coli*, occasionally *Pseudomonas* species and rarely Gram-positive *enterococci* (Table 1). Risk factors for bacterial prostatitis include urinary outlet obstruction, urethral catheterization/instrumentation, condom drainage, dysfunctional voiding (high pressure urination), outflow obstruction such as benign prostatic hyperplasia and unprotected anal intercourse.

The cause of CP/CPPS is unclear, although dysfunctional voiding, intraprostatic ductal reflux, immunologic alterations, inflammation, hormonal imbalances, pelvic floor muscle tension and psychological disturbances have all been implicated as potential causes (Table 2).³ CP/CPPS most likely has a multifactorial etiology, either a spectrum of etiologic mechanisms or a cascade of events after some initiating factor.³

A history of fever and chills associated with dysuria and obstructive voiding symptoms suggest an acute bacterial prostatitis.

Diagnosis

Key components of the clinical evaluation are the:

- history,
- physical examination,
- urinalysis and
- urine culture.

Table 2

Potential causes of chronic abacterial prostatitis/chronic pelvic pain syndrome (CP/CPPS)

- Dysfunctional voiding
- Intraprostatic ductal reflux
- Immunologic alterations
- Hormonal imbalances
- Pelvic floor muscle tension
- Psychological disturbances

Table 3

Location of pain associated with CP/CPPS

- Perineal
- Penile
- Testicular
- Rectal
- Lower abdominal
- Low back

A history of fever and chills associated with dysuria and obstructive voiding symptoms suggest an acute bacterial prostatitis. Physical exam is important to rule out other prostatic, perineal, or scrotal problems (such as acute prostatitis or orchitis). Generally, the digital rectal examination in CP/CPPS reveals a normal feeling prostate but may be tender to palpation.

A thorough search to exclude an infectious source is also important. This may involve repetitive urinalysis and urine culturing, screening for gonorrhea and chlamydia and also microscopic analysis and culturing of urine after prostate massage or of secretions from prostatic massage fluid (Table 4).

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Table 4

Evaluation of a patient with “chronic prostatitis”

- Mandatory:
 - History
 - Physical examination
 - Urinalysis
 - Urine culture
- Optional:
 - Screening for STDs (gonorrhea and chlamydia)
 - Microscopic analysis and culturing of urine after prostate massage
 - Microscopic analysis and culturing of secretions from prostatic massage fluid
 - Urine cytology
 - Transrectal ultrasound
 - Cystoscopy

Table 5

Treatments of CP/CPPS

- α -adrenergic antagonist
- NSAIDs
- Repetitive prostatic massage
- Perineal/pelvic floor muscle relaxation
- Biofeedback
- Acupuncture
- 5- α -reductase inhibitors

Treatment for CP/CPPS is challenging and strategies are primarily based on symptomatic control.

Urine cytology may be helpful for those patients with significant irritative voiding symptoms to assess for tumours and carcinoma-*in situ* of the bladder. Transrectal ultrasound and cystoscopy are usually not helpful, but may be used in men who are refractory to standard treatment.

Treatment

CBP

Patients with isolated bacterial pathogens will benefit from oral antimicrobial drugs. Clinical success rates from oral antimicrobials have reached up to 80% at six months in studies comparing different regimens.⁴ Trimethoprim-sulfamethoxazole and quinolones such as ciprofloxacin are most commonly used and seem to be the most beneficial. α -adrenergic antagonists and NSAIDs may also aid in reducing symptoms.

CP/CPPS

Treatment for CP/CPPS is challenging and strategies are primarily based on symptomatic control. Although many physicians begin with a treatment course of two to four weeks of antibiotics empirically, recent randomized controlled trials suggest that prolonged antibiotics are no more beneficial than placebo.³ Certainly, antibiotic therapy should be stopped in those with CP/CPPS who have already had a prolonged course of antibiotic therapy.³ α -adrenergic antagonists (tamsulosin, alfuzosin, terazosin) appear to have the greatest benefit in men with CP/CPPS but only provide a moderate benefit.³ NSAIDs may improve quality of life and symptoms compared with no

More on William

Diagnosis and investigations

William has a history and physical examination consistent with either chronic bacterial or CP/CPPS. Primary investigations will involve a urinalysis and urine culture. If these are negative and symptoms persist, STD screening and urine testing post-prostatic massage, as well as analysis of the expressed prostatic secretions, may also identify bacterial pathogens.


Management

Antibiotic therapy is only indicated if bacterial pathogens are identified. Management of CP/CPPS is often challenging, but may begin with initiation of an α -adrenergic antagonist for a trial of 2-4 weeks. NSAIDs may be added to reduce pain. If this initial approach is unsuccessful, alternative regimens may include physiotherapy for pelvic floor relaxation, biofeedback, prostatic massage and 5- α -reductase inhibitors may be considered alone or in combination.

- Less than 5% of men with “chronic prostatitis” have bacteria identified in urine/prostatic secretions
- Diagnostic evaluation of CP/CPPS centers around a thorough screening for bacterial infection
- Treatment for CP/CPPS is challenging and strategies are primarily based on symptomatic control and may involve multimodal therapy

treatment, but data supporting their use have been limited. Other treatments that have been shown to have modest benefit and are currently being investigated include:

- 5- α -reductase inhibitors,
- repetitive prostatic massage,
- perineal/pelvic floor muscle relaxation,
- biofeedback and
- acupuncture (Table 5).

Often, multimodal therapy is required to achieve symptomatic improvement. 

References

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