

DEFINITION

1. **Prostatitis** is the term used for inflammation of the prostate gland, which is situated at the base of the bladder surrounding the urethra. It may be acute or chronic and, in most cases, is not associated with infection.
2. The **common forms** are:
 - 2.1 Acute bacterial prostatitis
 - 2.2 Chronic bacterial prostatitis
 - 2.3 Non-bacterial prostatitis, which is the **commonest type**
 - 2.4 **Prostatodynia** is pain in the prostate without evidence of inflammation.

CLINICAL MANIFESTATIONS**Acute bacterial prostatitis**

3. The symptom complex comprises the acute onset of various combinations of malaise, fever with frequency, dysuria (painful micturition), urgency, haematuria (blood in the urine), perineal and/or rectal pain, low backache and tenesmus (painful straining to pass urine or faeces). Acute retention may also occur.
4. On rectal examination, the prostate is hot, swollen and tender. The prostatic fluid is purulent and contains pathogenic bacteria. Bacteria may also be found in the urine and there may be an associated cystitis.
5. Response to treatment is usually prompt, unless a prostatic abscess has formed, but this is an uncommon complication.

Chronic bacterial prostatitis

6. The hallmark is relapsing, recurrent urinary tract infection caused by the same pathogen persisting in the prostatic fluid, often despite treatment. Even between relapses, the fluid is purulent and contains pathogenic bacteria, but without symptoms of urinary infection or systemic signs of infectious illness. Presenting symptoms include frequency, urgency, dysuria and genital, perineal or low back pain. Sometimes there is urethral discharge. Fever and chills are unusual.
7. Antibacterial therapy has to be prolonged. Radical surgery, carrying significant risk of serious complications, is necessary in a small proportion of refractory cases.

Non-bacterial prostatitis

8. This is the most frequently encountered prostatitis syndrome. The symptoms mimic those of the chronic bacterial type, **except** that there is no relapsing urinary infection. There are inflammatory cells in the prostatic fluid, but no uropathogenic bacteria, although other organisms may be present. Treatment can be problematic as the cause is usually obscure.

Prostatodynia

9. The typical patient is a young to middle aged man with symptoms of urgency, dysuria, and poor flow. There is usually perineal or pelvic pain, often aggravated by activity, sitting or stress. The symptoms resemble those of non-bacterial prostatitis. The important distinction is that the prostatic fluid is normal.
10. Treatment is symptomatic, with no place for antibiotics.

AETIOLOGY

Acute bacterial prostatitis

11. The causal organisms are those generally involved in urinary tract infections, urethritis, cystitis and pyelonephritis, which in the vast majority of cases, ascend the urethra from the exterior. The commonest is *E.coli* (about 56%) but it may also be caused by *klebsiella* (about 20%), *Enterobacter*, *Pseudomonas* or other Gram-negative uropathogens including gonococcus. Except by enterococci and (rarely) *S.aureus*, Gram-positive infection is unlikely.
12. The probable route of infection into the prostate is via the urethra, facilitated by reflux of urine into the prostatic ducts. Urethral instrumentation or catheterisation may introduce infection and bladder outflow obstruction is a predisposing factor and so is poor hygiene. There is evidence that transmission can be sexual, identical bacteria having been found in sexual partners. The possible roles of haematogenous (blood-borne into the prostate from remote sites) infection and direct extension of infection from the rectum are now regarded as speculative.

Chronic bacterial prostatitis

13. This is usually a sequel of inadequately treated acute bacterial prostatitis.
14. Chronic **tuberculous prostatitis** is usually associated with systemic tuberculous infection, but is not a frequent complication. The infection is believed to be blood-borne, rather than reaching the prostate from higher in the urinary tract.
15. Normal prostatic fluid contains an antibacterial factor, the concentration of which is low in cases of chronic bacterial prostatitis, but it is not known whether this is something predisposing to prostatitis or a result of infection.

Non-bacterial prostatitis

16. This condition resembles chronic bacterial prostatitis in its symptomatology but, in the majority of cases, there is no identifiable cause.

17. Trichomonas is believed by some authorities to be one cause of non-bacterial prostatitis. The organism is likely to be present in sexual partners.
18. The possible roles of Chlamydia, Ureaplasma, and other fastidious organisms are disputed.
19. **Parasitic prostatitis** is rare in the western world. Schistosomiasis (Bilharziasis), endemic in parts of the Middle East, Africa, the Orient and Latin America is the parasitic disease most likely to cause prostatitis. The eggs of the trematode, which enters the body by skin penetration, pass through body tissues and lodge in the prostate, causing a granulomatous reaction.
20. **Mycotic infections** such as actinomycosis and cryptococcosis have been identified as causing prostatitis, usually in immuno-suppressed patients.

Prostatodynia

21. The symptoms of Prostatodynia are real and often disabling. In most cases, urodynamic studies show reduced flow and muscle spasm in the prostatic urethra, but the cause is unknown.

CONCLUSION

22. **Prostatitis** is an inflammation of the prostate gland which may be acute or chronic due to infection or infestation. In its commonest form, it has no identifiable cause and may be a non-infectious inflammatory disorder or be caused by a yet unidentified organism.
23. **Prostatodynia** is not associated with infection or inflammation of the prostate. It is regarded as an acquired functional abnormality of uncertain cause.

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