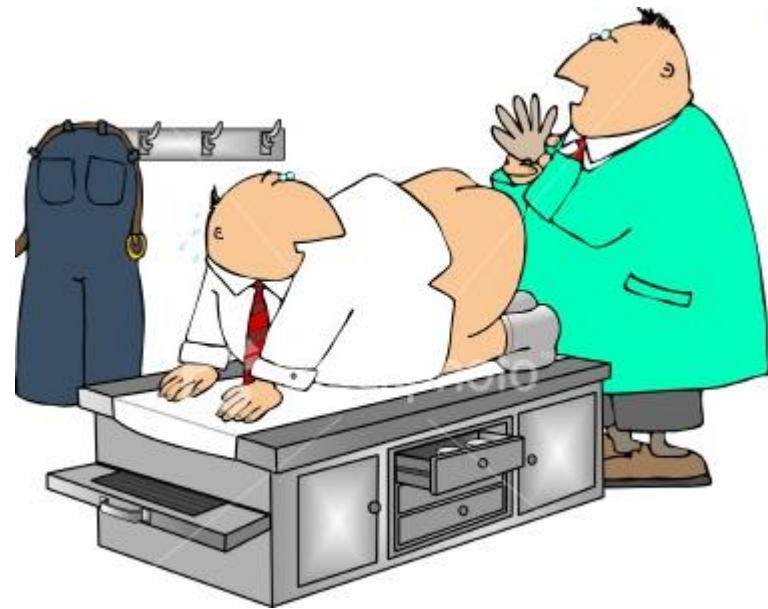


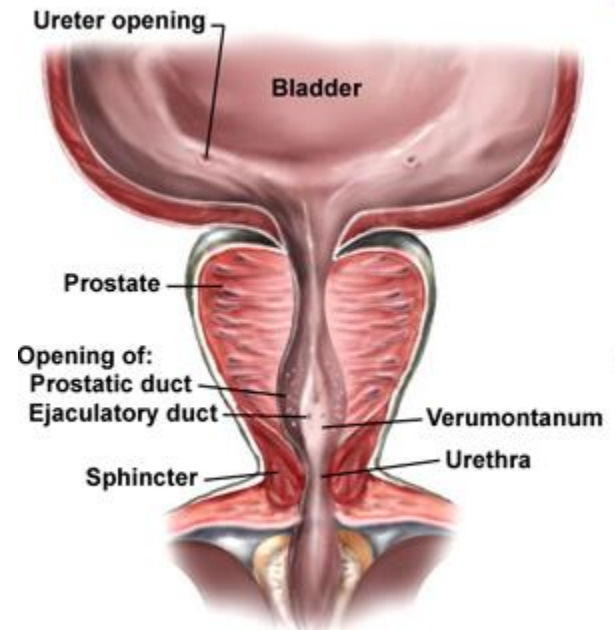
Prostatitis



By Dor Golomb

The Prostate:

The prostate is located at the base of the bladder and wrapped around the urethra. It sits in front of the rectum, and the posterior portion of the organ can be felt during rectal digital examination.



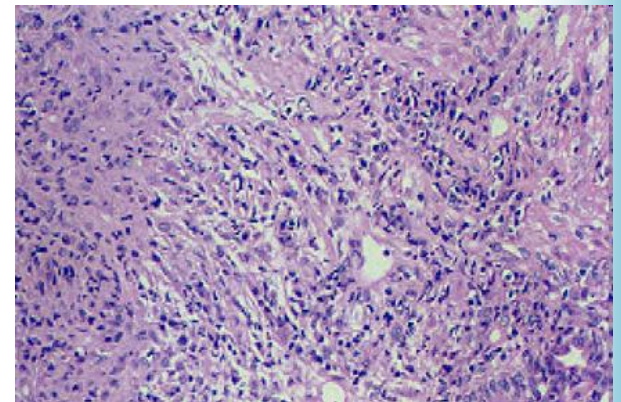
Functions of the prostate:

The prostate's purpose is to help with the male reproductive system:

1. It makes up to *70% of the fluid that is ejaculated during intercourse.*
2. *Mixing its secretions* with the sperm.
3. The prostate also *contracts* at the time of ejaculation to *prevent retrograde flow of semen into the bladder.*

What is prostatitis?

Prostatitis is an ***infection or inflammation of the prostate gland*** that presents as several syndromes with varying clinical features. The term prostatitis is defined as ***microscopic inflammation of the tissue of the prostate gland***, which spans a broad range of clinical conditions.



Pathophysiology of prostatitis:

- In bacterial prostatitis, **sexual transmission** of bacteria is common, but **hematogenous, lymphatic**, and spread of infection from **surrounding structures**.
- A history of **sexually transmitted diseases** is associated with an increased risk for prostatitis symptoms.
- Prostatitis symptoms may increase a man's risk for **BPH**, lower **urinary tract symptoms**, and **prostatic cancer**.

Susceptible patients:

- 1. Diabetes mellitus.**
- 2. Patients on dialysis for chronic renal failure.**
- 3. Immunocompromised.**
- 4. Postsurgical patients who have had urethral instrumentation.**

Types of prostatitis:

1. **Acute bacterial prostatitis** – seen mostly in young men or elderly with catheters. Gram – bacteria (E-Coli, Klebsiella, N. Gonorrhea).
2. **Chronic bacterial prostatitis** – infrequent. Chronic due to poor penetration of antibiotics into prostate. No sym. between episodes.
3. **Chronic pelvic pain syndrome (CPPS)** – Prostatitis symptoms + Low back pain + Obstructive voiding symptoms. Pathogen unknown. Seen in young sexually active men – may be an STD (Cla. Trachomatis, U. Urealyticum).
4. **Viral/ Fungal** – seen mainly in HIV patients. Causative agents are CMV and Candida Albicans.

Symptoms of prostatitis:

Acute prostatitis: Acute onset of fever, chills, dysuria, urgency. Prostate is tender and tense.

Chronic prostatitis: Recurrent UTI's, obstructive symptoms and perineal pain.

CPPS: Low back pain + Perineal pain + Recurrent NGU.

Diagnosis of prostatitis:

Acute:

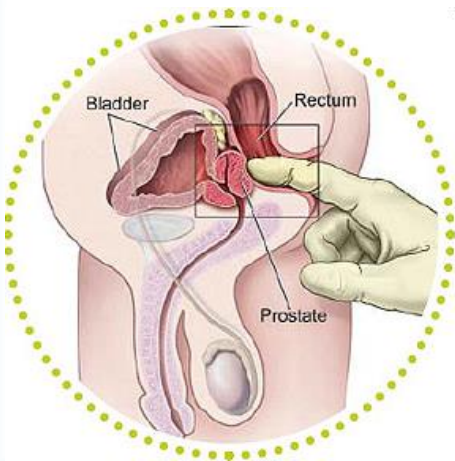
1. Pyuria, Bacteruria (Gram – stain)
2. Massage produces purulent secretions**
3. Tender, nodular, hot, normal-feeling gland on digital rectal examination.
4. Urinary retention.

Chronic:

- Mid-stream urine culture
- Post massage urine specimen (culture and WBC number).
- Tender, nodular, or normal gland on digital rectal examination.

CPPS:

1. Show few signs on examination and **no** bacterial growth in cultures and **no** history of recurrent episodes of bacterial prostatitis.
2. Mildly tender or normal prostate on digital rectal examination.
3. Tight anal sphincter on digital rectal examination.



****Complication of prostatic massage:**

Prostate massage can cause complications if performed in cases of acute prostatitis as it can contribute to *spreading the infection* to the **epididymis** or, even more dangerous, in the **blood** resulting in **septicemia**.

It has been said, that when performing a rectal digital exam on an acute bacterial prostatitis patient, we should have a crash cart close by.

Complications of prostatitis:

1. Abscess formation.
2. Seminal vesiculitis
septicemia.
3. Chronic bacterial
prostatitis.



Frequency of prostatitis:

In the US it accounts for nearly **2 million outpatient visits per year**, with chronic bacterial prostatitis and chronic pelvic pain syndrome being most frequently diagnosed. The diagnosis of prostatitis is made in approximately **25% of male patients presenting with genitourinary symptoms.**

Autopsy studies have revealed a histologic prevalence of prostatitis of 64-86%.

Approximately **8.2% of men have prostatitis at some point in their lives.**

Treatment of prostatitis:

Acute: IV Fluroquinolone or 3rd generation Cephalosporin.

Chronic: 12 weeks of Fluroquinolones. Transurethral prostatetctomy.

CPPS: 4-5 weeks of oral Macrolids.

Conclusions:

Prostatitis is more common than we think!

We should remember it as a differential diagnosis in young sexually active men that complain of recurrent urethritis, and in men in the different susceptible groups.

