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**COURSE: MEDICAL SURGERY**  
**DEPARTMENT: NURSING SCIENCE**

**ASSIGNMENT**

**QUESTIONS**

READ ABOUT THE MALE REPRODUCTIVE SYSTEM AND SUMMARISE ON;

* The different disorders of the prostrate
* Their aetiologies
* The therapeutic interventions as well as surgeries
* The nursing care and client teaching in the different conditions

**ANSWERS**

**-THE MALE REPRODUCTIVE SYSTEM**

The **male reproductive system** consists of a number of SEX ORGANS that play a role in the process of HUMAN REPRODUCTION. These organs are located on the outside of the body and within the PELVIS.

The main male sex organs are the PENIS and the TESTICLES which produce SEMEN and SPERM which, as part of SEXUAL INTERCOURSE, FERTILISE an OVUMin the female's body; the fertilised ovum (ZYGOTE) develops into a FOETUS, which is later born as an INFANT.

**-DEFINITION OF PROSTRATE**

A gland surrounding the neck of the bladder in male mammals and releasing a fluid component of semen.

**-DISORDERS OF THE PROSTRATE**

. Around 25 per cent of men aged 55 years and over have a prostate condition. This increases to 50 per cent by the age of 70 years. Early stages of prostate disease may have no symptoms.

. The three most common forms of prostate disease are inflammation (PROSTATITIS), non-cancerous enlargement of the prostate (BENIGH PROSTATIC HYPERPLASIA, or BPH) and PROSTRATE CANCER. A man may experience one or more of these conditions.

**Inflammation of the prostate (prostatitis)**

While prostatitis can affect men of any age, it is more common in younger men, aged between 30 and 50 years. The main types of prostatitis are:

* bacterial prostatitis – acute or chronic bacterial infection
* non-bacterial prostatitis – inflamed prostate, also known as chronic pelvic pain syndrome (CPPS).

In most cases, the cause of prostatitis is unknown. Bacterial prostatitis responds well to antibiotic drugs that can get into the prostate.

**Non-bacterial prostatitis, or CPPS, is the most common form of prostatitis and is more difficult to manage. Symptoms vary from one man to another. There is no single test to diagnose CPPS, so your doctor will need to rule out other possible causes of your symptoms before making a diagnosis.**  
  
**Possible causes of CPPS include:**

* a past bacterial prostatitis infection
* irritation from some chemicals
* a problem with the nerves connecting the lower urinary tract
* problems with pelvic floor muscles
* sexual abuse
* chronic anxiety problems.

**Symptoms**

Prostatitis signs and symptoms depend on the cause. They can include:

* Pain or burning sensation when urinating (dysuria)
* Difficulty urinating, such as dribbling or hesitant urination
* Frequent urination, particularly at night (nocturia)
* Urgent need to urinate
* Cloudy urine
* Blood in the urine
* Pain in the abdomen, groin or lower back
* Pain in the area between the scrotum and rectum (perineum)
* Pain or discomfort of the penis or testicles
* Painful ejaculation
* Flu-like signs and symptoms (with bacterial prostatitis)

**THERAPEUTIC INTERVENTIONS**

**Treatment**

Prostatitis treatments depend on the underlying cause. They can include:

* **Antibiotics.** Taking antibiotics is the most commonly prescribed treatment for prostatitis. Your doctor will choose your medication based on the type of bacteria that might be causing your infection.  
  If you have severe symptoms, you might need intravenous (IV) antibiotics. You'll likely need to take oral antibiotics for four to six weeks but might need longer treatment for chronic or recurring prostatitis.
* **Alpha blockers.** These medications help relax the bladder neck and the muscle fibers where your prostate joins your bladder. This treatment might ease symptoms, such as painful urination.
* **Anti-inflammatory agents.** Non-steroidal anti-inflammatory drugs (NSAIDs) might make you more comfortable.

**Surgery is usually not indicated for chronic prostatitis.**

**NURSING CARE AND CLIENT TEACHING TOWARDS PROSTATITIS**

* Nurse should ensure to keep records from stents and catheter separate.
* Nurses should secure stents and catheter to prevent displacement.
* Vital signs for signs of infection.
* Control pain.
* Discharge Teaching; prevention of UTI, importance of taking all antibiotics, continue taking antiseptics even when no symptoms.

**Self-care:**

* Prostate massage may be used to treat chronic prostatitis. It can help to decrease fullness and prevent infection. Healthcare providers may teach you how to do a prostate massage.
* Place a heating pad on the prostate area to help blood flow to that area. Warm baths may decrease prostate fullness and discomfort.
* Drink plenty of liquids to prevent dehydration. Ask your healthcare provider how much liquid to drink each day and which liquids are best for you.
* Do not drink alcohol or eat spicy foods until you have finished treatment for prostatitis. Limit the amount of caffeine you drink.
* Urinate often. Do not wait to urinate.
* You may have sex if you feel well.
* Go to a healthcare provider for a prostate exam once every year if you are over the age of 40.

**Non-cancerous enlargement of the prostate (BPH)**

Non-cancerous enlargement of the prostate, or benign prostatic hyperplasia (BPH), is more common as men get older. It is not life threatening, but can significantly affect your quality of life.

The enlargement of the prostate gland (which surrounds the top of the urethra) causes the urethra to narrow, and puts pressure on the base of the bladder. This can lead to obstruction (blockage) in the flow of urine.

Obstructions usually show up as lower urinary tract symptoms that sometimes result in the urine staying in the bladder when it's supposed to be released. When this happens suddenly, it's called acute urinary retention. This is very painful and is usually relieved temporarily by inserting a thin tube (a catheter) to release the urine.

Chronic (ongoing) retention, which is less common, can lead to a dangerous, painless accumulation of urine in the bladder. An uncommon form of chronic urinary retention is associated with high bladder pressures, which can damage kidney function.

**BPH causes**

BPH is considered a normal condition of male ageing, and many men older than 80 years have BPH symptoms. Although the exact cause is unknown, changes in male sex hormones that come with ageing may be a factor. Any family history of prostate problems or any abnormalities with your testicles may raise your risk of BPH. Men who’ve had their testicles removed at a young age don’t develop BPH.

**BPH symptoms**

The symptoms of BPH are often very mild at first, but they become more serious if they aren’t treated. Common symptoms include:

* incomplete bladder emptying
* nocturia, which is the need to urinate two or more times per night
* dribbling at the end of your urinary stream
* incontinence, or leakage of urine
* the need to strain when urinating
* a weak urinary stream
* a sudden urge to urinate
* a slowed or delayed urinary stream
* painful urination
* blood in the urine

**THERAPEUTIC INTERVENTIONS**

**BPH DRUGS**

1. **Alpha-1 blockers**

Alpha-1 blockers are medications that relax the muscles of the bladder and prostate. Alpha-1 blockers relax the neck of the bladder and make it easier for urine to flow. Examples of alpha-1 blockers include:

* doxazosin
* prazosin
* alfuzosin
* terazosin
* tamsulosin

1. **Hormone reduction medications**

Medications that reduce the levels of hormones produced by the prostate gland such as dutasteride and finasteride are commonly prescribed. These are two medications that lower the levels of testosterone. Sometimes, lowering the hormone levels will make the prostate get smaller and improve urine flow. However, these medications may also lead to undesired side effects such as impotence and a decreased sex drive.

1. **Antibiotics**

Antibiotics may be used if your prostate becomes chronically inflamed from bacterial prostatitis related to BPH. Treating bacterial prostatitis with antibiotics may improve your symptoms of BPH by reducing the inflammation. However, antibiotics won’t help prostatitis or inflammation that is not caused by bacteria.

**SURGICAL INTERVENTION**

1. **Outpatient procedures**

Outpatient procedures involve inserting an instrument into your urethra and into the prostate gland. They include:

* Transurethral needle ablation (TUNA): Radio waves are used to scar and shrink prostate tissue.
* Transurethral microwave therapy (TUMT): Microwave energy is used to eliminate prostate tissue.
* Water-induced thermotherapy (WIT): Heated water is used to destroy excess prostate tissue.
* High-intensity focused ultrasonography (HIFU): Sonic energy is used to eliminate excess prostate tissue.

1. **Inpatient procedures**

* Transurethral resection of the prostate (TURP): It is the most commonly used surgical treatment for BPH. Your doctor inserts a small instrument through your urethra into the prostate. The prostate is then removed piece by piece.
* Simple prostatectomy: Your doctor makes an incision in your abdomen or perineum, which is the area behind your scrotum. The inner part of your prostate is removed, leaving the outer part. After this procedure, you may have to stay in the hospital for up to 10 days.
* Transurethral incision of the prostate (TUIP): This is similar to TURP, but your prostate isn’t removed. Instead, a small incision is made in your prostate that will enlarge your bladder outlet and urethra. The incision allows urine to flow more freely. You aren’t always required to stay in a hospital with this procedure.

**NURSING CARE AND CLIENT TEACHING TOWARDS BPH**

* Relieve acute urinary retention
* Promote comfort
* Provide information about disease process, prognosis, and treatment needs.
* Prevent complications.
* Help client deal with psychosocial concerns.

**SELFCARE**

* Take plenty of time to urinate. Try to relax.
* Try "double voiding." Urinate as much you can, relax for a few moments, and then try to urinate again.
* If dribbling is a problem, wash your penis daily to avoid skin irritation and infection.
* Avoid caffeine and alcohol. These drinks will increase how often you need to urinate. Spread your fluid intake throughout the day. If the urge to urinate often wakes you at night, limit your fluid intake in the evening. Urinate right before you go to bed.
* Many over-the-counter cold and allergy medicines can make the symptoms of BPH worse. Avoid antihistamines, decongestants, and allergy pills.

**Prostate cancer**

**Prostrate cancer** typically affects men over the age of 50 years. Around 16,000 Australians are diagnosed every year. The cause remains unknown, although advancing age and family history are known to be contributing factors.

In the early stages, the cancer cells are confined to the prostate gland. With the more aggressive types of prostate cancer, cancer cells enter the vascular and lymphatic systems early and spread to other parts of the body where they develop secondary tumours, particularly in the bones.

**AETIOLOGY**

It isn’t clear what causes prostate cancer.

Mutations in the abnormal cells' DNA cause the cells to grow and divide more rapidly than normal cells do. The abnormal cells continue living, when other cells would die. The accumulating abnormal cells form a tumor that can grow to invade nearby tissue. Some abnormal cells can also break off and spread (metastasize) to other parts of the body.

**Symptoms**

Prostate cancer may cause no signs or symptoms in its early stages.

Prostate cancer that's more advanced may cause signs and symptoms such as:

* Trouble urinating
* Decreased force in the stream of urine
* Blood in semen
* Discomfort in the pelvic area
* Bone pain
* Erectile dysfunction

**THERAPEUTIC INTERVENTIONS**

* Active surveillance
* Watchful waiting
* Radical prostatectomy
* Radiation therapy
* Hormone therapy

**SURGICAL INTERVENTION**

1. **Radical Prostatectomy for Prostate Cancer**

Radical prostatectomy involves surgically removing the entire PROSTATE GLAND and some surrounding tissue. This treatment is recommended to treat early stages of the disease.

1. **Minimally Invasive Surgery for Prostate Cancer**

Laparoscopic prostate surgery is a type of minimally invasive surgery performed with the aid of a small camera.

**NURSING CARE AND CLIENT TEACHING FOR PROSTATE CANCER**

* Encourage annual screening for prostate cancer
* Stress value of early diagnosis and treatment
* Specific problems may require special interventions after prostate surgery: bladder, spasms, erectile dysfunction, urinary incontinence, and body image disturbances associated with changes in the reproductive system

**Manage your prostate cancer:**

* **Do not smoke.** Nicotine can damage blood vessels and make it more difficult to manage your prostate cancer. Smoking also increases your risk for new or returning cancer and delays healing after treatment.
* **Limit or do not drink alcohol as directed.** Limit alcohol to 2 drinks per day. A drink is 12 ounces of beer, 1½ ounces of liquor, or 5 ounces of wine.
* **Eat a variety of healthy foods.** Healthy foods include fruits, vegetables, whole-grain breads, low-fat dairy products, beans, lean meats, and fish. Endeavour to eat foods that contain calcium and vitamin D.
* **Manage your weight.** Obesity may increase your risk for problems from prostate cancer. Limit or do not have high-calorie foods or drinks.
* **Exercise as directed.** Exercise may help you recover after treatment and may help prevent your prostate cancer from returning. Exercise can also help you manage your weight. Try to get at least 30 minutes of exercise 5 days a week, such as walking.
* **Manage incontinence.**
* **Drink liquids as directed.**

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