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MATRIC NUMBER: 16/MHS02/006

COURSE CODE: NSC 306

COURSE TITLE: MEDICAL SURGICAL NURSING

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QUESTIONS:

- 1: The different disorders of the prostate gland
2. Their aetiologies
3. The therapeutic interventions as well as surgeries
4. The nursing care and client teaching in the different conditions

ANSWERS.

The prostate gland is an organ of the male reproductive system. It is about the size of a walnut and is found in the base of the bladder. Around 25% of men aged 55 years and over have a prostate condition. This increases to 50% by the age of 70 years.

The different disorders of the prostate gland include:

Inflammation of the prostate (prostatitis)

It is an acute inflammation of the Prostate gland classified as Bacterial prostatitis (Acute or Chronic) and non-bacterial prostatitis.

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

CAUSES

- For acute Prostatitis- Bacteria such as Pseudomonas and Gram positive cocci such as streptococcus and staphylococcus

- For chronic prostatitis: Caused by bacteria such as gram-negative e.g E.coli, Websiella, pneumonia and pseudomonas aeruginosa.

The therapeutic interventions as well as surgeries

- **Medical management**
- Antimicrobial therapy 10-14 days based on sensitivity, IV may be required.
- For chronic prostatitis 4 weeks of antibiotics therapy with ability to diffuse into Prostate e.g Ciprofloxacin.
- Oral oral antispasmodic agents to relief frequency and urgency.
- Anticholinergic to relieve spasms

The nursing care and client teaching

- **Nursing care**
- Obtain history of previous urinary tract infection, Sexually transmitted infections or voiding pattern.
- Collect specimens of urine for culture and prostatic secretions.
- Start as prescribed antibiotics therapy according to results of culture and sensitivity.
- Tepid sponge and administer antipyretic when necessary.
- Keep patient well hydrated but avoid overhydration
- Administer analgesic and anti-inflammatory drugs as prescribed.
- Maintain bed rest to relief perineal and suprapubic pain.
- Health educate on the importance of completing the course of the treatment.
- Instruct on sitz bath 10-20 minutes daily.
- Void sitting for long periods of time. Advise to avoid sexual intercourse/arousal may be beneficial till cleared.
- Encourage follow-up because reoccurrence is possible.

Non-cancerous enlargement of the prostate (BPH)

Non-cancerous enlargement of the prostate, or benign prostatic hyperplasia (BPH), is more common in men of about 50 years and older. It is not life threatening, but can significantly affect your quality of life.

It is 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.

Causes

- Auto immune response
- Arteriosclerosis
- Metabolic or nutritional disturbances
- Aging
- Hormonal disturbances/activities (Decreased androgen-with increased oestrogen)
- Tumour
- Infections

The therapeutic interventions as well as surgeries

1. Major management is surgical prostatectomy or partial prostatectomy .
 - Transurethral resection (through the urethra): This is the removal of enlarged portions of the prostate by inserting the instrument (electrical cutting loop) through the urethra.
 - Suprapubic (Transversal)-Incision into bladder to remove prostate gland.
 - Perineal-Remove gland through the perineum.
 - Retropubic: Incision through lower abdominal wall
2. Conservation management include
 - Catheterization to empty bladder (for mild cases, catheterization for 2-3 days)
 - Hormonal therapy to balance oestrogen-androgen level
 - Antibiotics for infections: Some antibiotic that might be used are Trimethoprim-sulfamethoxazole, Doxycycline, Ciprofloxacin, Norfloxacin and Ofloxin.

The nursing care and client teaching

- **Specific pre-operative care**
 - Observe all general pre-operative care
 - Allay patient's fear, anxiety.
 - Explain the type of the surgery
 - Pre-operative care care; Shaving, indwelling catheter.
 - Consent, intravenous line, site preparation
 - Vital signs and observe operation site frequently for bleeding.
 - Strict intake and output chart
 - Prevent clot formation in catheter by preventing kinking and encourage oral fluid intake
 - Encourage early ambulation with passive and active exercises to prevent complications.
 - Encourage plenty of fluid intake to avoid clots and prevent dehydration.
 - Avoid straining, heavy lifting and prolonged sitting.

Client Teaching:

- Explain the symptoms and complication of BPH (a) Urinary retention ((b) Cystitis (c) Increase in irritative voiding symptoms by encouraging patient to report the symptoms.
- Teach patient to do Kegel (Perineal exercise) after surgery to help gain control of voiding.
- Contract perineal muscle for 10-15 secs, then relax. Repeat 15 times.
- Do 15 sets per day.
- Advice and tell patient to avoid sexual intercourse, straining at stool, heavy lifting and long periods of sitting for 6 to 8 weeks after surgery until Prostatic fossa is healed.
- Advice follow-up visits as urethra stricture may occur and regrowth of prostate is possible.

Prostate cancer

Prostate cancer typically affects men over the age of 50 years. 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.

CAUSES

It is not clear what cause but mutations in the abnormal cells DNA causes the cells to grow and divide more rapidly than normal cells do. The abnormal cells continue to grow while the normal dies off, the accumulating abnormal cell forms a tumor that can grow to invade nearby tissues.

The therapeutic interventions as well as surgeries

The surgeries include:

- 1) Laparoscopic radical prostatectomy (LPR): The surgeon inserts special long instruments through the several small incisions in the abdominal wall to remove the prostate with the use of camera.
- 2) Radical Prostatectomy: It is an operation to remove the prostate gland and tissues surrounding it.

Medications include:

Lupron, Viadur, Zoladex, Trelstar and Eligard. These are drugs used in Hormone Therapy which block the release of LHRH

The use of alpha blockers and 5 alpha- reductase inhibitors. Alpha blockers act by relaxing the smooth muscle in the bladder neck and prostate thereby decreasing the resistance to urinary flow.

The nursing care and client teaching

A) Nursing Assessment

- 1) History collection
- 2) Physical Examination regarding presenting urinary problems, voiding functions, UTI, Urinary retention, Dysuria.
- 3) Obtain Family history of prostate cancer
- 4) Nutritional Lifestyle

B) Preoperative

- 1) Reduce anxiety
- 2) Relieve discomfort
- 3) Provide instructions regarding anatomy, surgical procedures and postoperative expectations.
- 4) Prepare the patient for surgery. This may include application of antiembolic stockings, administering an enema, and prophylactic antibiotics.

C) Postoperative

- 1) Monitoring
- 2) Continuous Irrigation and maintain catheter patency.
- 3) Blood clots and hematuria are expected for the first 24- 36 hours.
- 4) After catheter is removed checked for urinary retention and urinary system.