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**MATRIC** **NO**: **17**/**MHS02**/**086**

**ASSIGNMENT TITLE: MALE REPRODUCTIVE SYSTEM-PROSTATE DISORDERS**

**COURSE** **TITLE:** **MEDICAL** **SURGICALNURSING** **II**

**COURSE** **CODE:** **NSC** **306**

**QUESTION: Summarize the following in maximum of 6 typed pages:**

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

**INTRODUCTION**

The prostate is an exocrine gland of the male reproductive system in most mammals and some invertebrates. It is about the size of a walnut and sits below the neck of the bladder. It wraps around the urethra. The prostate produces a milky fluid which is part of semen. This fluid called seminal fluid nourishes and transports the sperm.

It is normal for prostate to get bigger as men get older, for some men this can cause bladder problem.

**DISORDERS OF PROSTATE GLAND**

1. Prostatitis
2. Benign prostate hyperplasia (BPH)
3. Prostate cancer
4. **PROSTATITIS**

Prostatitis is an inflammation of the prostate gland that may result from a bacterial infection. It affects at least half of all men at some time during their lives. Having prostatitis does not increase the risk of any other prostate disease. The sign and symptoms include: dysuria, nocturia, blood in urine, painful ejaculation, flu-like signs and symptoms, cloudy urine e.t.c.

**AETIOLOGIES**

1. Acute bacterial prostatitis is usually caused by common strains of bacteria. The infection starts when bacterial in urine leak into the prostate and from direct extension or lymphatic spread from the rectum.
2. It can also result from various sexually transmitted organisms such as Neisseria gonorrhoeae, Chlamydia trachomatis or HIV.
3. Organism responsible for urinary tract infections e.g Escherichia coli can also cause prostatitis.
4. Functional or structural urinary tract abnormality.
5. Local pelvic trauma.

**THERAPEUTIC INTERVENTIONS**

1. **Antibiotics:** Antibiotic treatment over a longer period of time is best for acute and chronic bacterial prostatitis. For acute bacterial prostatitis , treatment lasts for 7-14 days while for chronic bacterial prostatitis, treatment lasts for 4-12 weeks. It stops the growth of bacteria.
2. **Alpha blockers:** These medications help to relax the bladder neck and the muscle fibers that joins the prostate to the bladder making passage of urine easier. It is usually use for treatment of chronic prostatitis/chronic pelvic pain syndrome.
3. **Anti-inflammatory agents:** Non steroidal anti-inflammatory drugs (NSAIDs) may be used to relieve pain, decrease inflammation and reduce fever.

**SURGERY**

1. Transurethral resection of the prostate (TURP)
2. Transurethral incision of the prostate (TUIP)
3. Suprapubic prostatectomy
4. Retropubic prostatectomy
5. Perineal prostatectomy

**NURSING CARE**

1. Collect history of previous sexually transmitted infections, urinary tract infections or voiding pattern
2. Keep patient hydrated but avoid overhydration
3. Collect specimens of urine for culture and prostatic secretions
4. Commerce antibiotic therapy as prescribed according to culture and sensitivity result
5. Tepid sponge and administer antipyretic in case of fever
6. Administer prescribed analgesic and anti-inflammatory drugs

**CLIENT TEACHING**

1. Educate patient on the importance of completing the course of the treatment
2. Encourage patient to soak in a warm bath (sitz bath) or use a heating pad 10-20 minutes daily
3. Advise patient to avoid sexually intercourse until the condition is cleared
4. Educate patient to limit or avoid alcohol, caffeine and spicy or acidic food which can irritate the bladder
5. Advise patient to avoid activities that can irritate the bladder such as prolonged sitting or bicycling
6. Encourage follow-up because reoccurrence is possible

**2 BENIGN PROSTATIC HYPERPLASIA (BPH)**

**Benign** means “not cancerous” and **hyperplasia** means “abnormal cell growth”. It is an enlargement of the prostate gland that constricts the urethral causing urinary symptoms. It is common among men older than 50 years. The signs and symptoms include: incomplete bladder emptying, nocturia, dripping at the end of urinary stream, dysuria, blood in urine, incontinence, e.t.c.

**AETIOLOGIES**

1. Ageing.
2. Smoking: Smoking increase the risk of acquiring BPH.
3. Reduced activity level: A sedentary lifestyle could also lead to the development of BPH.
4. Hormonal disturbances: elevated oestrogen level with decreased androgen level.
5. Auto immune response.
6. Arteriosclerosis.
7. Metabolic or nutritional disturbances.
8. Tumour.
9. Infections.

**THERAPEUTIC INTERVENTION**

1. Alpha adrenergic blockers: This class of medications works by relaxing the bladder neck muscles and the muscle fibers in the prostate e.g alfuzosin, doxazosin, silodosin, tamsulosin, terazosin e.t.c.
2. Hormonal manipulation with anti androgen agents: These agents decrease the size of the prostrate and prevents the conversion of testosterone to dihydrotestosterone (DHT).
3. Use of phytotherapeutic agents and other dietary supplements.

**SURGERY**

1. Transurethral microwave heat treatment .
2. Transurethral needle ablation (TUNA).
3. Transurethral resection of the prostate (TURP).
4. Open prostatectomy.

**NURSING CARE**

1. **Reduce anxiety:** The nurse should familiarize the patient with the preoperative and postoperative routines and initiate measures to reduce anxiety.
2. **Relieve discomfort:** Bed rest and analgesics are prescribed if a patient experience discomfort.
3. **Provide instruction:** Before the surgery, the nurse should review with patient the anatomy of the affected structures and their functions in relation to the urinary and reproductive systems.
4. **Maintain fluid balance:** fluid balance should be restored to normal.
5. Observe urinary stream, noting size and force.
6. Provide and encourage meticulous catheter and perineal care to reduce the risk of infection.
7. Recommend sitz bath as indicated to promote muscle relaxation.

**CLIENT TEACHING**

1. Explain the symptoms and complication of BHP such as urinary retention, cystitis, increase in irritative voiding e.t.c.
2. Encourage patient to report the symptoms.
3. Teach patient to do kegel or perineal exercise after surgery to gain control of voiding.
4. Contracts the perineal muscle for 10-15 seconds, then relax. Repeat 15 times daily.
5. Advise patient to avoid sexual intercourse, heavy lifting, straining at stool and long period of sitting for 6-8 weeks after surgery until prostate fossa is healed.
6. Advise follow-up visits as urethra stricture may occur and regrowth of prostate is possible.

**3** **PROSTATE CANCER**

Prostate cancer is the development of cancer in the prostate. Prostate cancer tends to grow slowly compared with most other cancer. Cell changes may begin 10 , 20, or even 30 years before a tumor gets big enough to cause symptoms. Eventually, cancer cell may spread (metastasize) throughout the body. The signs and symptoms include: dysuria, painful ejaculation, blood in urine or semen, nocturia, e.t.c

**AETIOLOGIES**

1. Ageing (above 50)
2. Obesity
3. Smoking
4. Inflammation of the prostate
5. Sexually transmitted infections
6. Vasectomy

**THERAPEUTIC INTERVENTION**

1. Chemotherapy: it involves the use of drug to destroy cancer cells usually by keeping the cancer cells from growing, dividing and making more cells.
2. Immunotherapy: It is designed to boost the body natural defenses to fight the cancer.
3. Hormone therapy: The goal is to cut the supply of hormone that fuel the prostate gland. It drastically lower the testosterone levels and prevent prostate cancer cell from using low levels of androgens.
4. Anti-androgen : These drugs block the ability of prostate cancer to use androgen e.g flutamide, bicalutamide, nilutamide e.t.c
5. GnRH agents: These drugs works by blocking the body from making luteinizing hormone which stimulate testosterone production e.g, buserelin, degarelix, leuprolide, triptorelin, e.t.c
6. Radiation therapy: this is the use of high energy rays to kill cancer cells and shrink tumors.

**SURGERY**

1. Open prostatectomy
2. Radical retopubic prostatectomy
3. Radical perineal prostatectomy
4. Laparoscopic prostatectomy
5. Transurethral resection of the prostate (TURP)
6. Robotic prostatectomy
7. Pelvic lymphadenectomy

**NURSING CARE**

1. Reduce anxiety of the patient by giving psychological support
2. Monitor vital signs
3. Prepare patient for chemotherapy when needed.
4. Formulate and implement a care plan that is directed by concrete goals.
5. Administer prescribed medication.

**CLIENT TEACHING**

1. Encourage client to eat tomatoes, watermelon and other red foods owe their bright color to a powerful antioxidant called lycopene.
2. Advise patient to consider taking soya beans because it contains a nutrient called isoflavones.
3. Educate patient to make good choice about fat: Encourage patient to replace animal-based fats with plant-based fats if possible e.g olive oil instead of butter, nuts or seed instead of cheese e.t.c.
4. Advise patient to stop smoking.
5. Encourage patient to make time for exercise because being overweight or obese is linked to an increased risk of aggressive prostate cancer.
6. Advise patient to cut down on citrus juices and drinks with caffeine or alcohol.