AKINOLA TITILAYO FATIMAH

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ASSIGNMENT

There are three types of prostate disorders and they are:

1. Prostatitis
2. Benign Prostatic Hyperplasia (Enlarged Prostate)
3. Cancer of the prostate

Prostatitis

It is an inflammation of the prostate gland that is often associated with lower urinary tract symptoms and symptoms of sexual discomfort and dysfunction. The condition affects 5% to 10% of men. It is the most urologic diagnosis in men younger than 50 years and the third most common such diagnosis in men older than 50 years. It may be caused by infectious agents or other conditions (urethral strictures, BPH). Escherichia coli is the most commonly isolated organism, although Klebsiella and Proteus species are also found.

There are four types of prostatitis:

* + Acute bacterial prostatitis (type 1)
	+ Chronic bacterial prostatitis (type 2)
	+ Chronic prostatitis/chronic pelvic pain syndrome (CP/CPPS) (type 3)
	+ Asymptomatic inflammatory prostatitis (type 4)

Clinical Manifestations

* + Sudden onset of fever
	+ Dysuria
	+ Perineal prostatic pain
	+ Severe lower urinary tract symptoms: dysuria, frequency, urgency, hesitancy and nocturia.

Medical Management

Hospital admission may be necessary for patients with unstable vital signs, sepsis, or intractable pelvic pain; those who are frail or immunosuppressed; or those who have diabetes or renal insufficiency. Specific treatment is based on the type of prostatitis and on the results of culture and sensitivity testing of the urine. If bacteria are cultured from the urine, antibiotic agents, including trimethoprim-sulfamethoxazole (Bactrim) or a fluroquinolone (e.g. ciprofloxacin), may be prescribed and continuous therapy with low-dose antibiotic agents may be used. Anti-inflammatory may be used if the patient is afebrile and has a normal urinalysis. Alpha-adrenergic blocker therapy may be prescribed to promote bladder and prostate relaxation.

Nursing Management

Patient may be hospitalized for intravenous antibiotic therapy. Nursing management includes administration of prescribed antibiotic agents and provision of comfort measures, including prescribed analgesic agents and sitz baths.

The patient with chronic prostatitis is usually treated on an outpatient basis and needs to be educated about the importance of continuing antibiotic therapy and recognizing recurrent signs and symptoms of prostatitis.

The nurse educates the patient about the importance of completing the prescribed course of antibiotic therapy. Fluids are encouraged to satisfy thirst but are not forced, because an effective medication level must be maintained in the urine.

Benign Prostatic Hyperplasia (Enlarged Prostate)

BPH is a noncancerous enlargement or hypertrophy of the prostate. It is one of the most common diseases in aging men. The enlargement of the prostate gland causes the urethra to narrow, and puts pressure on the base of the bladder. This can lead to obstruction 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. It isn't entirely clear what causes the prostate to enlarge. However, it might be due to changes in the balance of sex hormones as men grow older.

Clinical Manifestations

* + Obstructive and irritative symptoms may include: urinary frequency, urgency, nocturia, abdominal straining with urination, decrease in volume and force of the urinary stream, dribbling, complications of acute urinary retention and recurrent UTIs.
	+ Generalized symptoms; fatigue, anorexia, nausea, vomiting, and pelvic discomfort.

Medical Management

Treatment depends on the severity of symptoms, the cause of disease, the severity of the obstruction, and the patient’s condition. Therapeutic choices are; pharmacologic therapy and surgical management.

Pharmacologic therapy

The pharmacologic treatment for BPH includes the use of alpha-adrenergic blockers and 5-alpha-reductase inhibitors. This improves urine flow and relieves symptoms of BPH.

Another method of treatment involves hormonal manipulation with antiandrogen agents. The 5-alpha-reductase inhibitors finasteride and dutasteride are used to prevent the conversion of testosterone to DHT and decrease prostate size.

Surgical management

Minimally invasive procedures and resection of the prostate gland. Transurethral microwave thermotherapy (TUMT) involves the application of heat to prostatic tissue. Other minimally invasive treatment options include transurethral needle ablation (TUNA) by radiofrequency energy and UroLume stent.

Surgical resection of the prostate gland is another option for patients with moderate to severe lower urinary tract symptoms of BPH and for those with acute urinary retention or other complications.

Cancer of the prostate

The is the most common cancer in men other than nonmelanoma skin cancer. Among men diagnosed with prostate cancer, 98% survive at least 5 years, 84% survive at least 10 years, and 56% survive 15 years. Prostate cancer is cancer that occurs in the prostate. Usually prostate cancer grows slowly and is initially confined to the prostate gland, where it may not cause serious harm. However, while some types of prostate cancer grow slowly and may need minimal or even no treatment, other types are aggressive and can spread quickly. Prostate cancer that's detected early, when it's still confined to the prostate gland has a better chance of successful treatment.

It's not clear what causes prostate cancer. Prostate cancer begins when some cells in the prostate become abnormal. Mutations in the abnormal cell’s 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 tumour that can grow to invade nearby tissue. Some abnormal cells can also break off and spread (metastasize) to other parts of the body.

Clinical Management

Cancer of the prostate in its early stages rarely produces symptoms.

* + Symptoms of urinary obstruction: difficulty and frequency of urination, urinary retention, and decreased size and force of the urinary stream.
	+ Symptoms of metastases include; backache, hip pain, perineal and rectal discomfort, anaemia, weight loss, weakness, nausea, oliguria and spontaneous pathologic fractures.
	+ Other symptoms include; haematuria, painful ejaculation and sexual dysfunction.

Medical Management

Management may be nonsurgical and involve watchful waiting or be surgical and entail prostatectomy. For patients with prostate cancer who choose nonsurgical watchful waiting, this approach involves actively monitoring the course of disease and intervening only if the cancer progresses or if symptoms warrant other intervention.

Surgical management

Radical prostatectomy is considered first-line treatment for prostate cancer and is used with patients whose tumour is confined to the prostate.

Radiation therapy

Two major forms of radiation therapy are used to treat cancer of the prostate: teletherapy (external) and brachytherapy (internal).

Hormonal strategies

ADT is commonly used to suppress androgenic stimuli to the prostate by decreasing the level of circulating plasma testosterone or interrupting the conversion to or binding of DHT.

Chemotherapy

Recent studies have shown clear benefits in terms of survival with chemotherapy treatment that includes a docetaxel-based regimen for non-androgen-dependent prostate cancer.

Cryosurgery is another therapy of the prostate used to ablate prostate cancer in patients who cannot tolerate surgery and in those with recurrent prostate cancer.

Surgical Procedures

Prostate surgery may be indicated for patients with BPH or prostate cancer. Several approaches can be used to remove the hypertrophied portion of the prostate gland and they are:

* + TURP- Transurethral Resection of the Prostate
	+ Suprapubic Prostatectomy
	+ Perineal Prostatectomy
	+ Retropubic Prostatectomy
	+ Transurethral Incision of the Prostate
	+ Laparoscopic Radical Prostatectomy
	+ Robotic-Assisted Laparoscopic Radical Prostatectomy
	+ Pelvic Lymph Node Dissection

Complications

Postoperative complications depend on the type of prostatectomy performed and may haemorrhage, clot formation, catheter obstruction and sexual dysfunction. All prostatectomy may carry a risk of impotence because of potential damage to the pudendal nerves. After total prostatectomy, the risk of impotence is high.

Nursing Interventions for Patient Undergoing Prostatectomy

* Preoperative Nursing Interventions
	+ Reducing Anxiety
	+ Relieving Discomfort
	+ Providing Education
	+ Preparing the Patient
* Postoperative Nursing Interventions
	+ Maintaining Fluid Balance
	+ Relieving Pain
	+ Monitoring and Managing Potential Complications
	+ Promoting Home, Community-Based, and Transitional Care