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**Title:Assignment**

**1. DIFFERENT DISORDERS OF THE PROSTATE GLAND**

* **PROSTATITIS:** It is an inflammation of the prostate gland caused by infectious agents(bacteria, fungi, and mycoplasma) or other conditions(e.g. urethral structure, prostatitis hyperplasia). E. Coli is the most commonly isolated organism. Microorganisms are usually carried to the prostate from the urethra. Prostatitis may be classified as bacterial or abacterial, depending on the presence or absence of microorganisms in the prostatic fluid.
* **BENIGN PROSTATE HYPERPLASIA (ENLARGED PROSTATE):** In many patients older than 50years, prostate gland enlarged,extending upward into the outflow of urine by encroaching on the vehicle orifice. This condition is known as benign prostatic hyperplasia(BPH), the enlargement, or hypertrophy, of the prostate. BPH is one of the most common pathological conditions in older men
* **CANCER OF THE PROSTATE**: Prostate cancer is the most common cancer in men other than non melanoma skin cancer. Prostate cancer is cancer that occurs in a man’s prostate. It usually grows slowly and initially remains confined to the prostate gland, where it may cause serious harm. While some types of prostate cancer grow slowly and may need minimal or no treatment, other types are aggressive and can spread quickly.

**2. THEIR AETIOLOGIES**

* **PROSTATITIS:** Acute bacterial prostatitis is often caused by common strains of bacteria. The infection may start when bacteria carried in urine leaks into your prostate. Antibiotics are used to treat it, if bacteria are not eliminated with antibiotics because they “hide” in the prostate, prostatitis may reoccur or be difficult to treat. This is called chronic bacterial prostatitis .
* **BENIGN PROSTATIC HYPERPLASIA:** The prostate gland is located beneath the bladder. It occurs when the cells of the prostate gland begin to multiply. These additional cells cause the prostate gland to swell, which squeezes the urethra and limits the flow of urine.
* **CANCER OF THE PROSTATE:** It’s not clear what causes prostate cancer. Doctors know that prostate cancer begins when some cells in yours prostate become abnormal. Mutations in the abnormal cells’ DNA cause the cells to grow and divide more rapidly than normal cells do. The accumulating abnormal cells form o tumor that can grow to invade nearby tissue. Some abnormal cells can break off and spread(metastasize) to other parts of the body.

**3.THE THERAPEUTIC INTERVENTIONS AS WELL AS SURGERIES**

* **RADIATION THERAPY**:If prostrate cancer is detected in its early stage, the treatment may be curative radiation therapy either tele-therapy with a linear accelerator or interstitial irradiation(implantation of radioactive seeds of iodine or palladium), also referred to as brachytherapy. Tele therapy involves about 6 to 7 weeks of daily(5days/week)radiation treatments. Interstitial seeds is performed under anesthesia. About 80-100 seeds are placed in ultrasound guidance, and the patient returns home after the procedure.

Exposure of others to radiation is minimal, but close contact to a pregnant woman and infants should be avoided for up to 2 months. The side effects which are transitory, include inflammation of the rectum, bowel and bladder (proctitis,enteritis and cystitis)due to their proximity to the prostate and the radiation doses. Irritation of the bladder and urethra an cause pain with urination and during ejaculation until the irritation subsides

* **HORMONAL THERAPY**: Hormonal therapy is one method used to control rather than cure prostrate cancer. Hormonal therapy for advanced prostate cancer suppressed androgenic stimuli to the prostate by by decreasing the circulation plasma testosterone levels or interrupting the conversion to or binding of dihydrotestosterone. As a result, the prostatic epithelium atrophies (decreases).

The effect is accomplished either by orchiectomy(removal of the testes)or by the administrations of medical. Orchiectomy lower plasma testosterone levels because about 93% of circulating testosterone is of testicular origin.

Estrogen therapy,usually in form of diethylstilbestrol(DES) has long been used to inhibit the gonadotropins responsible for testicular androgenic activity, thereby removing the androgenic hormone that promotes the growth of malignancy. DES relieves symptoms of advanced prostate cancer, reduces tumor size, decreases from metastatic nodules, and promotes well-being. DES significantly increases the risk of thromboembolism, pulmonary embolism,myocardial infarction, and the stroke. Newer hormonal therapies include the luteinizing hormone-releasing hormone(LH-RH)agonist and anti androgen agent, such as flutamide(Eulexin).

* **CRYOSURGERY OF THE PROSTATE**: It is used to ablate prostate cancer in the patients who could not physically tolerate surgery or in those of recurrent prostate under ultrasound guidance to freeze the tissue directly. Chemotherapy, such as doxorubicin,cisplatin, and cyclophosphamide, may also be used.

**SURGICAL PROCEDURES**

* **TRANSURETHRAL RESECTION OF THE PROSTATE:** The most common procedure used can be carried out through endoscopy. The surgical and optical instrument is introduced directly through the urethra to the prostate, which can then be viewed directly. The gland is removed in small chips with an electrical cutting loop. This procedure, which requires no incision, maybe used for glands of varying size and is ideal for patients who have small glands and those who are considered poor surgical risks. This approach usually requires an overnight hospital stay.TURP rarely causes erectile dysfunction, but it may cause retrograde ejaculation because removing the prostatic tissue at the bladder neck can cause the seminal fluid to flow backward into the bladder rather than forward through the urethra during ejaculation.
* **SUPRAPUBIC PROSTATECTOMY:** It is one method of removing the gland through an abdominal incision. An incision is made into the bladder, and the prostate gland is removed from above. Such an approach can be used for a gland of any size, and few complications occur, although blood loss may be greater than with the other methods. Another disadvantage is the need for an abdominal incision, with the concomitant hazard of any major abdominal surgical procedure.
* **PERINEAL PROSTATECTOMY**: it involves removing the gland through an incision in the perineum. This approach’s practical when other approaches are not possible and is useful for an organ biopsy. Postoperatively, the wound may easily be contaminated because the incision is near the rectum. Incontinence. Impotence, and rectal Injury are more likely with this approach
* **RETROPUBLIC PROSTATECTOMY**: this is another technique that is more common than the Suprapubic approach. The surgeon makes a low abdominal incision and approaches the prostate gland between the arch and the bladder without entering the bladder. This procedure is suitable for large glands located high in the pelvis. Although blood loss can be better controlled and the surgical site is easier to visualize, infections can really start in the retropubic space.
* **TRANSURETHRAL INCISION OF THE PROSTATE**: This is another procedure used in the treating BPH. An instrument is passed through the urethra. One of two incisions are made in the prostate and prostate capsule to reduce the prostate’s pressure of the urethra and to reduce urethral constriction. Transurethral incision of the prostate is indicated when the prostate gland is small and is an effective treatment for many cases of BPH. It can be performed on an outpatient basis and has a lower complication rate than other invasive prostate procedures.

**4. NURSING CARE AND HEALTH EDUCATION**

* **PROSTATE CANCER**

**NURSING CARE**

1. Involve patient in diversions therapy to reduce anxiety and relieve discomfort
2. Monitor intake and output
3. Monitor patient’s vital signs
4. Administer diuretic agents as prescribed
5. Educate patient on disease condition.

**HEALTH EDUCATION**

**1.** The nurse educates the patient about carrying out perineal exercise to gain full urinary control.

**2.** The nurse educated the patient about avoiding long motor trips and strenuous exercise which increases the tendency to bleed.

**3.** The nurse educated the patient about activities that produce Val saliva effects( straining, heavy lifting) because they may increase venous pressure and produce hematuria.

**4.** He should drinks enough fluid to avoid dehydration which increases the tendency for blood clot to form and obstruct the flow of urine.

* **BENIGN PROSTATIC HYPERPLASIA**

**NURSING CARE**

1. Preparation of patient for surgery if needed.
2. Administration of medications for pain and relieving urinary retention.

**HEALTH EDUCATION**

**1.** The nurse educated the patient on avoiding alcohol or drinks containing caffeine which will irritate the bladder.

**2.** The nurse educated the patient to avoid letting the bladder get too full.

**3.** The nurse educated the patient on the importance of completing his medication.

* **PROSTATITIS**

**NURSING CARE**

1. Administration of prescribed and provision of comfort measures including prescribed analgesic agents and sit baths
2. The nurse needs to educate patient about the importance of continuing antibiotics therapy and recognizing recurrent signs and symptoms of prostatitis. **HEALTH EDUCATION**

* The nurse should educate the patient on the following;

1. The importance of completing the prescribed course of antibiotic therapy.
2. To avoids foods and drink with diuretic action or that increases prostatic secretion such as alcohol,coffee, tea and chocolate.