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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 stricture, prostatic 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 PROSTATIC HYPERPLASIA (ENLARGED PROSTATE):** In many patients older than 50years, the prostate gland enlarges, extending upward into the outflow of urine by encroaching on the vesicle orifice. This condition is known as benign prostatic hyperplasia (BPH), the enlargement, or hypertrophy, of the prostate. BPH is one of the most common pathologic conditions in older men.
* **CANCER OF THE PROSTATE:** Prostate cancer is the most common cancer in men other than nonmelanoma 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.

1. **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 recur 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 your 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 a tumor that can grow to invade nearby tissue. Some abnormal cells can break off and spread (metastasize) to other parts of the body.

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

* **RADIATION THERAPY:** If prostate cancer is detected in its early stage, the treatment may be curative radiation therapy: either teletherapy with a linear accelerator or interstitial irradiation (implantation of radioactive seeds of iodine or palladium), also referred to as brachytherapy. Teletherapy involves about 6 to 7 weeks of daily (5 days/week) radiation treatments. Interstitial seed implantation is performed under anesthesia. About 80 to 100 seeds are placed with ultrasound guidance, and the patient returns home after the procedure. Exposure of others to radiation is minimal, but close contact with pregnant women 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 from radiation therapy can cause pain with urination and during ejaculation until the irritation subsides.
* **HORMONAL THERAPY:** Hormonal therapy is one method used to control rather than cure prostate cancer. Hormonal therapy for advanced prostate cancer suppresses androgenic stimuli to the prostate by decreasing the circulating plasma testosterone levels or interrupting the conversion to or binding of dihydrotestosterone. As a result, the prostatic epithelium atrophies (decreases). This effect is accomplished either by orchiectomy (removal of the testes) or by the administration of medications. Orchiectomy lower plasma testosterone levels because about 93% of circulating testosterone is of testicular origin. Estrogen therapy, usually in the 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 the malignancy. DES relieves symptoms of advanced prostate cancer, reduces tumor size, decreases pain from metastatic nodules, and promotes well-being. DES significantly increases the risk for thromboembolism, pulmonary embolism, myocardial infarction, and stroke. Newer hormonal therapies include the luteinizing hormone-releasing hormone (LH-RH) agonist and antiandrogen agent, such as flutamide (Eulexin).
* **CRYOSURGERY OF THE PROSTATE:** It is used to ablate prostate cancer in patients who could not physically tolerate surgery or in those with 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, may be 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 is practical when other approaches are not possible and is useful for an open biopsy. Postoperatively, the wound may easily become contaminated because the incision is near the rectum. Incontinence, impotence, and rectal injury are more likely with this approach.
* **RETROPUBIC 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 pubic 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 treating BPH. An instrument is passed through the urethra. One or two incisions are made in the prostate and prostate capsule to reduce the prostate’s pressure on 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.

1. **NURSING CARE AND CLIENT TEACHING IN THE DIFFERENT CONDITIONS**

* **PROSTATE CANCER:**

**NURSING CARE**

1. Involve patient in diversional therapy to reduce anxiety and relieve discomfort.
2. Monitor intake and output
3. Monitor patient’s vital signs.
4. Administer diuretics 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 educates the patient about avoiding long motor trips and strenuous exercise, which increases the tendency to bleed.
3. The motor educates the patient about activities that produce Valsalva effects (straining, heavy lifting) because they may increase venous pressure and produce hematuria.
4. He should drink 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 educates the patient on avoiding alcohol or drinks containing caffeine which will irritate the bladder.
2. The nurse educates the patient to avoid letting the bladder get too full.
3. The nurse educates 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 antibiotic therapy and recognizing recurrent signs and symptoms of prostatitis.

**HEALTH EDUCATION**

The nurse educates the patient on the following which are:

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