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COURSE; MEDICAL SURGICAL NURSING.

DIFFERENT DISORDERS OF THE PROSTRATE GLAND

1. ACUTE PROSTATITIS;

Acute prostatitis is usually caused by non-specific infection, spread from the urethra or bladder, often following catheterization, cystoscopy, urethral dilation or prostrate surgery. Chronic infection may follow an acute attack. Fibrosis of gland may occur during healing, causing urethral stricture or obstruction.

1. CHRONIC PROSTATITIS: In the prostatic secretion staphylococci are the most frequently found organisms. Chronic infection of the seminal vesicles accompanies prostatitis. It is generally a nonspecific infection and has an extremely varied symptomatology. Many patients with mild infection have no symptoms. There may be persistent urethral discharge, usually appearing at the meatus in the morning or during the day when a longtime elapses between voiding. There is a frequency of urination with mild urgency dysuria and burning on voiding, a dull ache may be felt; referred pain may occur anywhere below the diaphrangm.it is often felt when the patient first arises in the morning and any wear off during the day. There is frequently sexual dysfunction. Treatment consists of general hygienic measures, chemotherapy, attack on the distant primary focus of infection, eradication of complications and local therapy. Prostate massage is accomplished by stroking the posterior surface of the prostrate toward the midline. The fluid is milked from the urethra and examined under the microscope. In prostatitis, the fluid contains many leukocytes.
2. BENIGN PROSTATIC ENLARGEMENT/HYPERTROPHY.

Hyperplastic nodules form around the urethra and may obstruct the flow of urine, causing urinary retention. Urethral stricture may prevent the bladder emptying completely during micturition, predisposing to infection, which may spread upwards, causing pyelonephritis and complications. Prostatic enlargement is common in men over 50, affecting up 70% of men aged over 70. The cause is not clear, but it may be an acceleration of the aging process associated with the decline in androgen secretion, which changes the androgen/estrogen balance.

DIAGNOSIS

The disorder is diagnosed by

1. General physical examination, including a rectal examination
2. Laboratory examination of blood, urine and renal functions
3. X-ray examination, including intravenous pyelography and excretory cystography
4. Instrumental examination including catheterization, cystourethroscopy and biopsy.

Most patients are vague and unsure about what an enlarged prostate is and may be afraid of the tests and their results since many of the patients are facing the increasingly debilitating effects of age, a complete explanation of each step of the procedure is helpful. The patient may be shown a picture of the reproductive organs and prostate, and the effects of enlargement upon the excretion of urine can be explained. If the patient sees such a picture, he can better understand how the doctor can determine the size and consistency of the glands and the size and consistency of may be placed in the knee-chest position or bent over the bed.

The nurse may explain that relaxing and taking slow deep breaths may make the procedure easier. Prostatic secretion may be obtained during the rectal examination and examined under the microscope for pus cells which indicate infection. The urine may be normal in asymptomatic cases or may show infection by the presence of red or white cells, albumin and bacteria, or an alkaline reaction.

Renal function tests may be done if the prostatic symptoms indicate the need. Normal ranges in blood chemistry tests most often used in urology.

The instruments used in urology include certain urethral catheters and sounds. The catheters are used

1. Relieve urinary obstruction,
2. Obtain urine for diagnosis
3. Test for residual urine and bladder lavage or medication. If a catheter is to be left in dwelling, retention catheter of the Foley type is generally used. This catheter is kept in the bladder by an inflatable balloon filled with 5ml. of water.

The cystoscopy is indispensable in both the diagnosis and treatment of urologic disease. It is a diagnosis and treatment of urologic disease. It is a diagnosis and treatment of urologic disease.it is a metal instrument with optical systems that provide a magnified illuminated image of bladder. The cystoscopy examination is a valuable diagnostic procedure. The examination is carried out by a urologist.

Some indications of cystoscopy are

1. To determine the source of urinary bleeding

2. To determine the cause of unexplained urinary symptoms

3. To determine the source of pyuria

4. To catheterize the ureters for the purpose of localizing the infections and therapy

5. To obtain biopsy specimens;

6. For follow-up examinations

The nurse should assist the patient by explaining the procedure and the fact that it will be done under local or general anesthesia.

CATHETERIZATION OF THE MALE;

The distal end of the catheter should be covered with a surgical lubricant such as KY jelly. The catheter is gently inserted and pushed forward. As it meets the resistance offered by the external sphincter, the catheter usually passes into the bladder. The nurse inserting the catheter should wear sterile gloves. Absolute asepsis is necessary in the catheterization. Prepackaged sterile packs are generally used for the balls, lubricating jelly and catheters.

Hypertrophy alone is not an indication for surgery; only deteriorating function makes it imperative.

The surgical approaches that can be used are;

1. A transurethral resection for benign gland estimated to weigh 30 to 40m Gm. Or less. This offers direct pinpoint control of bleeding.
2. Retrograde or suprapubic surgery for enucleating larger glands and for correcting associated disease.
3. Perineal approach in the elderly person who is not an ideal surgical candidate, who has a large prostate and in whom retention of potency is not a determining factor.
4. Transsacral surgery for patients who have had previous operations or injury resulting in rectourethral fistulas or other lesions involving the rectum.

TRANSURETHRAL RESECTION

The TUR generally accepted as the method for removing minor obstructive lesions, is the most widely used of all prostatic surgery. A resectoscope is inserted through the urethra and the enlargement is scraped out. The resectoscope has two parts; an insulated sheath which prevents damage to the urethra after the instrument is inserted; and a working element, a moveable loop of tungsten wire cutes tissue with high frequency current that is turned on by a foot pedal. The surgeon operates the cutting loop by looking through a telescope; the field is illuminated by a bright electric light. Irrigating fluid can be shot in and out through the instrument, and the debris falls back into the bladder and is washed out. Hospitalization is usually short and convalescence more rapid than with other types of surgery.

In punch prostatectomy, a cold knife is used to remove the enlargement .Tissue is punched out piece by piece with circular hollow blade. Healing more satisfactory than when tissue is burned. However, burning is not eliminated, as bleeding is controlled by electric current. The patient returns to the ward with uretheral catheter and intermittent catheter irrigation system.

PREOPERATIVE NURSING CARE.

This includes;

1. Facilitation pf patient’s and family’s understanding of anesthesia, surgery and procedures;
2. Relieving the patient’s and family’s anxiety about the outcome with reasonable information
3. Meticulous attention to asepsis in catheterization, etc.
4. Encouragement of good fluid and dietary intake during hospital stay prior to surgery
5. For specific preoperative preparation, the patient should take shower twice daily, using a detergent soap the skin should be shaved in the area of the operative field. A tap water enema is usually given the night before. Patients are generally given a soporific drug the night before, and the preoperative medication is given according to the needs of the individual patient.

POSTOPERATIVE CARE.

During immediate recovery, the blood pressure, pulse and respiration should be observed every 15 minutes until stable. One risk due to transurethral resection is accidental perforation of either the bladder wall or the capsule of the prostate. If this is not recognized during the operation, the patient’s condition will rapidly deteriorate; he will have abdominal pain, sins of shock, some rigidity of the abdominal pain, signs of shock, some rigidity of the abdominal muscles and a rise in his pulse rate. This complication requires further surgery a suprapubic cystotomy .

The type of irrigation system used after surgery depends on the individual physician .closed irrigation is designed to permit constant or intermittent flow of washing fluid without the hazard of breaking aseptic technique. It is commonly used following a TUR when there may be considerable bleeding and possible obstruction of the system by blood clots. One method utilizes a glass Y tube attached to the catheter. One limb of the Y is attached drainage and the other to a reservoir of fluid suspended from a pole. The fluid may be allowed to flow continuously or used as needed. Another method is the use of three-way catheter. The nurse must ascertain whether or not the catheter is functioning by watching the free oscillations of the fluid in the inverted Y tube at the foot of the bed in response to the patient’s cough. Sluggish movement of this column of fluid, along with a slow drip into the collecting bottle, indicates the need for bladder irrigation. This condition must observe early before the bladder has become distended. The fluid intake of patient may generally be maintained orally. Since he seldom has a general anesthetic. The patient may have a soft diet on the day of surgery, with a general diet thereafter.

Patients recovering satisfactorily will experience little pain and do not require narcotics.

The urethral catheter is usually removed on the third postoperative day.

Patient is advised to remain in the hospital for four to eight days, since the danger of secondary hemorrhage is generally not over until then.

On discharge the patient is advised to rest and exercise moderately. Abstinence from sexual activity for at least 4weeks is emphasized, and the patient should be encouraged to continue his large fluid intake until his first check-up.

Urinary tract infection is very common following a TUR but it usually clears up 6 to 8 weeks postoperatively.

RETROGRADE OR SUPRAPUBIC PROSTATECTOMY- this is the procedure by which the gland is removed through the bladder after extraperitonel incision of the superior wall. This procedure is used when the obstructing tissue is estimated to weigh more than 60 Gm, if the patient is going to a part of the country where adequate urologic care is not available, or if the patient has sizeable diverticula of the bladder and significant bladder neck obstruction

PERINEAL PROSTATIC SURGERY-

This is used in suspected early carcinoma of the prostate or for removal of prostatic calculi. It probably interferes with active sex life more than do other techniques. The patient is put in lithotomy position and a V-shaped incision is made above the rectum. After surgery, a urethral catheter and a perineal drain are left in until the stitches are removed on about the seventh day and the area has been dry for a couple of days.

RETROPUBIC PROSTATECTOMY- The retropubic approach is used in all types’ prostatic diseases. The patient in a modified trendelenburg position, an incision 2 to 5 inches long is made above the pubis and prostatic capsule is excised. On the patient’s return to bed, the catheter is connected to a bedside KCH bottle by sterile tubing. The patient is generally allowed out of the bed the next day and the catheter and drain removed the third day.

1. PROSTATIC CANCER

Prostatic cancer is the second most common cause of death from cancer in the male .Most prostatic cancers are adenocarcinoma. The doctor suspects prostatic carcinoma on rectal examination. Symptoms at a stage prior to spread are not characteristic of the disease. Late in the disease, rectal findings include a hard, irregular or nodular gland. Cystoscopy may be used to determine whether or not surgery is indicated. A pelvic x-ray examination is essential, since the bones of the pelvis and spine are the most frequent sites of metastasis. Serum acid phosphatase determination aids in finding whether or not the cancer has spread, since the value is frequently elevated in metastatic carcinoma. It is almost never elevated in benign prostatic hypertrophy.

Prostatic carcinoma can be divided into four stages;

STAGE A- in which the lesion is occult, small, well differentiated and located within the gland.

STAGE B- in which the lesion is completely limited to the prostate and may be large or small.

STAGE C- in which the lesion invades the capsule and partially invades the areolar tissue around the base of the seminal vesicles, with no evidence of distant metastases.

STAGE D- in which the lesion has vascular and lymph node metastases.

A radical prostatectomy is associated with a small but significant degree of incontinence and a considerable degree of incontinence and a considerable degree of impotence. If the patient is an acceptable surgical risk and is willing to accept the disadvantages of a total perineal prostatectomy has the highest cure rates.

In perineal surgery, some preoperative bowel preparation is necessary, such as enemas containing neomycin. Postoperatively, the patient returns from surgery with urethral catheter. Its retention in the bladder is necessary for urinary drainage and as a splint for the urethral anastomosis. The catheter is usually left in place for two weeks. The patient should have fewer bladder spasms and should not have much bleeding. The amount of urinary drainage on the dressing should rapidly decrease. A tissue drain is generally removed 24 to 48 hours. A suprapubic drain will remain longer. Since perineal surgery may affect the perineal muscles, the patient may suddenly become incontinent. This may be avoided by having the patient start perineal surgery may affect the perineal muscles, the patient may suddenly become incontinent. This may be avoided by having the patient start perineal exercises a day or two after surgery. Exercises should be continued even after surgery. Exercises should be continued even after control of the anal sphincter returns. Perineal exercises consist of contracting the abdominal, gluteal and perineal muscles while breathing normally. The patient may be asked to contract his muscles as he would if his need to void his urgent and there was no place to go. Unless the urethral sphincter has been damaged, the regain urinary control more readily when the catheter Is removed.

Irradiation can cure some patients with carcinoma of the prostate. There I strong evidence that a 5 mg. daily dose of diethylstilbestrol, once a favored treatment, carries a significant risk of death due to cardiovascular disease. Endocrine therapy is advisable in patients with advanced prostatic carcinoma. Remission can be induced and patients may remain comfortable for two to three years or longer. The use of cyprterone acetate, a steroid exhibiting both endogenous and exogenous androgenic action, is thought to be as effective as estrogen and does not cause painful, enlarged breasts. In stage C of the disease, bilateral orchiectomy may be done to remove all testicular stimuli to continued prostatic growth. Prosthetic implants are available for esthetic reasons. Stlbestrol or TACE (chlorotrianisene) may be given. X-rays of the chest, lumbar spine and pelvis should be taken at six-month intervals.

Radiation as a form of treatment has certain benefits. It does not cause impotence and does not have the psychological implications of castration, nor is there the likelihood of increased risk of death due to cardiovascular complications.