



SNS COLLEGE OF ALLIED HEALTH SCIENCES
SNS Kalvi Nagar, Coimbatore - 35
Affiliated to Dr MGR Medical University, Chennai



DEPARTMENT: ALLIED HEALTH SCIENCES
COURSE NAME: Sugery

Topic: Prostatic hyperplasia



CASE SCENARIO

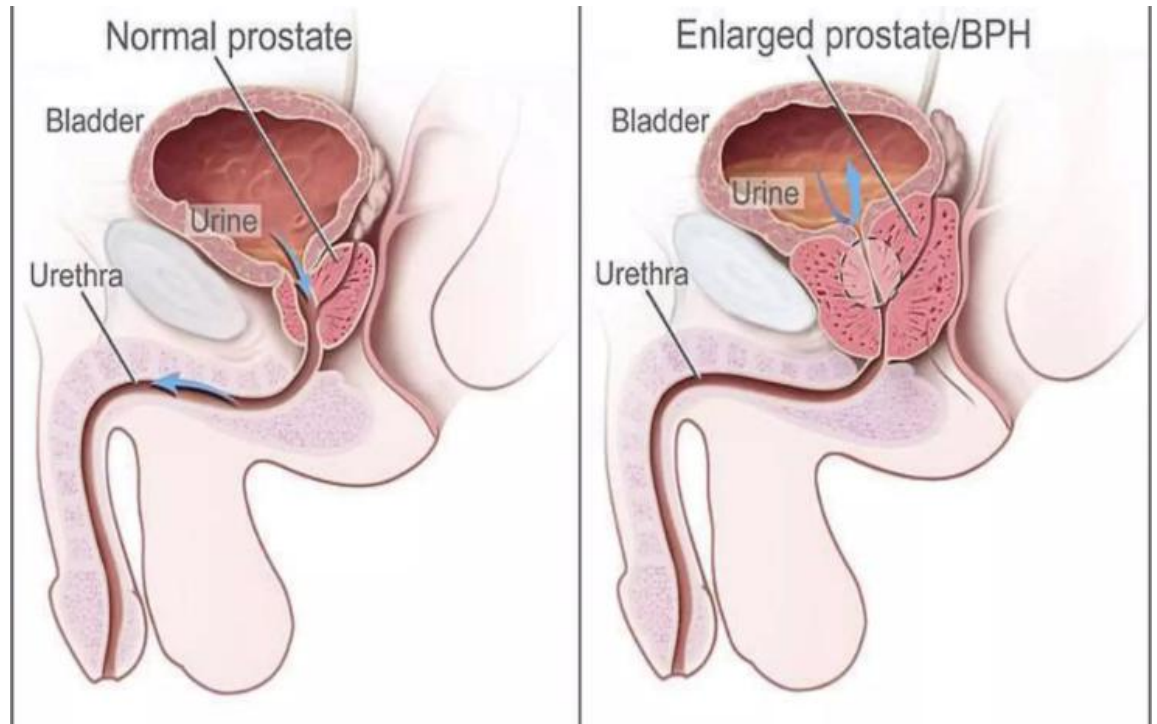


A 74 year old male presented with a complaints of increased frequency of *micturition* associated poor stream and urgency for the past 1 year .Now how will you manage this patient?

Introduction

Definition

Benign hyperplasia enlargement prostatic is an of the prostate gland resulting from an increase in the number of epithelial cells and stromal tissue and developing upward into the bladder and obstructing the outflow of urine.





Etiology



- Idiopathic
- Aging along with endocrine factors
- Accumulation of dihydroxytestosterone.
- Cancer of prostate
- Others- Obesity
- Inflammation
- Moderate Alcohol consumption



PATHOPHYSIOLOGY



- Due to etiological factors like aging,
- Decrease testosterone level
- Testosterone converted in to Dihydroxytestosterone.
- Dihydroxytestosterone accumulated in Stromal cell of prostate.
- Enlargement of prostate
- Obstruction of urine flow.



Assessment 1



- 1. Define hypertrophy
- 2. Define hyperplasia
- 3. etiological factors for BPH



Clinical manifestation



- Obstructive and irritative symptoms complex (prostatism) which includes increased frequency of urination, Nocturia, Urgency, Hesitancy in starting urination, Abdominal straining during urination
- Decrease in the volume and stream of urination, interruption of the urinary stream, dribbling (urine dribbles out after urination)
- a sensation that the bladder has not been completely emptied, acute urinary retention (when more than 60 mL of urine remains in the bladder after urination), > and recurrent urinary tract infections • Generalized symptoms like anorexia, nausea, vomiting, fatigue, epigastric symptoms





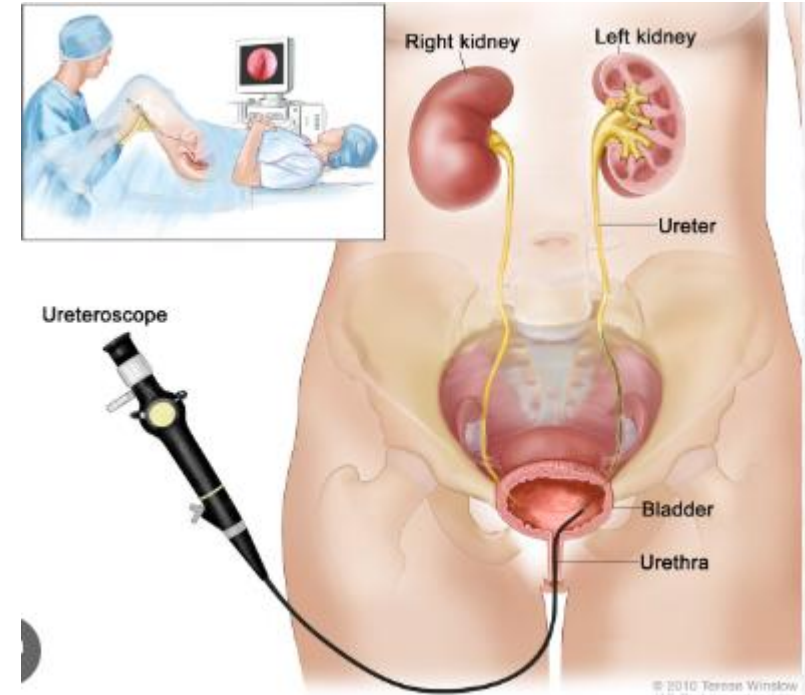
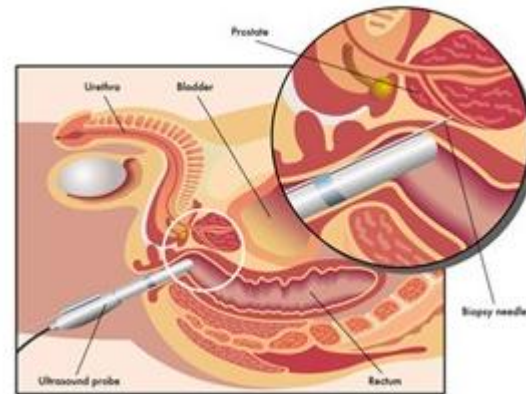
- Role play about symptoms-1

Assessment 2



Diagnosis

- History and physical examination
- • Digital rectal examination (DRE)
- • Urinalysis with culture
- • Serum creatinine
- • Prostate specific antigen (PSA): 4.0 ng/ml
- • Transrectal ultrasound (TRU:
- • Cystourethrosopy





Management



- The goal of collaborative care are Restore bladder drainage
- Relive patient symptom
- Prevent and treat complication of BPH

Medical management

- **Alpha blockers.** Alpha blockers relax the muscle in prostate gland
- **Anticholinergics.** Anticholinergics relax the bladder muscle if it's overactive.
- 5-alpha reductase inhibitors.
- **Combination therapy.** an alpha blocker and a 5-alpha reductase inhibitor
- **Tadalafil (Cialis).** This medicine is used to treat erectile dysfunction.
- Diuretics

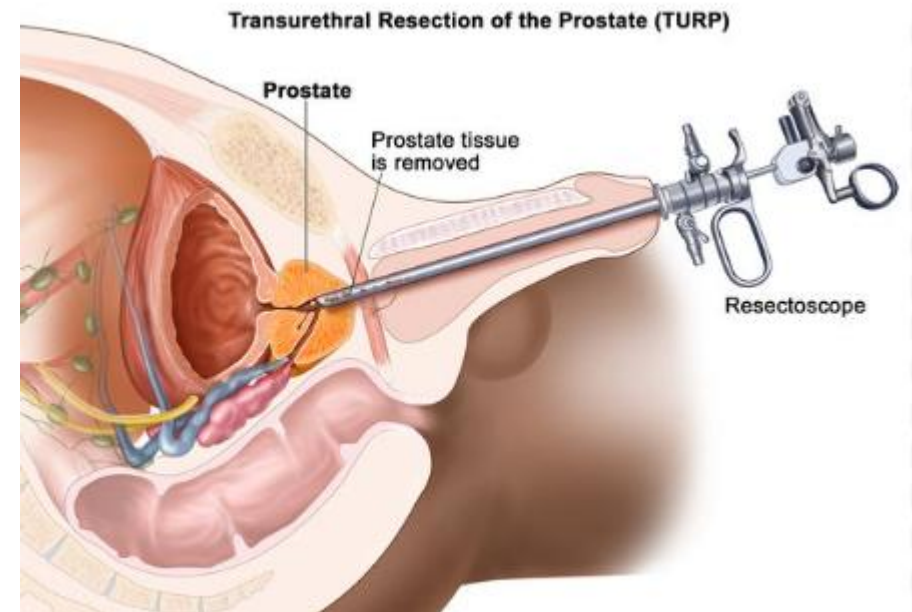


Surgical management



Transurethral resection of the prostate (TURP)

- A thin tool with a light, called a scope, is inserted into the urethra. removes the outer part of the prostate. TURP often relieves symptoms quickly. Some people have a stronger urine flow soon after the procedure .



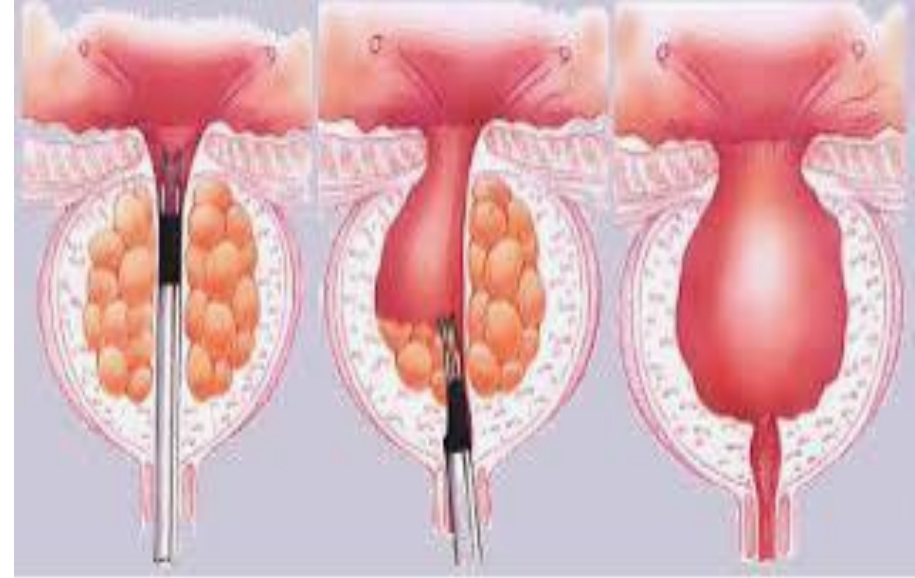


Cont...



Transurethral incision of the prostate (TUIP)

- A lighted scope is inserted into the urethra and made one or two small cuts in the prostate gland. This makes it easier for urine to pass through the urethra. TUIP might be an option if the patient have a small or slightly enlarged prostate gland.



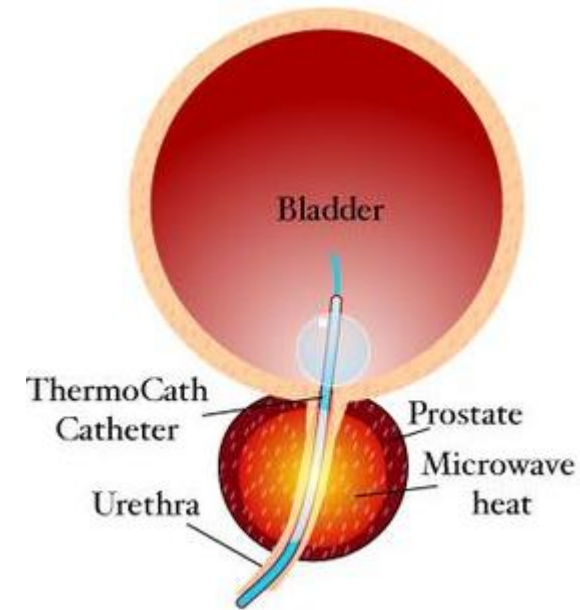


Cont...



Transurethral microwave thermotherapy (TUMT)

- A special catheter is placed through the urethra into the prostate area. Microwave energy from the catheter destroys the inner portion of the enlarged prostate gland. This shrinks the prostate and eases urine flow.

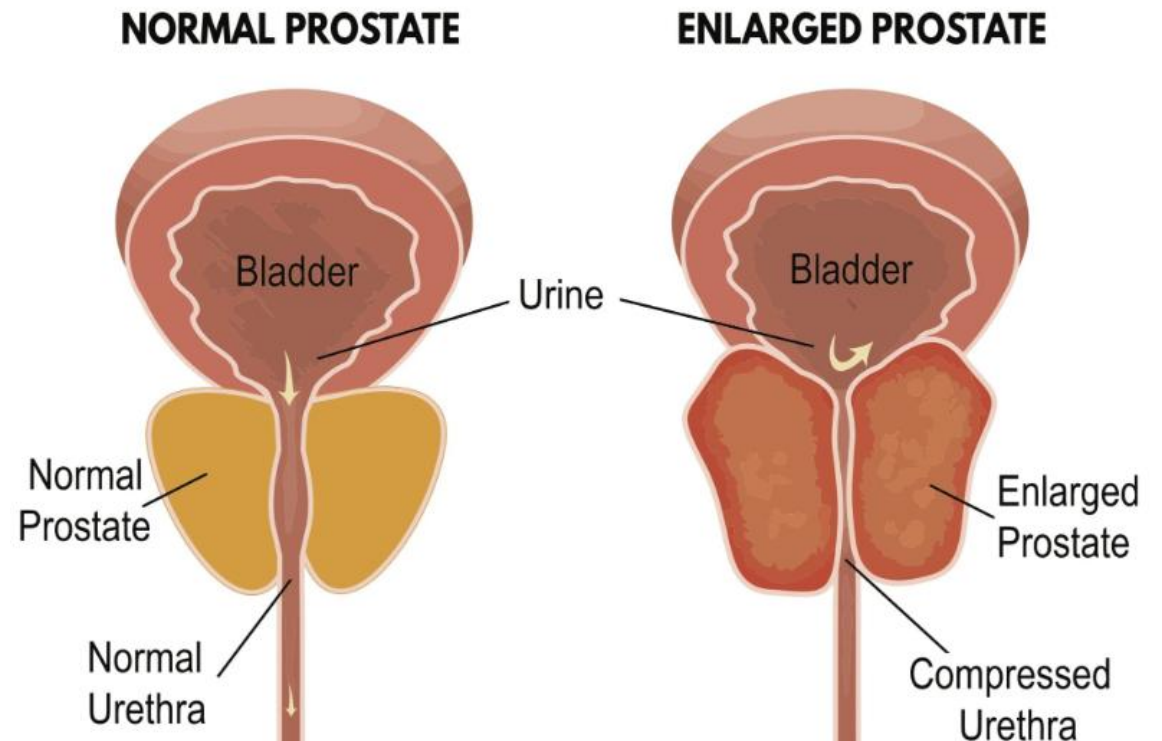


Laser therapy

- A high-energy laser destroys or removes overgrown prostate tissue. Laser therapy has a lower risk of side effects than does nonlaser surgery.

Laser therapy options include:

- **Ablative procedures.** These destroy prostate tissue that blocks urine flow. Types of these procedures include photoselective vaporization of the prostate (PVP) and holmium laser ablation of the prostate. Ablative procedures can cause irritating symptoms after surgery.
- **Enucleative procedures.** These treatments include holmium laser enucleation of the prostate (HoLEP). In general, they remove all the prostate tissue blocking urine flow and prevent tissue from growing back.

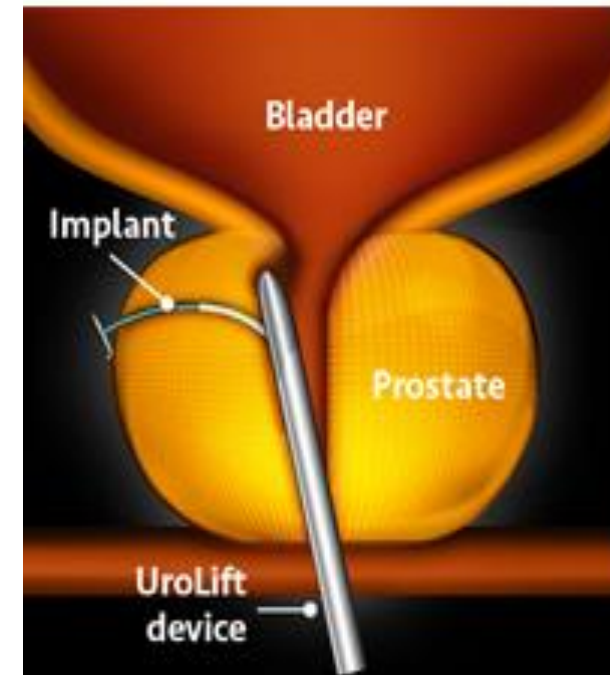




Cont..



- **Prostate lift**
- Special tags are used to compress the sides of the prostate. This can improve the flow of urine. A prostate lift might be an option if the middle section of the prostate gland doesn't get in the way of urine flow. It's less likely to cause sexual side effects than are many other surgical treatments.
- **Embolization**
- In this experimental procedure, the blood supply to or from the prostate is blocked in chosen areas. This causes the prostate to get smaller.





Cont..



Water vapor thermal therapy (WVTT)

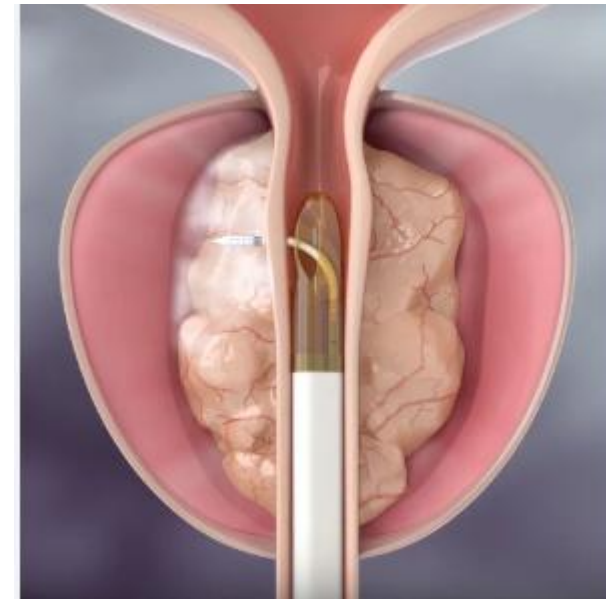
- A device is placed in the urethra. It turns water into steam. This wears away extra prostate tissues.

Robotic waterjet treatment

- This procedure uses imaging tests and robotic tools to guide a device into the urethra. The device releases tiny, powerful jets of water to remove extra prostate tissue.

Open or robot-assisted prostatectomy

- One or more cuts are made in the lower stomach area. This lets the surgeon reach the prostate and remove tissue





Quiz about

- Surgical management methods

Assessment-3





Reference

<https://youtu.be/HhMK2x8m3oQ?si=CaJpc0s1-thFvMJ->

