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I.d 15371
4th Semester
Clinical Medicine.

Q1 Hydronephrosis:

it is The Swelling of Kidney due to which up of urine it is The Blockage in which urine Cannd drain out from Kidney to Bladder it Can occurs one are both Kideys.

etiology:

:. primary:

⇒ Intrinsic Stricture.
⇒ peluiureteric junction obstruction
⇒ Renal pelvis Stone or tumor
⇒ Nephroptosis
⇒ extricisic Compresion.
⇒ idiopathic retroperitoneal fibrosis.
⇒ Aberrant renal vessels.

:. Secondry :

⇒ viscoureteral reflux

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=> obstruction distal to the uretero-pelvic junction

=> stone, tumor, extrinsic ureteral compression ureterocele Ca of pelvis viscera.

=> urethral obstruction

=> pregnancy.

Pathophysicology:

* pelvic type.
* Renal type.
* pelvirenal type.

The most common type both the pelvis and calyces are equally dilated.

* Reduced glomerular filtration rate.
* Reduced renal blood flow
* Impaired renal concentration ability
* Impaired distal tubular function
* postobstructive diuresis.

Symptoms

. asymptomatic

. pain is felt in the renal.

. hematuria

. dysuria frequency

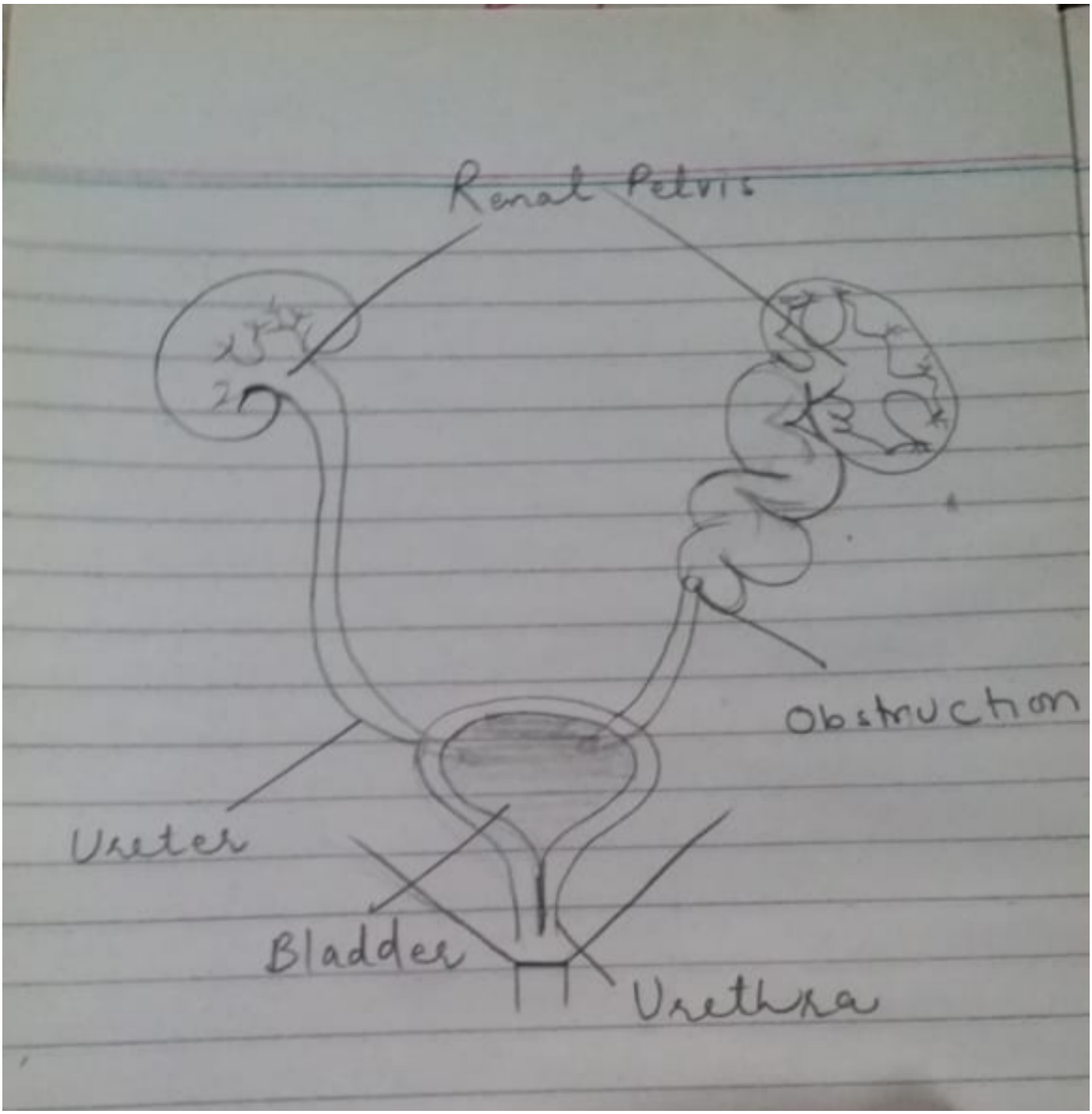
- Calculi
- azoternia
- Some large can be palpable.

Diagnosis :-

- Symptoms
- ultrasound
- IVU
- Delayed empty
- urine culture.
- Cystourethralgram
- Cystoscopy
- RGP
- Isotope renography

Treatment

① U.T.I Antibiotic Theropy
② Prompt to the drainage.
③ Corrected to the Cause.
④ Relief lower tract obstruction
⑤ Nephrectomy.


Renal Pelvis
Obstruction
Ureter
Bladder
Urethra

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Q2 Tuberculosis (TB) :

it is an infection disease Coused by a bacterium Called Mycobacterium tuberculosis.

it often The Lungs it may involue any organ and may infect anyone at any age.

TB is a Contagius disease which means That it Spread from person to person usually Through The air when a person with active disease Coughs and Spragg TLe bacteria in to TLe air.

Two types

Dulmonary TB.

it means That Mycobacterium infaction Lungs.

pulmonary TB occurs by breathing in air droplets from a Cough or Sneeze of an infected person.

Extra-Dulmonary TB

TB lymphadenis. is most Comman

TB and involes the lymph nodes. it affect the Cervical lymh nodes. in neck. But any lymph nodes Can be affected.

⇒ Gentovinary TB is and Common type. it Can infect any part of urinary tract and kidney is most Common Sites usualy Spreads to the area from the lungs through the blood or lymph nods.

⇒ Abdominal (TB)

. affects the gut the peritoneum omd abdominal lymh nodes omd rarely solid ogren (liver . pancreas and Spleen)

⇒ TB meningitis :

whe the brain and Spinal Card are infected by baderia.

⇒ Skelatal TB :. are (bone TB). it Spreads to your bones from lunges or lymph nodes. it Can affect any of your bones . Including Spine and joints.

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Active TB :-

* it is illness in which bacteria are multiplying
* active TB may spread by air transmission
* it is Contagious and Causes Symptoms.
* most Common active TB is Lung.
* also infect organs ∞ so Called extrapulmonary TB.

Latent TB :-

it occurs when a person has bacteria in body but it Cannot develop disease becoused of small numbers.
it Can Control by body immuse System.
in latent TB ∞ normal Chest x-ray and negative Sputum test but have TB skin test.

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Miliary TB :-

Miliary TB is a rare form that occure whe TB find into blood stream in this from it & quicky spread in all body in tiny nody

:. Pathophysiology :-

(Initial infection).

↓

Entry of micro organisum

↓

Bacteria is transmitted to alveoli Through air.

↓

Deposition and multplication of Bacteria.

↓

Bacili also transported to other parts of the body Through blood stream and phagocytosis by neutrophils and macrophages

↓

Mycobacteriam

↓

Pulmonary ∞ alveoli

↓

Alveolar Macrophages

↓

Detects presenee of pathogen and engoulph.

↓

Mycobacterim inhibtits the Macrophage.

↓

to forms phogolysome and remains protected inside the macrophage

↓

Starts replication inside. macrophas-

primary infection occure.
↓
Cell mediated immunity gets activated
Surrounds the cell to forms
granuloma (3 weeks)
↓
Leads to necrosis. (Terminus Gone Focus)
↓
Involve nearby lymph nods
(cone complex)
↓
Calcification of cone Complex)
(latent TB).

Q3 Formation of Kidney Stone.

Nephrolithiasis is the condition in which hard masses form in urinary tract.
Formed by (Ca^+ oxalate, uric acid)
Substances that inhibit stone formation is citrate. Low
13% in men
approximately 7% and women.
Among adults with Kidney stone 80 persent Consist of Calcium oxalate and or Calcium ~~Poth~~ phosphate. Stone.

Types.

① Calcium Oxalate.

Most Common types of kidney stone. is Calcium oxalate. These result when the urine Contains low levels of Citrate and High levels of Calcium and either oxalate. or uric acid. Calcium oxalate. Stones are linked with foods high in oxalated. Such plants and animals. including beets. black tea Chocolate. nuts potatoes. and Spinach.

② Calcium Phosphate.

Coused by abnormalities in urinary st system function. ∞ doctor may order a Series of blood and urine testes. to determine.

③ Struvite Stones.

Comenon in women. from as a result of Certain types of urinary tract.

infections. These stones are grow quickly and become large. Sometime occupying the entire kidney left untreated they can cause frequent and sometimes severe urinary tract infaction and loss of kidney functions.

Uric Acid :

More common in women uric acid stones tend to occure in people who dont drink enough water or have a diet high in animal protein they are also more likly to occur in people who have gout a family histroy of the types of kidney stone.

Cystine Stone.

Cystine caused by hereditary genetic disorders called Cystinuria that can lead to excessive amount of amino acid.

result in the formation of stone. in the kidney bladder and ureters. which transport urine from the kidneys to the bladder

Diagnosins.

(1) Blood test

Blood test for Sings of infection and high Ca^{+} levels parathyroid hormons and uric acid.

(2) urine test.

urine to check for. Crystals. and culture of urine to determin tract infection

(3) ultrasound.

recommed an ulta @ scan to evaluate your kidney bladder and ureters. which are the tubes that carry urine from the kidney to bladder.

(4) Intravenous Pyelogram

(5) Retrograde Pyelogram

(6) X. ray.

A Kidney KUB X ray of the abdomen and pelvis can help doctors to determine whether a kidney stone has grown passed or returned.

(7) CT. Scan

(8) MRI

Q4 GOITER :-

Def: Thyroid is a gland found in the neck just below your Adam's apple.

- It Secretes hormones that help regulate bodily function, including metabolism, the process that turns food into energy.

- It also regulates heart rate, respiration, digestion, and mood.

- A Condition that increases the Size of thyroid is Called a Goiter.

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- A goiter may develop in anyone, but is more common in women. Sometimes, it affects the way the thyroid functions.

Types of GOITER

- **Colloid Goiter:**

A colloid goiter develops from the lack of iodine, a mineral essential to the production of thyroid hormones. People who this type of goiter usually live in areas where iodine is scarces.

- **Nontoxic:**

The cause of a nontoxic goiter is usually unknown, through it may be caused by medication like lithium.

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- **Toxic Nodular:**
This type of goiter forms one or more small nodules as it enlarge. The nodules product their own hormone, causing hyperthyroidism.

Causes:

Iodine deficiency is the main cause of goiter. Iodine is essential to helping your thyroid produce thyroid hormones. When you don't have enough iodine, causing the gland to grow larger.

- **Graves' disease:**
occure when your thyroid more thyroid hormone than normal, which is known as hyperthyrodism. more hormones more size increase the size of thyroid.

DIAGNOSIS:

~~How~~ ~~is~~ your doctor will check for neck for swelling. They will also order a number of diagnostic tests that include the below:

- **Blood test:**

Blood tests can detect change in hormone levels and an increased, production of antibodies, which are produced in response to an infection or injury.

Thyroid Scan:

Your doctor may order scans of your thyroid. These scans show ~~the~~ the size and condition of your goiter.

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- Ultrasound:
An ultrasound produces images of your neck. The size of your goiter and wheter there are nodules. over time, an ultrasound can show changes in those nodules and the goiter.

- A biopsy:
is a procedure that involves taking small samples of your thyroid tissue. The samples are sent to a laboratory for examination.

TREATMENT:

Your doctor will decide on a coorse of treatment based on the size and condition of your goiter, and symptoms associated with it.

- Medications:

If you have hypothyroidism or hyperthyroidism medication to treat these condition may be enough to shrink a goiter. medications to reduce your inflamation may be used if you have thyroiditis.

- Sorgeries:

Surgical removal of your thyroid known as thyroidectomy. is an option if yours grow too large or - doesn't respond to medication therapy.

- Home Care:

Depending on your ~~type of multinodular~~ goiter. & you may need to increase or decrease your iodine intake at home.

If a goiter is small and doesn't causes any problem you may require no treatment at all.

Q5 Atelectasis.

Aslo known as asbestos peedee tumoror Blesousky Syndrome in This Condition Scar tissues Contract and Causes the Pleural Lining to fold into the lung.

it is benign yet deadly lung disease that is Charaterized by Severe Scarring and Inflammation of lung tissue it prevent the lung from expanding and relaxing normally.

partial or Complete Callapes of Lungs is Called atelectasis

May involed entire lung a lobe a Segment or be Subsegmental.

These are 5 mechanisum of atelectasis.

Symtoms: Trouble breathing Chest pain, Cough. Fever.

② Bronchiectasis.

Abnormal and permanent dilation of bronchi clinal. Consequenes chronic and recurrent infaction and pooling of Secretions on dilated airways. Pooling of Secretions in dilated airways.

Bronchiectasis is the permant dilation of bronchi and bronchioles due to destruction of the musels and elasitc Supporting tissus resulting from or assolated with chronic narcotizing infaction

Bronchiectosis is a Sencondre disease due to persistant infaction or obstruction long lasting bronchial obstruction Congenital or hereditary Condition

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③ Pneumonia.

Pneumonia is an inflammation of lung pneumonia (alveoli rather than the bronchi) in Infectiu.

it is the most common infaction couses of death

it is usually characterized by Consolidation (solidification)

Consolidation is a pathological process in which the alveoli are filled with a mixture of. Inflammorty exudate. baderic. and WBC.

2 types.

☆ Morphological. Catasifaci'-

lobar. pneumonia

Bronchopneumonic.

☆ Clinicaly Cdassifaw.

Communit. acquried. pneunonia

Hospital. acquried pneunonia. (HAP)