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ID H : 15254

Course title : Clinical
Medicine.

Final Term :



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Q. 1 => What is
Hydronephrosis?

Ans: Hydronephrosis:

Hydronephrosis is a

condition of K. that typically occur when a kidney swell due to urine failing to properly

drain from the kidney to bladder. The swelling most commonly affect only one kidney, but it involve both kidney.

Hydronephrosis isn't primary disease. It is secondary condition from some other underlying disease.

It is structural and result



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and result of blockage or obstruction in the urinary tract.

Hydronephrosis is said to affect about 1 in every 100 babies.

⇒ Cause of Hydronephrosis

⇒ Hydronephrosis is not disease. Instead it can be internal and external conditions that affects the kidney and the urinary collection system.

⇒ One of the most causes of hydronephrosis is Acute unilateral obstructive uropathy. This is sudden development of obstruction our ureters.

⇒ The most common cause for this blockage is kidney stone. Scarring blood clots.

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- ⇒ An Enlarged prostate gland.
- ⇒ Pregnancy cause Compression
- ⇒ Tumors is near to ureters.

⇒ Etiology of Hydronephrosis:

Primary

Intrinsic Structure

→ nephroptosis

→ Renal pelvis Stone.

→ extrinsic Compression.

Secondary ⇒

viscoureteral flux

→ Pregnancy

→ urethral Obstruction.

⇒ Pathophysiology:

Dilation of Renal pelvis and calyces
Pelvic Type.

Renal II

⇒ pelvi-renal type. most common



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→ Consequences of urinary tract obstruction:

Reduced glomerular filtration rate.
|| Renal blood flow

Impaired distal tubular function.

⇒ Diagnosis ⇒

Your doctor may use a catheter to drain some of urine from your bladder.

→ Doctor may also want to perform a renal ultrasound and CT scan to get closer look.

→ Symptoms and Sign.

→ Ultrasound

→ IVP.

→ RGP

→ Cystoscopy

→ Urine cultures Delayed empty.

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→ Treatment of Hydro nephrosis.

Treatment for hydronephrosis primarily focuses on getting rid of whatever is blocking the flow of urine.

1 → U.T.I Antibiotic therapy
* prompt drainage

* Correct to Cause

* Relief to lower tract obstruction.

* Nephrectomy.

No function kidney.

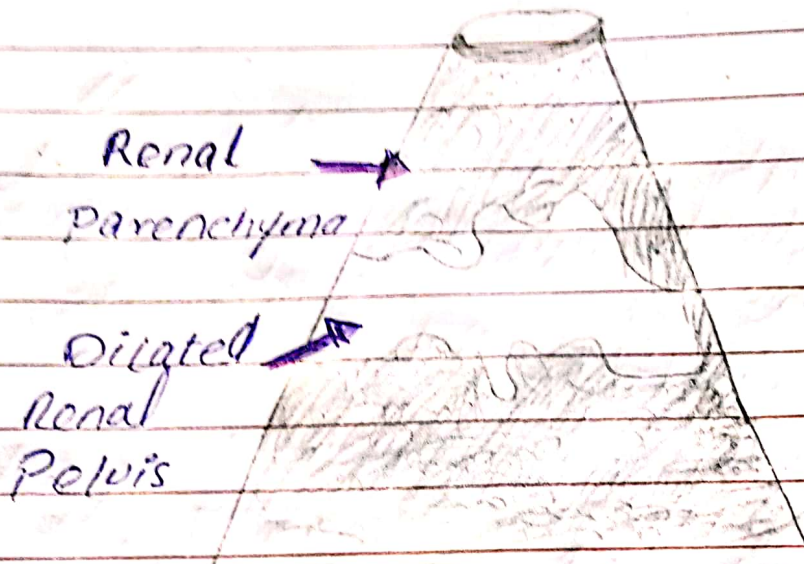
⇒ Insert a nephrostomy tube which allows the blocked urine drain to through back.

To this doctor must perform Endoscopic Surgery.



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Hydronephrosis

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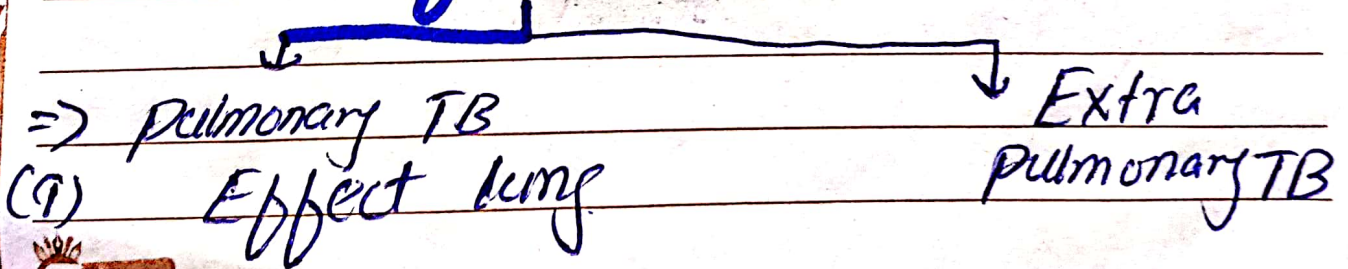
Q.2 Explain detail the type / Categories and Pathophysiology of Tuberculosis?

Ans: Tuberculosis (TB) is an infection disease caused by bacterium called Mycobacterium tuberculosis.

Tuberculosis (TB) may be regarded into two categories
↓ Active disease or latent infection.

Its most common form of active (TB) lung disease may be other organs so called extrapulmonary TB.

Classification TB



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Genitourinary TB: It is second most common type.

It affects most common type of genital or urinary tract.

Abdominal TB: It is type of TB that affects the gut the peritoneum abdominal nodes.

TB meningitis:

When the membrane surrounds the brain spinal cord are infected by bacteria.

Skeletal TB:

It spreads to your bone from your lungs.

TB Can be Categorized into

Active

Latent TB

miliary TB.

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=> Active TB :

It is illness in which the TB bacteria are rapidly multiplying and invading different organs of the body.

A typical symptoms of TB is Variably include cough phlegm Chest pain, weakness, fever weight loss Sweating in night

Active TB is Continuous and Causes Symptoms.

= Latent TB :

It has been occur when a person TB bacteria within their bodies but the bacteria are present very small number and does not develop disease.



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The are Control by body
Immune System.

It does not Cause Symptoms
and Continuous.

=> Normal Chest X-ray
and -ve Sputum tests
Such as Skin test.

=> It often only known as

=> It risk increased by
other illness such as
HIV.

Miliary TB

Miliary TB Rare form
active disease that
occur TB bacteria find
their way into blood
stream.

In the form of
bacteria quickly spread all
over the body effect
multiple organs rapidly

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⇒ Pathophysiology:

Initial infection or primary inf

↓
Entry of micro organisms through droplet nuclei.

↓
Bacteria is transmitted to alveoli through air ways.

↓
Deposition and multiplication of Bacteria.

* Bacilli are also transported to others body via blood stream and phagocytosis by neutrophils and macrophages.

Pathophysiology

Mycobacterium

↓
Pulmonary Aweoli

↓
Immune System loaded.

↓
Detects bacteria of pathogen bacteria



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mycobacterium bacteria inhibits
macrophages (phagosome +
lysosome) from phagocytosis
and remain protected
inside macrophages.

Pathophysiology

Starts replication inside macrophages
primary infection occur

Cell mediated Immunity get
active

Leads to necrosis of tissue
at infection site.

Involve nearby lymph node
Complex.

Classification of Case
Complex of Latent TB)

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Q.4 Groiter

A Groiter is an abnormal enlargement of thyroid gland.

Thyroid is butterfly shaped gland located at base of neck.

Groiter, are although painless.

⇒ Types of Groiter:

Three types of Groiter.

Colloid Groiter (Endemic)

It develop from lack of Iodine, a mineral essential to the production of thyroid hormones.

people have get this type due to the lack of Iodine.

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Non toxic (Sporadic)

The cause of this goiter is usually unknown.

It may be caused by medications like lithium. Such as bipolar disorders.

Non toxic don't affect the production of thyroid hormone and thyroid function healthy. It also begins.

Toxic Nodular

It forms more small nodules as enlarges. The nodules produce their own thyroid hormone cause hyperthyroidism.

It generally forms extension a simple goiter

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Causes The deficiency of Iodine is main cause of goiter.

Other Causes
Graves Disease: It occurs when your thyroid produces more thyroid hormones than normal which leads to hyperthyroidism.

Hashimoto Disease *
When it occurs the thyroid does not produce enough thyroid hormones causing hypothyroidism.

⇒ Low thyroid hormone causes the pituitary gland to make thyroid stimulating hormone that causes thyroid swell.

Inflammation * * An inflammation of thyroid that can cause goiter.

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Nodules ☺

Solid or fluid containing cysts may appear of thyroid and can cause to swell. These nodules are often noncancerous.

Thyroid Cancer

Cancer may affect thyroid which cause swelling one side of the gland.

It is common as formation of benign nodules.
pregnancy.

→ Diagnosis of Goiter ☺

Doctor check neck for swelling. It also number of Diagnostic.

Blood test ⇒ It can detects changes hormones level and increased production of antibodies.
It produce infection of injury.



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=> Thyroid Scan:

Doctor must scan thyroid.
It show size and condition
of your goiter.

Ultra Sound =>

It produces
image of neck size
of goiter whatever the
noodles.

US show changes in the
noodles and goiter.

=> Biopsy:

A Biopsy produces
that involves taking small
samples of your thyroid
tissues.

It sample sent into
labouratory examination.

=> Treatment of goiter:

The treatment depend upon
size of goiter your
symptoms and cause.



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Medications If you have hyperthyroidism or hypothyroidism medications to treat the condition may be enough to shrink the goiter.

Surgery Surgical removal of the thyroid gland as a thyroidectomy is an option if your goiter is too large or does not respond to medications.

Reproductive Iodine.

In people with toxic multinodular goiter RAI may be necessary. It is injected orally then travels to the thyroid, through the body, to destroy excessive tissue.

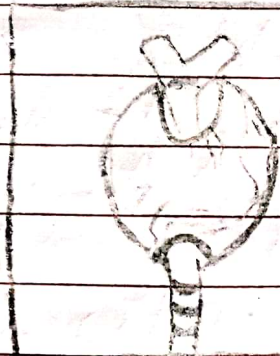
Home Care

Depending on the type of goiter you may need increased or decreased iodine intake at home.

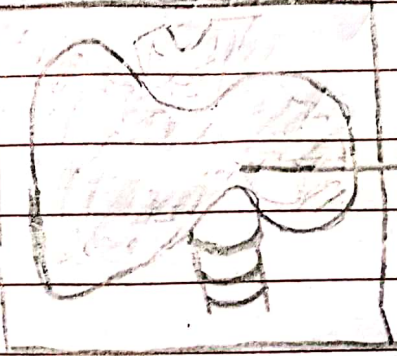
If goiters are small and do not cause any problems.

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Normal



Goiter

Enlarged
Thyroid
gland

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Q.3 How are the renal stones formed and different types of renal stone?

Ans:

Kidney stone forms when your urine contains more crystals forming substances.

Such as Calcium, oxalate and uric acid.

It can fluid in your urine can dilute. At the same time your urine may lack substances that prevent crystals from sticking together creating an ideal environment for kidney stone to form.

⇒ Types of Renal Stone:

⇒ Calcium Stone: Most kidney stones are calcium stones usually in the form of oxalate.

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Calcium Stone may occur in the form of Calcium phosphate. This type of Stone may occur in metabolic conditions such as renal tubular acidosis.

=> Struvite Stone:

Struvite Stone form in response to urinary tract infection. These stones can grow quickly and becomes quite large. Sometimes a few symptoms are warning.

=> Uric Acid Stone:

It can form in people who lose too much fluid b/c of chronic diarrhea or malabsorption. Those who eat high protein diet and those who have diabetes metabolic syndrome.

=> Cystine Stone:

This stone forms in people with hereditary disorder called cystinuria that cause the kidney to excrete too much specific amino acid.

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→ Radiological Procedure for Renal Stones Diagnosis

Client Kidney Stone those
Cause no symptoms are
Often Cause on X-ray
is taken during a healthy
exam.

But other people realize
that Stone are sudden
Pain occur when Stone is
passing, in this case medical
attention is needed.

When a person has blood in
urine (hematuria) sudden stomach
are side pain, tests like
ultrasound and CT scan
may diagnose a stone.

This imaging tests tell a doctor
how big the stone is located.

CT scan is often used ER
when stone is suspected.

It makes quick exact
diagram
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Ans 5: note write a detail on Atelectasis:

The partial or complete collapse of lungs is called Atelectasis.

It may involve entire lungs, a lobe, a segment or be subsegmental.

Five mechanisms of Atelectasis:

(i) Obstructive

(ii) Non obstructive → typically due to loss of contact.

(iii) Risk factor. Anesthesia
foreign bodies in air way
lung disease.

Symptoms: Trouble breathing
Chest pain with inspiration
Cough
Fever.

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Obstructive (Resorptive)

- * Most common type.
- * Result from blocked airways.
- * Re obstruction prevents air from reaching distal airways.

Non obstructive Atelectasis.

- * Passive
- * Compressive
- * Catarrhal
- * Adhesive.

Passive Relaxation Atelectasis

It is most 2nd common type of Atelectasis.

Leads to generalized collapse.

Compressive Atelectasis

Due to external compression of lungs.

may be caused localized collection of pleura.

Adhesive Atelectasis

It is caused by adherence of alveolar wall surface in setting surfactant deficiency.

Ex: hyaline membrane disease.

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Cicatrization Atelectasis
Secondary to fibrosis (Scarring) of lungs
of subsequent loss of expansion with
paranchyma

⇒ Re expand of lung.

⇒ Percussion of chest

⇒ Bronchoscopy

⇒ postural drainage.

2nd

⇒ **Pneumonia** :

Pneumonia is infection of lungs.
paranchyma i.e alveoli rather
than Bronchi.

It is the most common infection
cause of death.

It is usually characterized by
consolidation (solidification).

Classification

Type 1.

⇒ Morphological
Classification :

* Lobar pneumonia

* Broncho pneumonia

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Type 2: Clinically Classification

Community acquired pneumonia (CAP)

* Hospital-acquired pneumonia (HAP)

* Congestion

* Red hepatization.

* Resolution.

Broncho pneumonia

It is the infection of terminal bronchioles it extends to surrounding alveoli resulting consolidation of lung.

Chest x-ray lobar pneumonia

Consolidation combined to one or more lobes segments of lungs.

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Clinical Diagnosis

Chest X-ray
CT
History.

⇒ Etiological Diagnosis &

Sputum
Blood Culture
Serology
Bronchoscopy.

3rd

Bronchiectasis

The abnormal and permanent dilatation of bronchi is called Bronchiectasis.

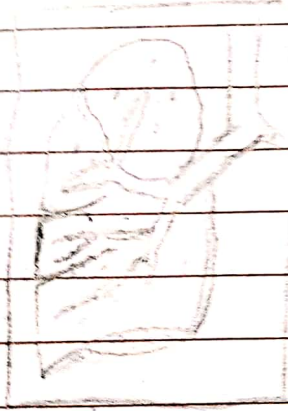
Clinical Consequences Chronic recurrent infection and pooling of secretion in dilated airways.

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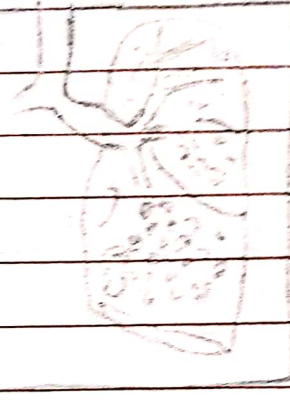
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Normal lungs



Bronchiectasis

Etiology =>

It is the result of chronic infection which result parenchymal destruction.

Lung lasting bronchial obstruction due to bronchial tumors or foreign body.

=> A Cyclic fibrosis

Bronchial obstruction and infection due abnormally

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Clinical manifestations

Haemoptysis

Dyspnoea

Episodic fever
* wheezing

* upper respiratory
infection.

⇒ Diagnosis

Clinical

⇒ Radiology, Chest XRs

* Mild Disease

* Sputum culture

* Lung function.

Treatment

Eliminate Cause

Control infection

Chest physical therapy

Bronchodilators

Antibiotics

End *

