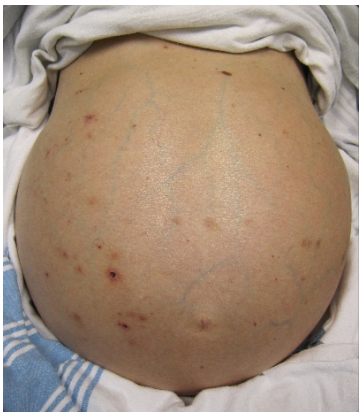
Table 9: OSCE station distribution of different subjects

BLOCK-Q (TOTAL STATIONS=20 and 6 marks/station)					
Subjects	OSCE stations	Viva stations	Short cases	Logbook and history books (1-station)	Structured Long case- 30 marks)
Medicine/neurology/ Gastroenterology	4	1	2	Paediatrics	Paediatrics
Paediatrics	1	1	1		
Surgery/neurosurgery/ Paediatric surgery	5	1	1		
Psychiatry	1	1	0		
Total	11	4	4	1	1

Day 2



1 ascites image
Diagnose
3 causes
3 drugs for medical management

Drugs
* Diuretics
-Spironolactone is the drug of choice
- can be combined with a loop diuretic e.g furosemide

Treatment of refractory ascites
(Diuretic resistant ascites)
- Paracentesis
- TIPSS

Causes of Ascites

Portal HTN-related Ascites SAAG ≥ 1.1g/dL	Non-portal HTN-related Ascites SAAG < 1.1 g/dL
1. Cirrhosis	1. Peritonitis (e.g. tuberculosis)
2. Acute hepatitis	2. Peritoneal Carcinomatosis
3. Liver malignancy	3. Pancreatitis
4. Right-sided HF	4. Vasculitis
5. Budd-Chiari syndrome	5. Hypoalbuminemia (nephrotic syndrome)
6. Splenic vein thrombosis	6. Meig's syndrome (ovarian tumor)
7. Schistosomiasis	7. Hypothyroidism

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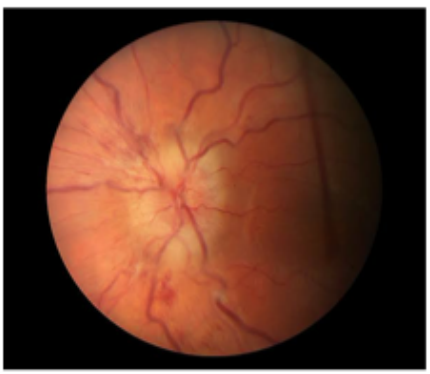
2 56 yr old patient with blurring of vision
fundoscopic image
diagnose: papillaedema
2 causes
And one investigation to confirm the cause



Papilloedema
(Bilateral optic disc swelling due to raised intracranial pressure)

One Investigation to Confirm the Cause
CT scan of brain (contrast if needed)

Two Causes

Raised intracranial pressure due to brain tumor
e.g., intracranial space-occupying lesion (glioma, metastasis)

Intracranial hemorrhage
e.g., subarachnoid hemorrhage or intracerebral bleed

If CT is normal and raised ICP is still suspected → Lumbar puncture (opening pressure measurement) after ruling out mass lesion.

(Other common causes: malignant hypertension, idiopathic intracranial hypertension, cerebral venous sinus thrombosis)

3 Barium swallow repeat

4 Examination of lower limb of a 1 yr old
(wt are the spontaneous movement of a child called) (to assess power the spontaneous movement of limb are noted) (hyperreflexia conditions)

5 3 yr old kid weight loss wasted on anti tb but no improvement hb 8 rest all normal
Diagnose celiac
Investigations
Treatment

6 3 month Child irritable born with fair hair, blue eyes, fair skin also has eczematous rash and foul mousy odour
Diagnose phenylketonuria
Hereditary pattern
Management

7 Person with nausea vomiting etc and the worst headache of his life gcs 11/15 afebrile
Diagnose SAH
Clinical features of the pathology
MEDICAL management (must mention ICU admission due to low gcs, and ABCs check blood transfusion then triple H management (hypervolemia hyperventilation and hyper ?)
Rest from book management

Day:_____ Date:_____

Station 3:

The Bird beak appearance on a barium swallow, is pathognomonic radiological sign of Achalasia.

Diagnosis:

① Barium swallow (initial imaging).
initial investigation

② Upper GI endoscopy:

③ Esophageal manometry (Gold standard).

Management:

① Laparoscopic Heller myotomy.
surgical cutting of LES muscle fibers.

② Pneumatic dilation.

3 month Child irritable born with fair hair, blue eyes, fair skin also has eczematous rash and foul mousy odour
Diagnose phenylketonuria
Hereditary pattern
Management

PKU - Phenylketonuria

Hereditary Pattern
Autosomal recessive

Caused by deficiency of phenylalanine hydroxylase (PAH)

✅ Management
1️⃣ Dietary Management (Mainstay)
Low-phenylalanine diet
Restrict high-protein foods (milk, meat, eggs, nuts)
Special PKU formula
Start as early as possible (ideally in neonatal period)
2️⃣ Tyrosine Supplementation
Tyrosine becomes an essential amino acid in PKU
3️⃣ Monitoring
Regular blood phenylalanine levels
Developmental assessment
4️⃣ Special Point
Maternal PKU → strict control before and during pregnancy (prevents fetal anomalies)

Phenylketonuria

- Autosomal recessive disorder
- Amino acid metabolism disorder
- Classic PKU - Defective phenylalanine hydroxylase
- Malignant PKU - Deficient tetrahydrobiopterin aka BH4
- impaired conversion of phenylalanine to tyrosine → tyrosine becomes nutritionally essential (classical PKU)
- Excess of phenylalanine is transformed into phenylketone metabolites (e.g., phenylpyruvate, phenylacetate, and phenyllactate) that are excreted in the urine
- Tyrosine deficiency → decreased neurotransmitter, melanin, and thyroxine synthesis
- Phenylalanine accumulation
- Musty odor (due to an increase in aromatic amino acids)
- Light skin and hair, blue eyes
- Growth restriction
- Psychomotor delay
- Seizures
- Eczema
- Diagnosis
    - quantitative measurement of plasma phenylalanine (Normal is 1mg/dL) (In PKU usually greater than 30 mg/dL)
    - Newborn screening: direct measurement of serum phenylalanine levels on 2nd–3rd day after birth (phenylalanine levels are normal at birth because of circulating maternal PAH)
    - If screening test is positive: oral tetrahydrobiopterin loading test
      If phenylalanine levels are decreased: BH4 deficiency
      If phenylalanine levels remain unchanged: PAH deficiency
    - Ferric chloride test: Identification of phenylketones in urine
- Management
    - Low phenylalanine and high tyrosine diet
    - BH4 deficiency: supplementation of BH4 and possibly levodopa and 5-hydroxytryptophan

Subarachnoid Hemorrhage

Person with nausea vomiting etc and the worst headache of his life gcs 11/15 afebrile

Diagnose SAH

Clinical features of the pathology

MEDICAL management (must mention ICU admission due to low gcs, and ABCs check blood transfusion then triple H management (hypervolemia hyperventilation and hyper ?)

Rest from book management

Causes:

- Saccular (Berry) aneurysm (most common)
- Vascular malformations
- Hematologic disturbances
- Tumors
- Traumatic hematoma

Clinical Features:

- Abrupt-onset, intensely painful "thunderclap" headache.
- Often described as the **"worst headache of my life"**,
- Loss of consciousness in 25 – 50% of cases. → Sudden transient loss of consciousness
- Signs of meningeal irritation – neck stiffness, photophobia, vomiting. Nuchal Rigidity

Diagnosis: • Retinal hemorrhages (in upto 30% pts)

Diagnosis

* Non Contrast CT - best initial test
* Lumbar Puncture - Investigation of choice

Xanthochromia seen in SAH on LP examination

* Once SAH is diagnosed, order a cerebral Angiogram. It is definitive study for detecting site of bleeding (for surgical clipping)

Treatment:

- Control blood pressure – to prevent re-bleeding.
- **Calcium channel blocker (nimodipine) – to prevent vasospasm & subsequent stroke:**
  - 30 – 60 mg IV x 5 – 14 days, then:
  - 360 mg PO x 7 days.
- Seizure prophylaxis using phenytoin.
- Surgical clipping of aneurysm.
- Insertion of platinum coil into an aneurysm via an endovascular procedure.
  - Coiling is associated with fewer complications than surgical clipping.
  - Coiling in now the procedure of first choice.

8 Hydrocephalus repeat
Signs management investigations

Medical ;Acetazolamide, furosemide
Surgical; VP shunt, ETV

📌 Hydrocephalus

Abnormal accumulation of CSF in the ventricles → ↑ intracranial pressure (ICP)

✅ Signs & Symptoms

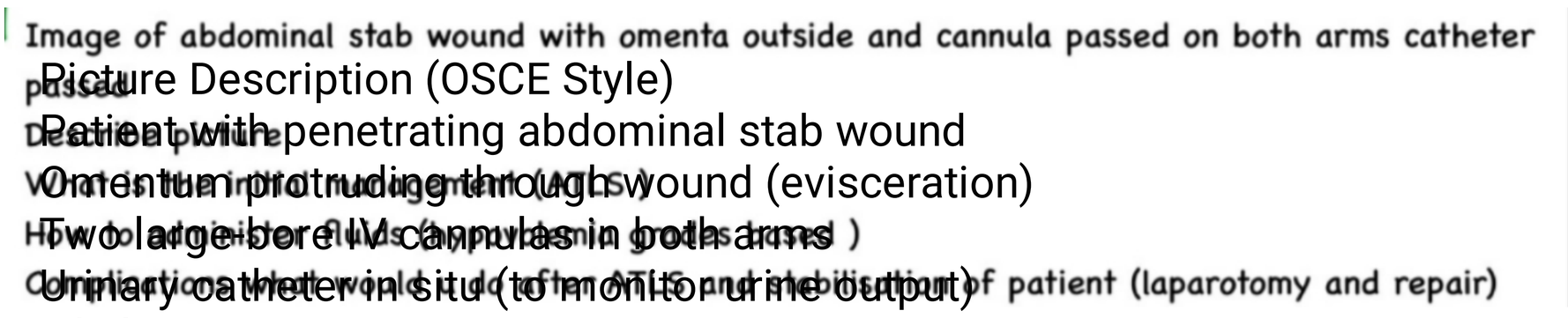
👶 In Infants (open sutures)
Enlarged head circumference
Bulging anterior fontanelle
Dilated scalp veins
“Sunset sign” (downward deviation of eyes)
Irritability, poor feeding
Vomiting
👦 Older Children / Adults
Headache (morning)
Vomiting
Blurred vision
Papilledema
Gait disturbance
↓ Consciousness (late sign)

✅ Investigations

1️⃣ Imaging (Confirmatory)
Cranial ultrasound (in infants, via fontanelle)
CT scan brain
MRI brain (best for cause & detailed anatomy)
2️⃣ Measure Head Circumference (infants)
3️⃣ Fundoscopy
Papilledema (if raised ICP)
⚠️ Lumbar puncture is contraindicated in obstructive hydrocephalus.

✅ Management

🔴 Initial (if raised ICP)
Admit & monitor
Head elevation 30°
Oxygen
Mannitol (temporary)
Treat underlying cause
🔵 Definitive Treatment
1️⃣ Ventriculoperitoneal (VP) Shunt
Most common treatment
2️⃣ Endoscopic Third Ventriculostomy (ETV)
Especially in obstructive hydrocephalus
3️⃣ Treat Cause
Tumor removal
Antibiotics (if meningitis)
Repair congenital defect



Picture Description (OSCE Style)
Patient with penetrating abdominal stab wound
Omentum protruding through wound (evisceration)
Two large-bore IV cannulas in both arms
Urinary catheter in situ (to monitor urine output)
Likely emergency trauma setting
→ This is a case of penetrating abdominal trauma with evisceration, surgical emergency.
✅ Initial Management — Advanced Trauma Life Support
Follow Primary Survey (ABCDE)
🅰 Airway + C-spine
Assess airway patency
Protect cervical spine
Intubate if needed
🅱 Breathing
Assess chest movement
Give high-flow oxygen
🅲 Circulation
Check pulse, BP, capillary refill
Control external bleeding
Insert 2 large-bore IV cannulas (14–16G)
Send blood for CBC, crossmatch, coagulation profile
🅳 Disability
Check GCS
Pupils
🅴 Exposure
Fully expose patient
Prevent hypothermia
⚠️ Cover exposed omentum with sterile saline-soaked gauze (do NOT push back).

✅ Fluid Resuscitation (Based on Hypovolemic Shock Class)

Class	Blood Loss	Pulse	BP	Management
I	<15%	Normal	Normal	Crystalloids
II	15–30%	>100	Normal	Rapid crystalloids
III	30–40%	>120	↓ BP	Crystalloids + Blood
IV	>40%	>140	Severe hypotension	Immediate blood transfusion

How to Administer Fluids
Start with Ringer’s lactate / Normal saline
Give 1–2 L bolus rapidly
If no response → Start packed RBC transfusion
Massive transfusion protocol if needed (1:1:1 ratio PRBC:FFP:Platelets)
Monitor:
Urine output (≥0.5 mL/kg/hr in adults)
BP, pulse
Lactate
✅ After ATLS & Stabilisation
🔎 Secondary Survey
Detailed abdominal exam
FAST ultrasound
CT scan (if stable)
🔴 Indications for Immediate Laparotomy
Hemodynamic instability
Evisceration (as in this case)
Peritonitis
Positive FAST with instability
✅ Definitive Management
Emergency exploratory laparotomy
Identify injured organs
Control bleeding
Repair bowel / solid organ injury
Peritoneal lavage
Close abdomen ± drain
✅ Complications
Hemorrhagic shock
Peritonitis
Sepsis
Intra-abdominal abscess
Wound infection
Adhesions

Facial nerve examination
Ramsay hunt syndrome
What happens to hearing in VII nerve palsy
UMN VS LMN. Difference
Causes of UMN (most common is stroke)
Cause of LMN (most common idiopathic)

Facial Nerve (CN VII) Examination

1️⃣ Inspection

Facial symmetry
Loss of nasolabial fold
Drooping of angle of mouth
Inability to close eye
Forehead wrinkles present or absent?

2️⃣ Motor Testing (Ask patient to:)

Raise eyebrows (forehead)
Close eyes tightly (try to open them)
Show teeth / smile
Puff out cheeks
Whistle

3️⃣ Sensory

Taste over anterior 2/3 of tongue

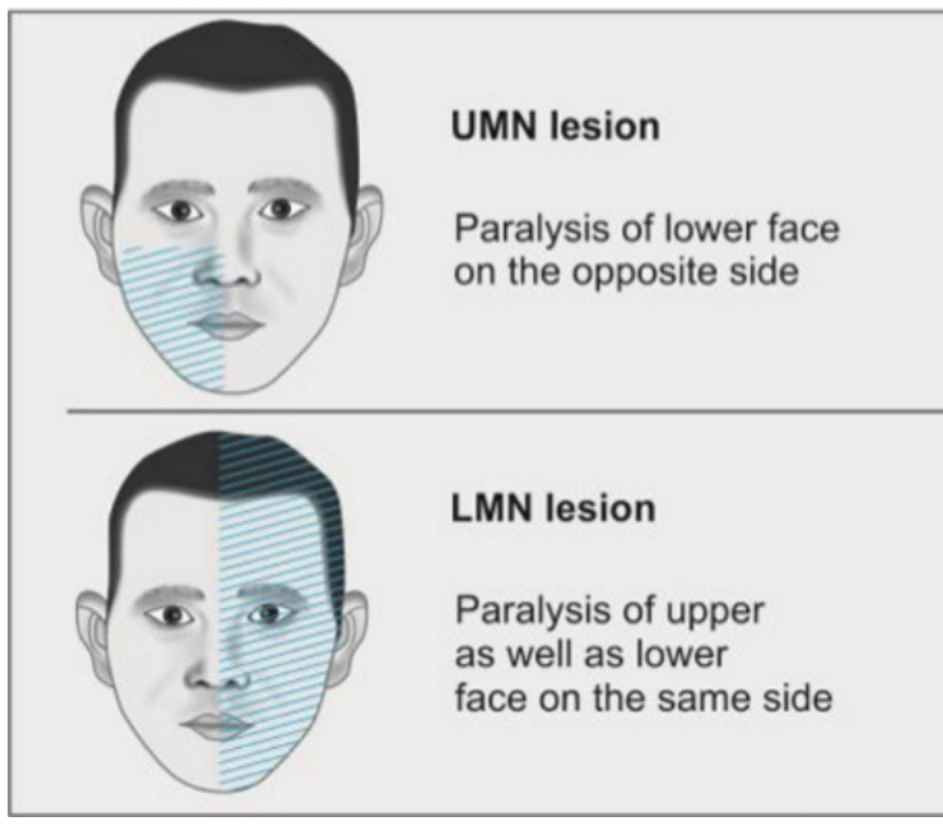
4️⃣ Other Functions

Hyperacusis (stapedius muscle)
Lacrimation & salivation

Feature	UMN Lesion	LMN Lesion
Forehead	Spared	Affected
Eye closure	Normal	Cannot close
Mouth	Weak	Weak
Side affected	Contralateral lower face	Ipsilateral whole face
Cause	Brain lesion	Nerve lesion

📌 Ramsay Hunt syndrome

Reactivation of Varicella-zoster virus in geniculate ganglion
LMN facial palsy + painful vesicular rash in ear
May have:
Severe ear pain
Vertigo
Hearing loss
Treatment:
Acyclovir + Steroids



📌 What Happens to Hearing in VII Nerve Palsy?

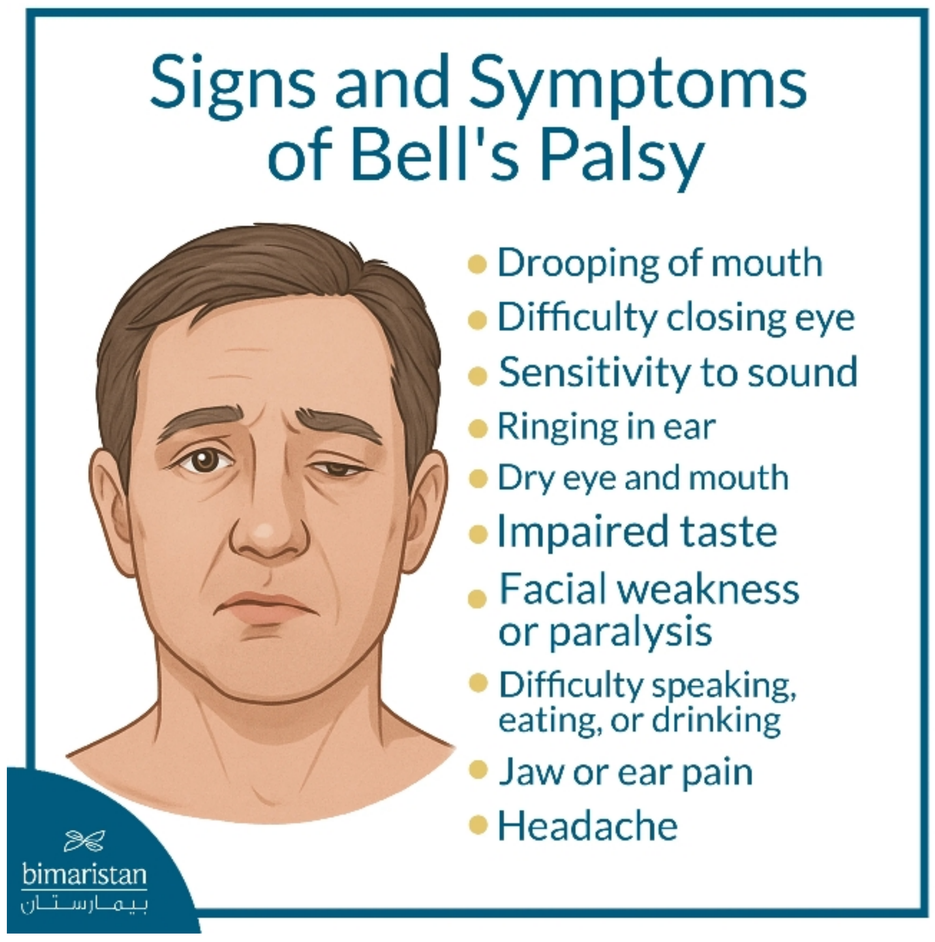
Can cause hyperacusis
(due to paralysis of stapedius muscle → sound perceived as louder)
In Ramsay Hunt → may also cause sensorineural hearing loss

Causes of UMN Facial Palsy

(Most common: Stroke)
Stroke
Brain tumor
Multiple sclerosis
Trauma

📌 Causes of LMN Facial Palsy

(Most common: Idiopathic)
Bell's palsy (most common)
Ramsay Hunt syndrome
Parotid tumor
Otitis media
Temporal bone fracture
Diabetes

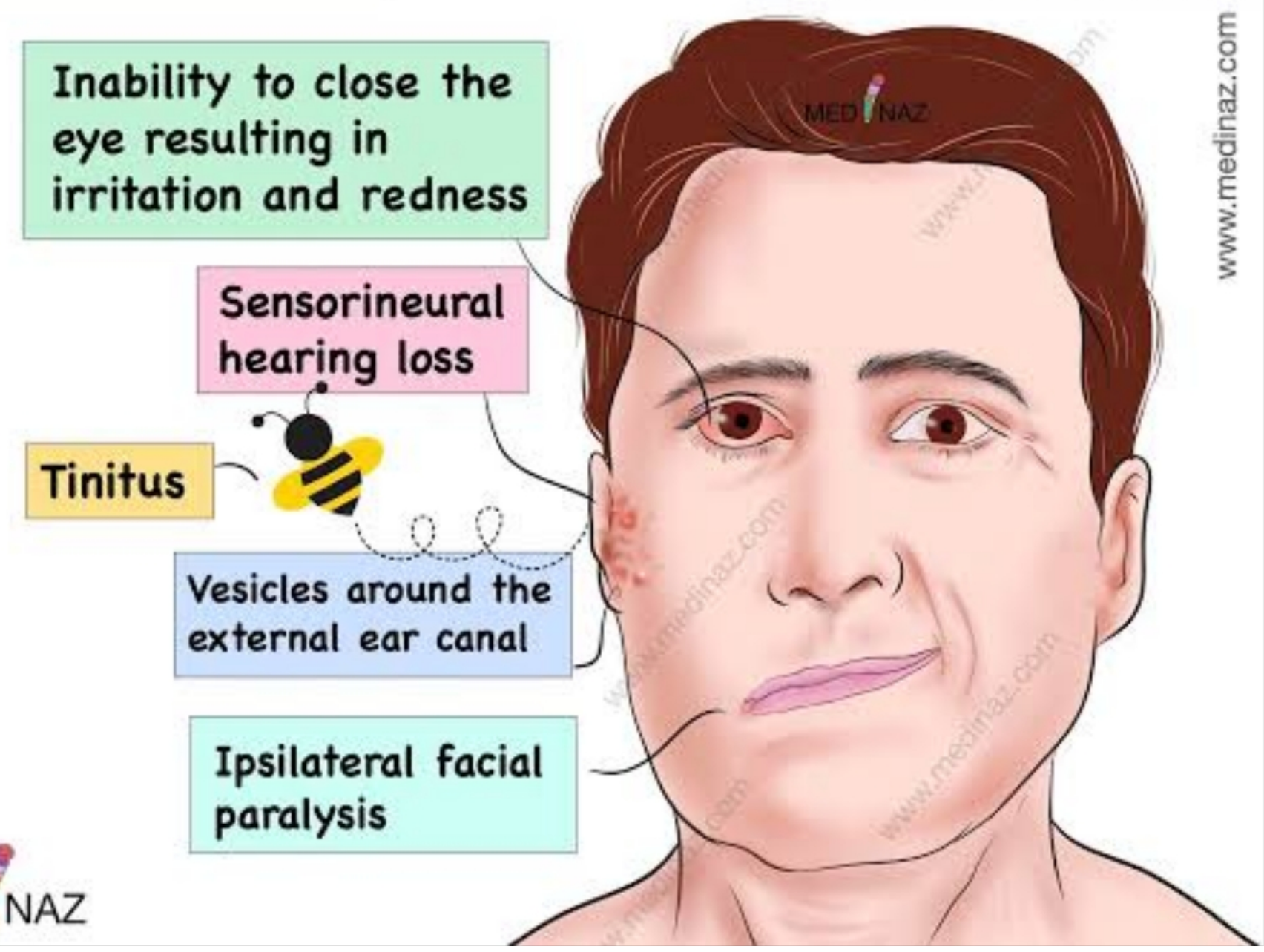


Ramsay Hunt Syndrome (Herpes Zoster Oticus)

Reactivation of dormant herpes zoster in the geniculate ganglion of facial nerve and spiral and vestibular ganglion of VIII th nerve

Treatment: Acyclovir 800mg 5 times/day

Loss of taste sensation on anterior 2/3rd of tongue

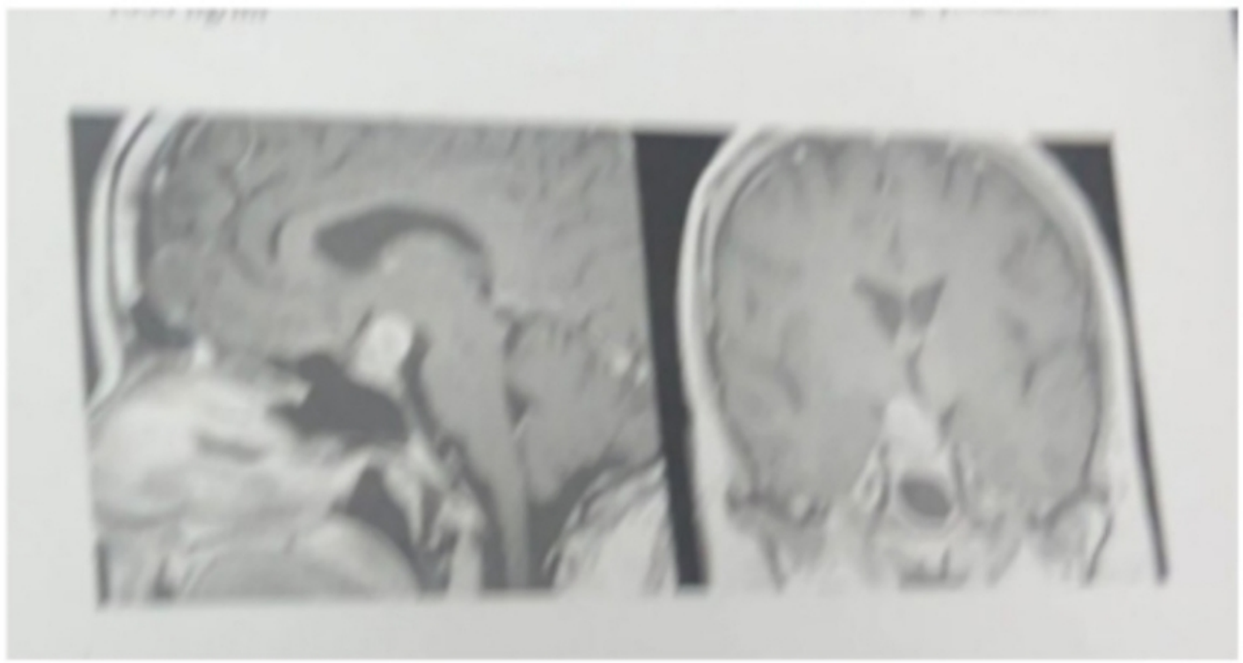


12 A 45 year old lady presented with h/o amenorhea, galactorhea, infertility, impairment of visual equity and headache, on examination she has bitemporal hemianopia. Endocrine testing prolactin 1000mg/dl

1- what is the diagnosis

2- enumerate features of prolactinoma

3- what is the most appropriate investigation of choice?



Prolactinoma

Clinical Findings

Secondary amenorrhea

Infertility

Galactorrhea

Prolactinoma can compress the optic chiasm and result in bitemporal hemianopia

📌 3️⃣ Most Appropriate Investigation of Choice

✅ MRI of brain with pituitary protocol (contrast-enhanced)

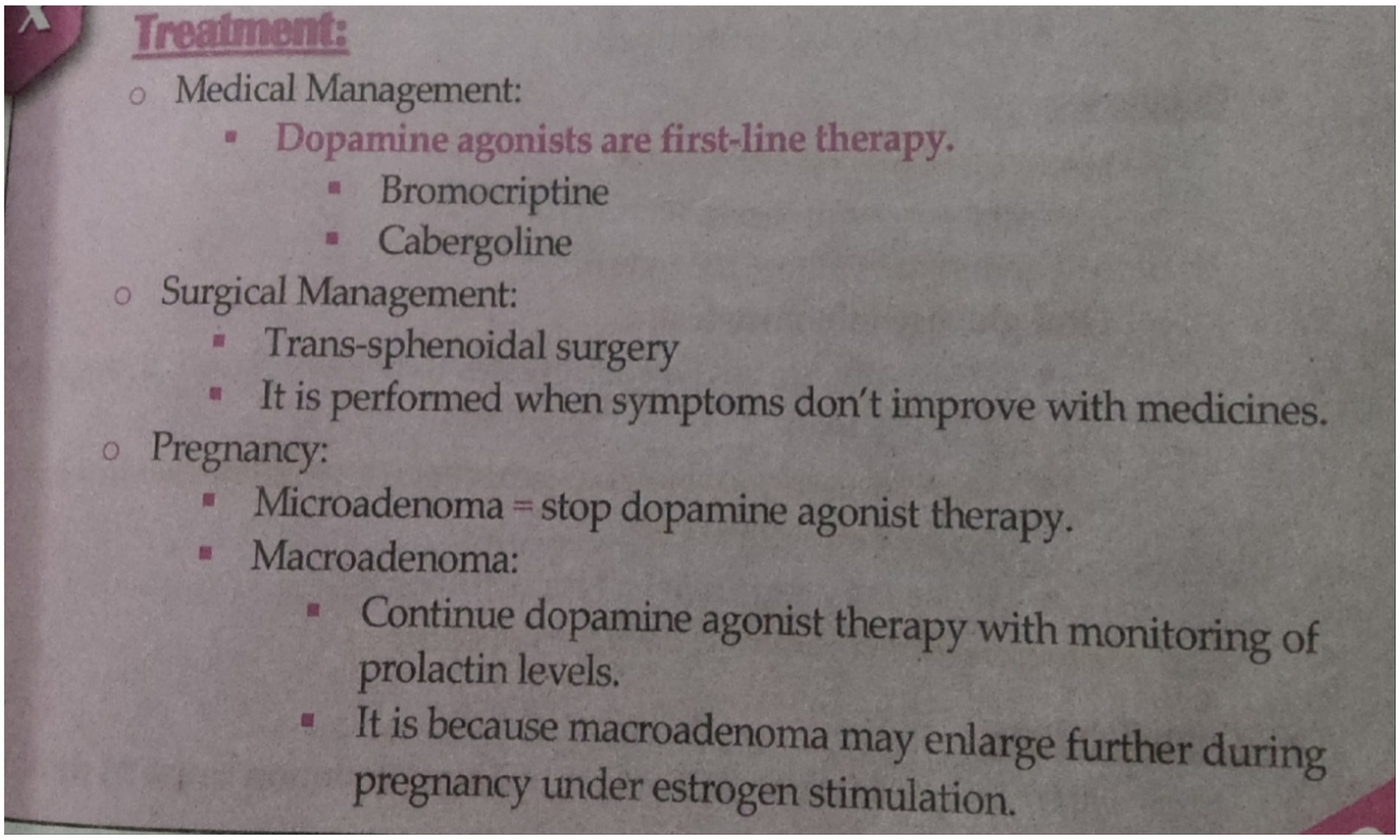
→ Best to visualize pituitary adenoma and optic chiasm compression.

Investigations

Serum prolactin levels

MRI of Pituitary gland

Visual field testing if MRI shows compression of optic chiasm



Treatment:

- Medical Management:
  - Dopamine agonists are first-line therapy.
    - Bromocriptine
    - Cabergoline
- Surgical Management:
  - Trans-sphenoidal surgery
  - It is performed when symptoms don't improve with medicines.
- Pregnancy:
  - Microadenoma = stop dopamine agonist therapy.
  - Macroadenoma:
    - Continue dopamine agonist therapy with monitoring of prolactin levels.
    - It is because macroadenoma may enlarge further during pregnancy under estrogen stimulation.

13 Instrument:

Proctoscope

Name it and parts.

Method of sterilization

Diagnostic indications

Therapeutic indications

Instrument Identification

Proctoscope

Used for visual examination of the anal canal and rectum.

✅ Parts of Proctoscope

1️⃣ Outer hollow metal tube

2️⃣ Obturator (blunt inner introducer)

3️⃣ Handle

4️⃣ Light source attachment (fiber-optic / external light cable)

5️⃣ Sometimes side window for procedures

✅ Method of Sterilization

If metal reusable type → Autoclaving (steam sterilization)

If fiber-optic/lighted → According to manufacturer:

High-level disinfection (e.g., glutaraldehyde)

Disposable plastic types → Single use only

✅ Diagnostic Indications

Hemorrhoids

Fissure in ano

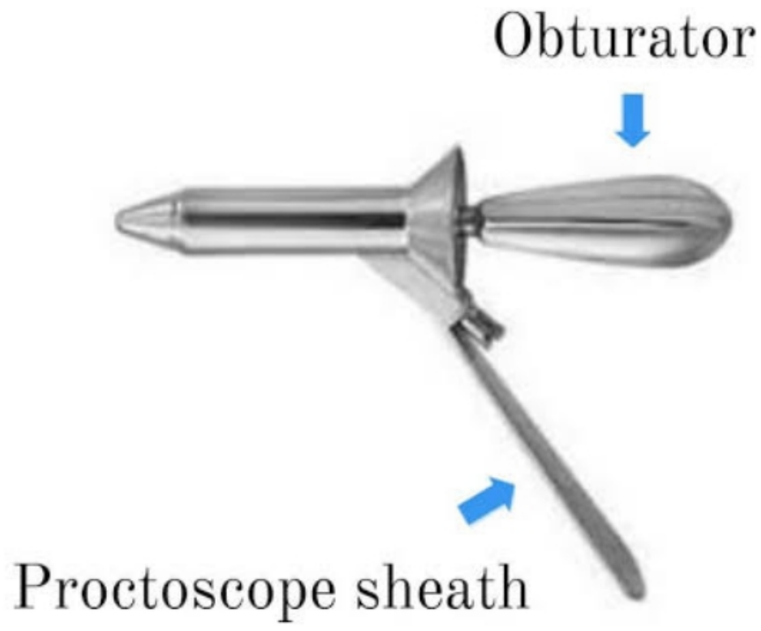
Fistula opening

Rectal bleeding

Proctitis

Rectal polyp

Biopsy of suspicious lesion



✅ Therapeutic Indications

Injection sclerotherapy for hemorrhoids

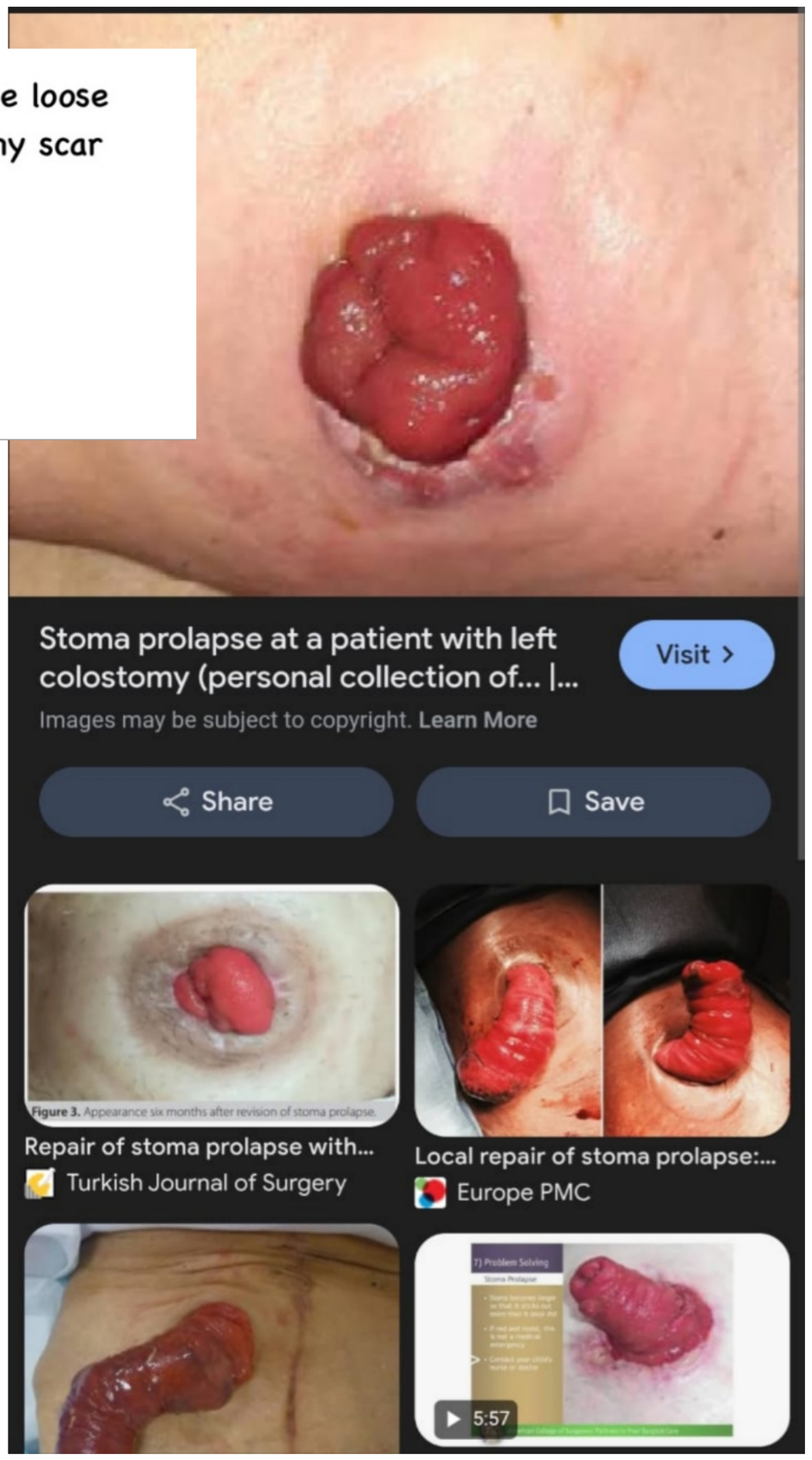
Rubber band ligation

Polypectomy (small polyps)

Removal of rectal foreign body (low)

Control of bleeding

14 Picture of gut loop outside abdomen from colostomy site with the loose hanging end stapled and necrosed with ulcer also note laparotomy scar
Describe (stoma prolapse)
What procedure is this colostomy /ileostomy
Complication of this procedure
And complication of the condition itself (prolapse complications)
Management? Ileostomy refashioning (put the loop back in)



Patient with stoma prolapse: gut loop protruding excessively from colostomy site
Stapled, necrosed, ulcerated distal part
Laparotomy scar visible → prior abdominal surgery
Gut appears edematous and ischemic in places
Key point: This is a stoma prolapse with local ischemia/ulceration.

✅ Type of Procedure

Colostomy or Loop Ileostomy
Based on location: If large intestine, colostomy; if small intestine, ileostomy
Typically loop type: stoma with two openings (proximal and distal)

✅ Complications of the Procedure (Stoma Creation)

Stomal prolapse (as in picture)
Stomal retraction
Peristomal skin irritation
Parastomal hernia
Necrosis / ischemia of stoma
Stomal stenosis

✅ Complications of the Condition Itself (Prolapsed Stoma)

Ischemia / necrosis
Ulceration
Bleeding
Infection
Obstruction

✅ Management

1️⃣ Initial / Conservative

Reduce edema with manual reduction
Apply osmotic or sugar dressings to reduce swelling
Supportive stoma appliance
Monitor perfusion

2️⃣ Surgical (Definitive)

Stoma refashioning / revision
Laparotomy if needed
Reduce prolapsed loop into abdominal cavity
Recreate stoma with healthy bowel
Ensure good blood supply and fixation

3️⃣ Emergency Indication

Necrotic / ischemic stoma → urgent revision

Stoma prolapse :-

	Ileostomy	Colostomy
•	RIF	LIF.
•	Liquid / Semi-solid	More solid

Complication:-

1. Ischemia / Necrosis
2. Obstruction
3. Ulceration.

Tx:-
- Cx → manual reduction using cold compression
- Emergency → if Necrosis ↓ Resection of dead bowel & refashioning of stoma.

Complications of stoma (ileostomy, colostomy):

i. Diarrhoea is more common in ileostomy because of passage of unabsorbed food particles and it may cause electrolyte imbalance and malnutrition.

ii. Excoriation of skin: when the feces (especially in ileostomy) touch the skin they cause severe excoriation of skin.

iii. **Prolapse:** Ileum or colon can prolapse through stoma.

iv. Retraction: Stoma can retract into peritoneal cavity causing contamination of peritoneal cavity with faces and peritonitis.

v. Stenosis of orifice (obstruction).

vi. **Parastomal hernia:** A loop of bowel can herniate along the side of stoma.

vii. Bleeding.

viii. Spillage of contents (feces) into the wound causes infection.

15

Eating disorder

Define

Types (bulimia nervosa anorexia binge eating disorder)

Difference between bulimia and anorexia

Causes

Which of these three is associated with DM treatment

(CBT COUNSELLING SSRI SNRI)

Body weight	Significantly low	Usually normal/ overweight
Eating pattern	Severe restriction	Binge + compensatory purging
Fear of weight gain	Intense	Present, but not always leading to starvation
Physical signs	Lanugo hair, amenorrhea, hypotension	Dental erosion, calluses on hands (Russell's sign), electrolyte imbalance

Eating disorder:

A psychiatric condition characterized by persistent disturbances of eating behavior or weight-control behavior, leading to altered food intake, preoccupation with body weight/ shape, and associated physical or psychological complications.

Types

Anorexia nervosa

Restriction of food intake → low body weight; intense fear of gaining weight; distorted body image

Bulimia nervosa

Recurrent binge eating followed by compensatory behavior (vomiting, laxatives, excessive exercise); usually normal or slightly above normal weight

Binge eating disorder (BED)

Recurrent binge eating without compensatory behavior; often overweight/obese; feelings of shame/guilt

Causes / Risk Factors

Biological: Genetic predisposition, neurotransmitter imbalance (serotonin, dopamine)

Psychological: Low self-esteem, perfectionism, anxiety, trauma

Social/Cultural: Media pressure, societal standards of beauty

Medical: Some medications can trigger binge-eating behavior

Association with Diabetes Treatment

Binge eating disorder can be associated with insulin therapy / diabetes management due to weight concerns and disordered eating patterns.

✅ Management

1️⃣ Psychological / Behavioral

Cognitive Behavioral Therapy (CBT) → first-line

Family-based therapy (especially in adolescents)

Counseling and psychoeducation

2️⃣ Pharmacological

SSRIs (e.g., fluoxetine) → mainly for bulimia nervosa and comorbid depression/anxiety

SNRIs occasionally for BED

3️⃣ Nutritional

Supervised weight restoration

Dietitian support

14

Man with fever chill rigor not in right state of mind neck is supple (cannot hold up)
splenomegaly 3cm
Diagnose cerebral malaria
Investigation
Treatment
And preventive drug in pregnant lady (~~primaquine~~)

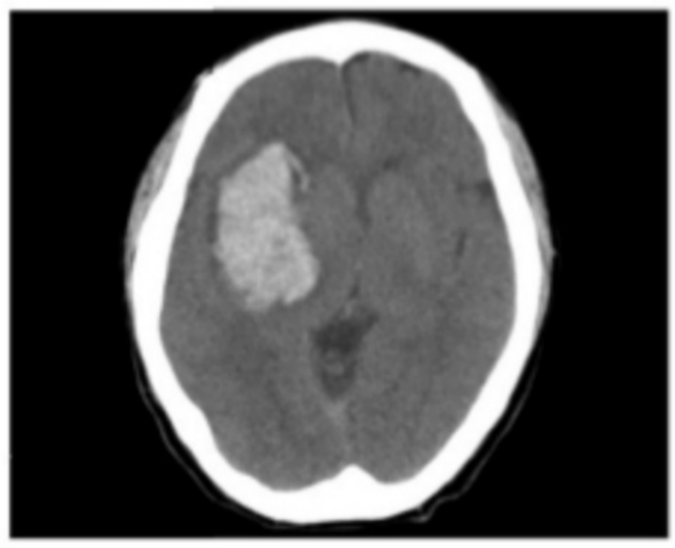
Diagnosis: Cerebral malaria
Severe complication of Plasmodium falciparum malaria
CNS involvement → altered consciousness, seizures

✅ Investigations
Peripheral blood smear (thick and thin):
Thick smear: confirms malaria parasite
Thin smear: species identification
Rapid diagnostic test (RDT): detects PfHRP2 antigen (if smear not available)
Other supportive tests:
CBC → anemia, thrombocytopenia
LFTs, renal function → assess organ involvement
Blood glucose → rule out hypoglycemia

✅ Treatment
1️⃣ Severe/Cerebral Malaria (ICU Admission)
Admit to ICU
ABC monitoring: airway, breathing, circulation
IV Artesunate (first-line WHO recommendation)
Alternative: IV quinine if artesunate unavailable
2️⃣ Supportive Care
Control seizures (benzodiazepines)
Maintain hydration and electrolytes
Monitor for hypoglycemia, anemia, renal failure
3️⃣ Complications Management
Treat anemia, renal failure
Monitor intracranial pressure if comatose

✅ Malaria Prophylaxis in Pregnancy
First trimester: Chloroquine (if sensitive area)
Second/third trimester:
Intermittent preventive therapy with sulfadoxine-pyrimethamine (IPTp-SP)
⚠️ Primaquine is contraindicated in pregnancy (risk of hemolysis in G6PD deficiency in fetus)
Note: Primaquine is used for radical cure of P. vivax / P. ovale (to eliminate liver hypnozoites) in non-pregnant adults.

19 Person on warfarin present with weakness of limbs
Image was ct and X-ray chest (in ct was right side hemorrhage and in X-ray was stent in heart)
What is the diagnosis
Most appropriate investigation confirm the underlying cause
Management steps



Warfarin Induced intracerebral hemorrhage

Patient on warfarin (anticoagulant)
Presents with weakness of limbs → acute neurological deficit
CT brain: Right-sided hemorrhage
Chest X-ray: Cardiac stent
✅ Diagnosis: Warfarin-induced intracerebral hemorrhage
Spontaneous intracerebral hemorrhage (ICH) due to over-anticoagulation
Risk factors: high INR, elderly, hypertension, concurrent antiplatelet therapy
✅ Most Appropriate Investigation to Confirm Underlying Cause
Prothrombin Time (PT) with INR
INR / PT → confirm excessive anticoagulation
CBC → check for anemia / platelet count
Imaging:
Non-contrast CT brain → confirms hemorrhage
MRI/CT angiography only if underlying vascular malformation suspected
In this case, CT already shows hemorrhage; lab confirms warfarin excess
✅ Management Steps
1️⃣ Initial Stabilization (ABC + ICU Admission)
Airway, Breathing, Circulation
Admit to ICU / high-dependency unit
Monitor neurological status (GCS, pupils, limb power)
2️⃣ Reverse Anticoagulation
Vitamin K IV (slow) → start immediately
Prothrombin Complex Concentrate (PCC) or Fresh Frozen Plasma (FFP) for rapid reversal
3️⃣ Supportive Care
Monitor BP → target systolic <140 mmHg
Control intracranial pressure (head elevation, mannitol if needed)
Seizure prophylaxis if indicated
4️⃣ Neurosurgical Consideration
Surgical evacuation if:
Large hemorrhage
Midline shift
Deteriorating GCS
5️⃣ Manage Complications
Avoid further anticoagulation until safe
Monitor for re-bleeding, edema, infection

16 Counselling the wife of a man who is diagnosed with lung cancer advanced stage with metastasis and bad prognosis

Introduce

Ask if man can be available

Tell about condition

Empathize

Then tell treatment

Surgery plus chemo

Answer any question that the wife may ask

Confirm the understanding

Also tell if the family to bring the patient with them next visit to consult with surgeon and oncology team

Thank you

A somewhat similar pic of dupuytren's contracture was given.
Scenario: a person presented with abdominal distension and hemetemesis.
Identify.
2 causes.
2 investigations.

1. Identify

The hand condition is **Dupuytren's Contracture**.
In this specific clinical context, it is a peripheral sign of **Chronic Liver Disease (Cirrhosis)**.
The hematemesis (vomiting blood) suggests esophageal varices, and the abdominal distension suggests ascites, both of which are complications of portal hypertension.

---

2. Two Causes

While Dupuytren's can be idiopathic or hereditary, in the context of liver disease and the symptoms described, the primary causes/associations are:

- **Chronic Alcohol Use:** This is the most common association between Dupuytren's and liver pathology.
- **Cirrhosis:** Leading to metabolic changes that trigger fibroblast proliferation and collagen deposition in the palmar fascia.

---

3. Two Investigations

To work up the underlying cause of the hematemesis and distension (the liver disease), you would perform:

- **Upper GI Endoscopy:** To identify and potentially treat the source of bleeding (e.g., banding esophageal varices).
- **Abdominal Ultrasound (with Doppler):** To confirm the presence of ascites, evaluate liver morphology (cirrhosis), and check for portal vein patency/hypertension.

LFTs

16 Counselling the wife of a man who is diagnosed with lung cancer advanced stage with metastasis and bad prognosis

Introduce
Ask if man can be available
Tell about condition
Empathize
Then tell treatment
Surgery plus chemo
Answer any question that the wife may ask
Confirm the understanding
Also tell if the family to bring the patient with them next visit to consult with surgeon and oncology team
Thank you

17

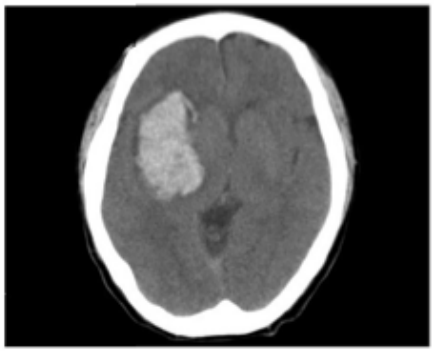
Man with fever chill rigor not in right state of mind neck is supple (cannot hold up)
splenomegaly 3cm
Diagnose cerebral malaria
Investigation
Treatment
And preventive drug in pregnant lady (primaquine)

18

Paeds logbook + paeds history pattern + developmental milestones + epi

---

19 Person on warfarin present with weakness of limbs
Image was ct and X-ray chest (in ct was right side hemorrhage and in X-ray was stent in heart)
What is the diagnosis
Most appropriate investigation confirm the underlying cause
Management steps



Developmental Milestones: Birth to 5 years

See https://www.med-u.org/the-library/developmental-milestones for an interactive version of this table.

AGE	GROSS MOTOR	FINE MOTOR	COMMUNICATION/SOCIAL	COGNITIVE/ADAPTIVE
2 mos.	Lifts head/chest when prone	Eyes track past the midline	• Alerts to sound • Social (reciprocal) smile	Recognizes parent
4 mos.	Rolls front to back	Grasps a rattle	• Laughs • Soothed by parent's voice	Orients head to direction of a voice
6 mos.	Sits with little or no support	• Reaches with one hand • Transfers objects	• Babbles • Developing stranger anxiety	Feeds self
9 mos.	Pulls to stand	• Developing immature pincer grasp • Bangs two objects together	• Says "mama/dada" indiscriminately • Waves bye-bye	Plays gesture games (e.g., pat-a-cake)
12 mos.	Stands/walks alone	Fine pincer grasp	• One word other than "mama"/"dada" • Follows one-step commands with a gesture	Points to desired object
15 mos.	Stoops and recovers	Scribbles in imitation	Uses 3–5 words	• Uses spoon and cup • Turns pages in a book
18 mos.	Runs well	Builds a tower of 3 cubes	Points to 1–3 body parts	"Helps" in the house
24 mos.	• Throws ball overhand • Kicks a ball	Copies drawing a line with crayon	• Speaks in 2-word combinations • ≥ 50-word vocabulary • Parallel play	Removes an article of clothing
36 mos.	Pedals a tricycle	Copies a circle	• Speaks in 3-word sentences • 75% of language is intelligible to a stranger	Brushes teeth with help
48 mos.	Hops	Copies a square or cross	• 100% of language is intelligible to a stranger • Plays cooperatively with a group	Knows 4 colors
60 mos.	Skips	Copies a triangle	• Defines simple words • Uses 5-word sentences	Dresses self

S. NO	DUE AGE	VACCINATION	AGAINST DISEASE
1	At birth	1. BCG 2. Hep-B 3. OPV 0	TB Hepatitis B Polio
2	At 6 weeks (1.5 months) PORP	1. Pentavalent-I 2. OPV-I 3. ROTA-I 4. PCV-I	Diphtheria, Pertussis, Hepatitis B, tetanus and Hib. Polio Rota virus (diarrhea) Pneumococcal disease
3	At 10 weeks (2.5 months) PORP	1. Pentavalent-II 2. OPV-II 3. ROTA-II 4. PCV-II	Diphtheria, Pertussis, Hepatitis B, tetanus and Hib. Polio Rota virus (diarrhea) Pneumococcal disease
4	At 14 weeks (3.5 months) PDIP	1. Pentavalent-III 2. OPV-III 3. IPV-I 4. PCV-III	Diphtheria, Pertussis, Hepatitis B, tetanus and Hib. Polio Polio Pneumococcal disease
5	At 9 months MI	1. Measles rubella-I (MMR) 2. IPV-II	Measles mumps and rubella Polio
6	At 15 months	1. Measles rubella-II (MMR)	Measles mumps and rubella

Child with severe dehaydration , diarrhea watery and vomiting, sunken eyes, with decreased skin turgor, dx (diarrhea with severe dehydration, tx plan) give iv fluids and doses according to age..

uid Replacement Doses (WHO / Pediatric Guidelines)

Age / Weight	Initial Bolus	Total 1st 4 hrs	Notes
<12 months / <10 kg	20 mL/kg IV	100 mL/kg over 4 hrs	Rapid correction if shock; reassess after each bolus
1–5 yrs / 10–20 kg	20 mL/kg IV	100 mL/kg over 4 hrs	Can give 2–3 boluses if in shock
>5 yrs / >20 kg	20 mL/kg IV	5 L over 4–6 hrs	Adjust for ongoing losses

Child with watery diarrhea + vomiting
Signs of severe dehydration: sunken eyes, poor skin turgor, lethargy
✅ Diagnosis: Diarrhea with severe dehydration (WHO classification)
✅ Management Plan
1️⃣ Immediate Goals
Restore circulation (shock if present)
Correct dehydration
Replace ongoing losses
Maintain electrolyte balance
2️⃣ IV Fluid Therapy
Step 1: Assess Severity
Severe dehydration → IV fluid needed
Signs: lethargy/unconscious, sunken eyes, very poor skin turgor, unable to drink
Step 2: Choice of Fluid
Ringer’s Lactate (RL) or 0.9% Normal Saline
Avoid hypotonic fluids initially
Stepwise:
Shock → rapid 20 mL/kg IV bolus over 15–30 min, repeat if needed
Severe dehydration → remaining calculated over 4 hrs
Then switch to oral rehydration solution (ORS) once able to drink
4️⃣ Ongoing Losses
Replace ongoing stool/vomiting losses: 10 mL/kg ORS per loose stool
5️⃣ Additional Management
Zinc supplementation (10–20 mg/day for 10–14 days)
Treat underlying cause if cholera suspected
Monitor vitals, urine output, electrolytes

Achalsia
Name of the investigation
Findings
Diagnosis/ Differentials
Other investigations
Treatment/how will you manage this patient

📌 Achalasia

Definition:

A disorder of the lower esophageal sphincter (LES) and esophageal motility → impaired LES relaxation + absent peristalsis → dysphagia, regurgitation.

✅ 1️⃣ Investigation of Choice

Barium swallow

Most commonly used first-line investigation

✅ 2️⃣ Typical Findings

“Bird beak” appearance → tapering of distal esophagus

Dilated proximal esophagus

Stasis of contrast in esophagus

Smooth, symmetric narrowing at LES

✅ 3️⃣ Diagnosis / Differentials

Diagnosis: Achalasia based on clinical features + barium swallow ± manometry

Differentials:

Secondary achalasia (pseudoachalasia): malignancy at gastroesophageal junction

Chagas disease (Trypanosoma cruzi)

Esophageal stricture

Esophageal cancer

✅ 4️⃣ Other Investigations

Esophageal manometry (Gold standard)

Confirms absent peristalsis

High LES pressure, incomplete relaxation

Upper GI Endoscopy (OGD)

Rule out pseudoachalasia, malignancy, stricture

✅ 5️⃣ Treatment / Management

Stepwise approach:

1️⃣ Medical (first-line in poor surgical candidates)

Calcium channel blockers (nifedipine) → ↓ LES pressure

Nitrates (isosorbide dinitrate) → ↓ LES pressure

Mainly temporary symptomatic relief

2️⃣ Endoscopic

Pneumatic balloon dilation → stretches LES

Botulinum toxin injection → relaxes LES (short-term, especially elderly)

3️⃣ Surgical

Heller’s myotomy (laparoscopic) ± partial fundoplication → definitive

Considered in young patients or failed dilation

4️⃣ Supportive / Nutritional

Small, frequent meals

Soft diet

Postural maneuvers (head elevated during feeding)

Surgical instruments (langan bag retractor, babcoks forecps, scalpel)

Babcock Forceps

These are specialized, non-perforating forceps used to grasp delicate structures without crushing them. You can recognize them by their flared, rounded, and fenestrated (open) tips.

Langenbeck Retractor

Often called a "Right-Angle Retractor," this is a handheld tool used to hold back the edges of an incision.

Scalpel

The scalpel is the primary instrument for cutting and dissecting tissue. It consists of a reusable handle (often a #3 or #4) and a disposable blade.

Identify - Kaposi Sarcoma

Kaposi Sarcoma

Cause

Immunosuppresive drugs
HIV/ AIDS
HHV8 Endemic areas

Opportunistic diseases in aids/hiv

Herpes Simplex (HSV)
Cytomegalovirus (CMV)
Kaposi Sarcoma
Progressive Multifocal Leukoencephalopathy (PML)
Mycobacterium Avium Complex (MAC)
Tuberculosis (TB)
Salmonella Septicemia
Pneumocystis Pneumonia (PCP)
Candidiasis (Thrush)
Cryptococcal Meningitis
Toxoplasmosis
Cryptosporidiosis

2 Opportunistic Diseases in HIV/ AIDS

CD4 Range	Opportunistic Infections / Diseases
<500 cells/µL	Oral candidiasis, herpes zoster, TB
<200 cells/µL	Pneumocystis jirovecii pneumonia (PCP), Kaposi sarcoma
<100 cells/µL	Toxoplasmosis, Cryptococcal meningitis, CMV retinitis
<50 cells/µL	Mycobacterium avium complex (MAC), progressive multifocal leukoencephalopathy (PML)

Cd4 stands for - Cluster of Differentiation 4.

Importance

(each level and the corresponding disease that occurs)
Normal Range: 500 to 1,500 cells/mm³.
Immune Impairment: 200 to 500 cells/mm³.
AIDS Diagnosis: Below 200 cells/mm³

< 200 → Cryptococcal meningitis
< 100 → Toxoplasmosis
< 50 → Primary CNS Lymphoma and PML

Transmission rate of hiv from an untreated mother baby/from a treated mother to a baby

Untreated Mother (No Intervention)
Overall Risk: 15% to 45%.
During Pregnancy & Labor: Approximately 15% to 30%.
Through Breastfeeding: Adds an additional 10% to 20% risk if breastfeeding is prolonged.

Treated Mother (Full Intervention)
Overall Risk: Less than 1% to 2%.
Breastfeeding (with ART): 0.1% per month

Drugs used in hiv

NRTI → Tenofovir, Abacavir, Zidovudine, Lamivudine
NNRTI → Efavirenz, Etravirine
Protease Inhibitors (PIs)→ Atazanavir, Darunavir

Station 2
Abdominal examination

Station 3
Sensory motor examination of trigeminal nerve

Station 4
Ischemic stroke (written repeat)

Station 5
Lower limb and motor examination in 1 month old
How will u asses power of muscle in baby(spontaneous movements)
Gbs
Bacterial meningitis (hyperreflexia)

Station 6
Haemorrhagic stroke (repeat)

Station 8
Ocd (opd setting)
Introduce yourself
Build repo/trust
Then proceed to ask pt about history of disease
Reassure pt that what he is going through is hard.
How will you differentiate Ocd from other psychiatric illnesses

⭐ Examiner's Checklist Points for OCD Counseling

- Defined obsession & compulsion
- Gave examples
- Explained CBT (ERP)
- Mentioned SSRIs
- Reassured patient
- Assessed suicide risk
- Used empathetic language

OCD is differentiated by ego-dystonic intrusive obsessions, compulsive behaviors performed to relieve anxiety, and preserved insight, unlike psychotic or personality disorders

Herpetiformis dermatitis

Dermatitis herpetiformis is a chronic, intensely itchy autoimmune blistering skin disorder strongly associated with Celiac disease.

🔥 Key Feature: INTENSE PRURITUS (very itchy)

📍 Distribution (Symmetrical)

- Elbows
- Knees
- Buttocks
- Back
- Scalp

🩹 Lesions

- Small grouped vesicles (like herpes — hence “herpetiformis”)
- Papules
- Excoriations (because patient scratches)
- Often you don’t see vesicles because they rupture due to scratching

Treatment

First-line drug:Dapsone
Lifelong Gluten-Free Diet

🧪 Investigations

1️⃣ Skin biopsy (gold standard)

- Subepidermal blister
- Neutrophils at dermal papillae

2️⃣ Direct immunofluorescence (MOST important test)

- Granular **IgA deposits** at dermal papillae

3️⃣ Celiac screening

- Anti-tTG antibodies
- Endomysial antibodies

Pleurectomy Counseling

📌 What is Pleurectomy?

A **pleurectomy** is a surgical procedure where part or all of the **pleura** (the lining around the lungs) is removed.

It is done to:

- Prevent recurrent pneumothorax
- Treat recurrent pleural effusion
- Manage certain cancers like **Malignant mesothelioma**

📌 Why Is It Being Recommended?

Common reasons:

1️⃣ Recurrent Pneumothorax

(Repeated lung collapse)

2️⃣ Persistent Pleural Effusion

Fluid keeps accumulating

3️⃣ Pleural Malignancy

Especially **Malignant mesothelioma**

Explain simply:

> "Removing the pleura helps the lung stick to the chest wall, preventing air or fluid from collecting again."

🏥 How Is the Procedure Done?

Two approaches:

- Open surgery (thoracotomy)
- Video-assisted thoracoscopic surgery (VATS)

Steps:

- General anesthesia
- Small incision(s)
- Remove pleural lining
- Chest drain inserted temporarily

⏳ Duration & Hospital Stay

- Surgery: 1–3 hours
- Hospital stay: 4–7 days (depending on recovery)
- Chest drain remains for a few days

⚠️ Risks & Complications

Explain clearly but calmly:

Common:

- Pain at surgical site
- Bleeding
- Infection
- Air leak

Less common but serious:

- Respiratory complications
- Recurrence
- Rarely, injury to lung or surrounding structures

📈 Benefits

✔ Prevents recurrence of pneumothorax

✔ Reduces pleural fluid reaccumulation

✔ Improves breathing

✔ May improve quality of life

📌 Alternatives (Important for OSCE)

- Chemical pleurodesis
- Chest tube drainage alone
- Observation (in mild cases)

💊 Postoperative Care

- Pain control
- Breathing exercises
- Physiotherapy
- Avoid heavy lifting for 4–6 weeks
- Smoking cessation if applicable

Station
Mood disorders
Mood stabilizers
Explain BP disorder
Suicide rate in BP disorder

Station
Pleurectomy counseling

Station
Scenario of patient with hypovolemic shock

Station
Subdural hematoma
Chronic type,
Brain atrophy bridging veins rupture
Txt burr hole (asked about the different types)

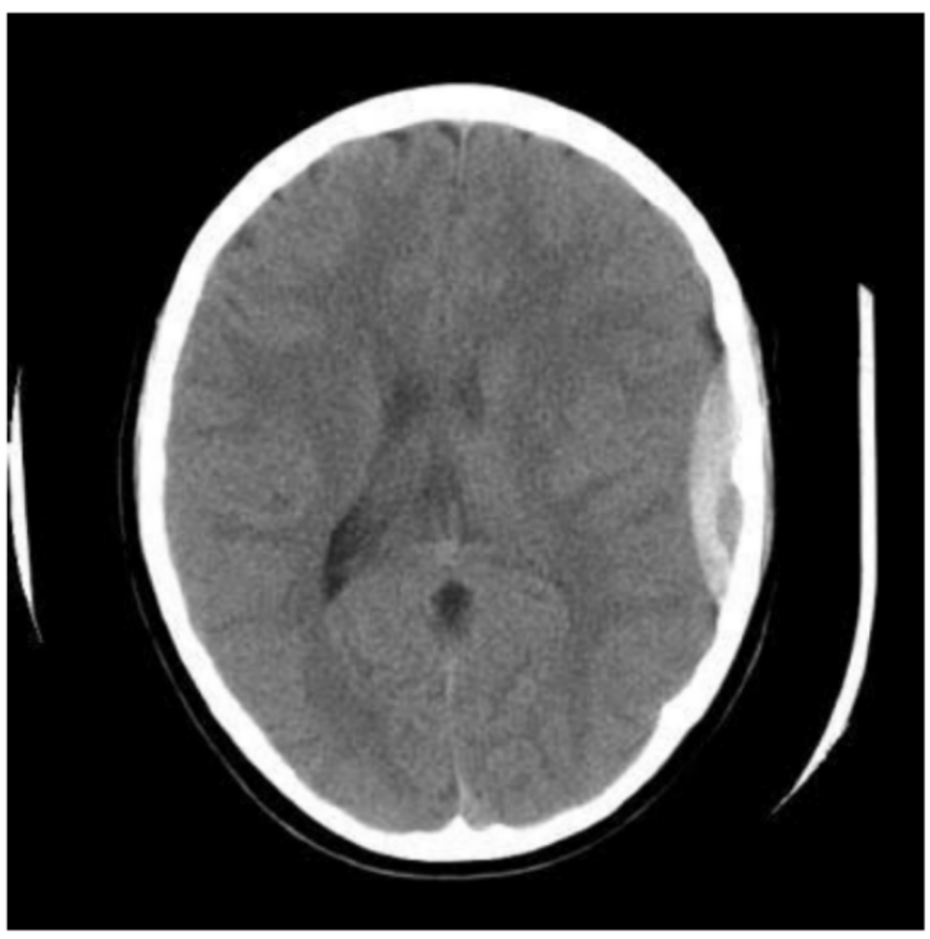
TOACS
STATION 2 (STATIC)

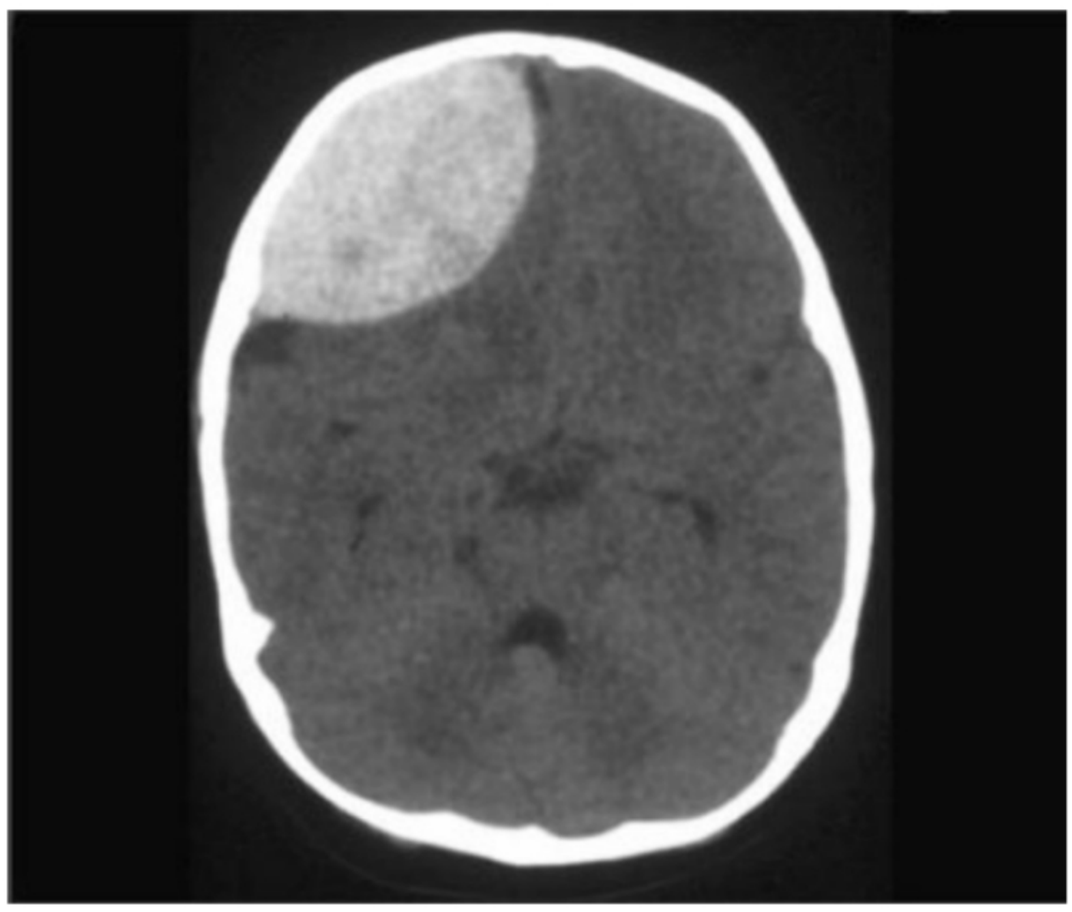
A 15-year-old boy was hit on the temple with a baseball and he became unconscious. After about ten minutes, he regained consciousness, but he soon became lethargic, and over the next two hours, he was stuporous. His pupils were unequal. Intra cranial hemorrhage was suspected. He was shifted to the radiology department for an urgent CT scan brain which shows.

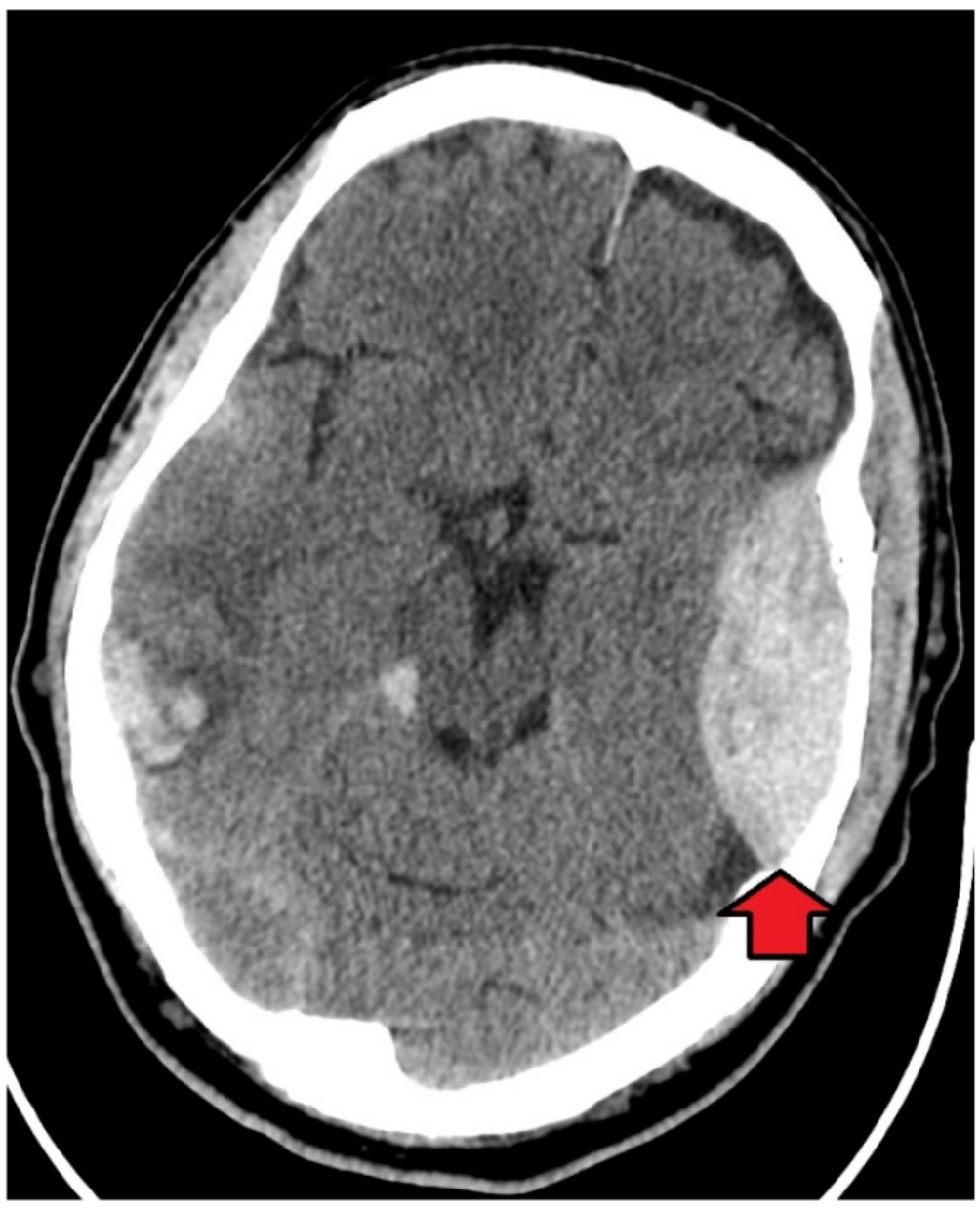
hat is the most appropriate Diagnosis (02 marks)

EPIDURAL HEMATOMA

* CT shows lentiform (biconvex), hyperdense collection bw skull and brain





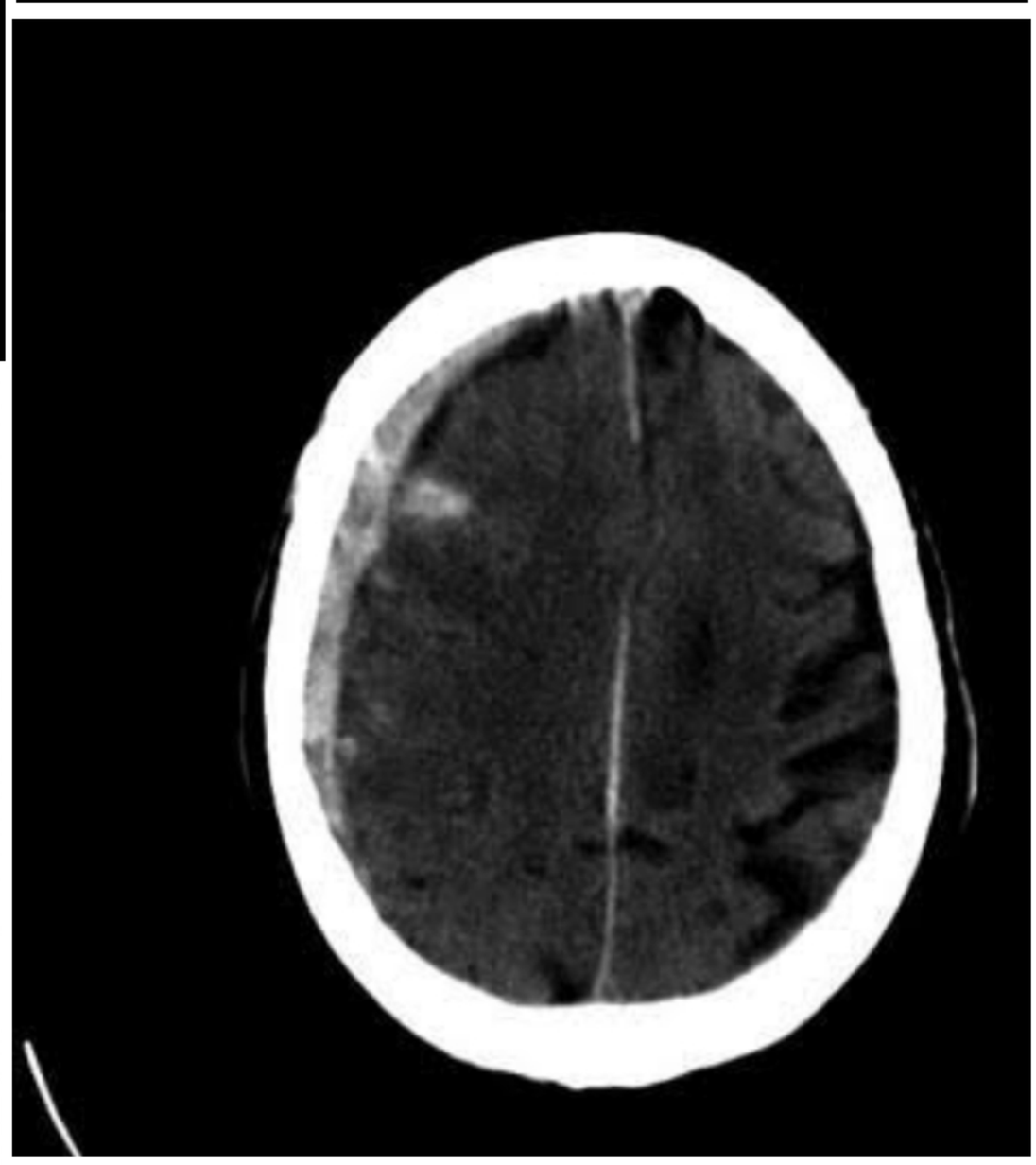


Lucid Interval

Surgical Management - Evacuation with craniotomy

Subdural Hematoma

CT shows diffuse and concave
Crescent shaped hyperdense collection



* Surgical evacuation via craniotomy or craniectomy

Station 1

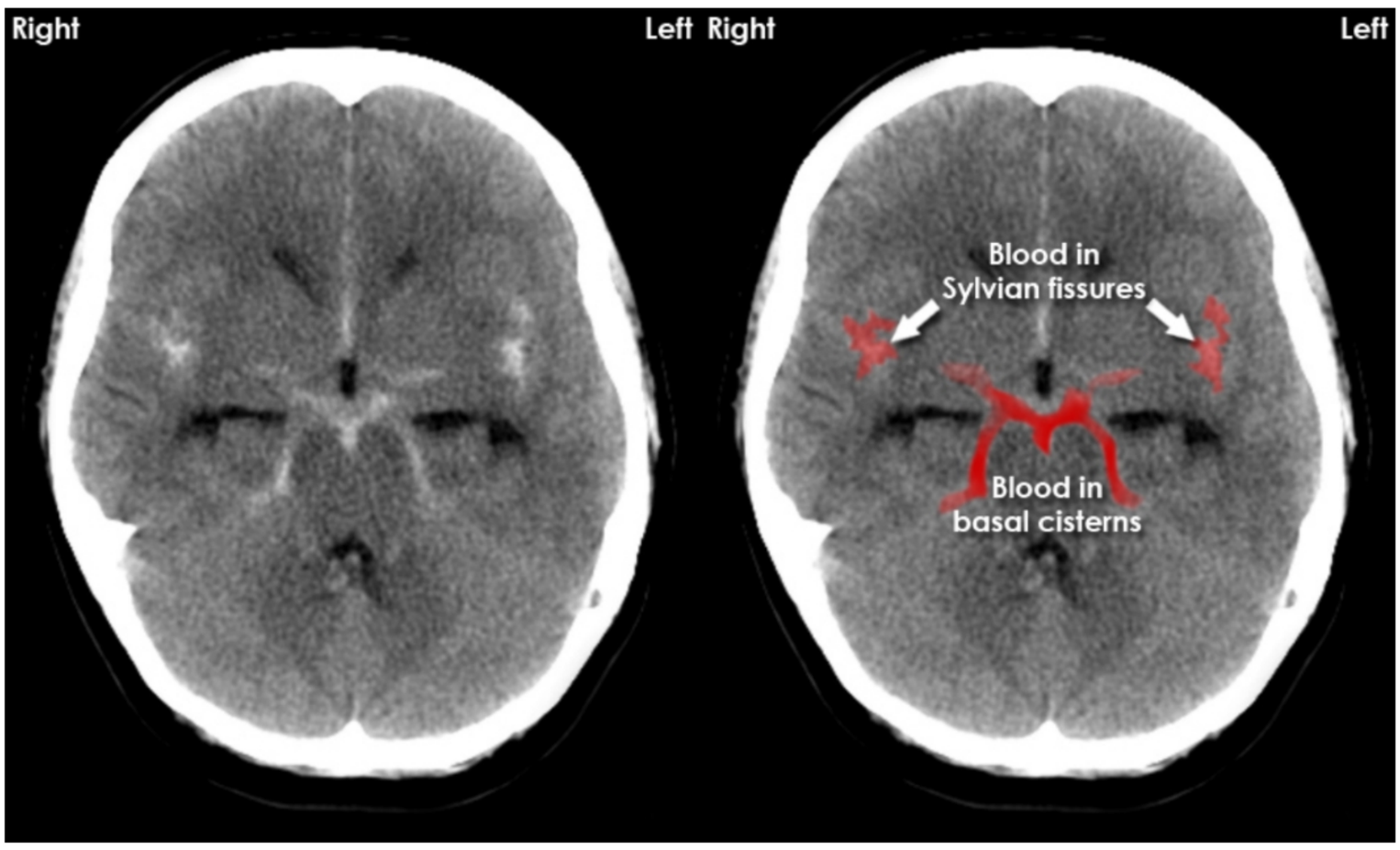
Observed

Subarachnoid hemorrhage

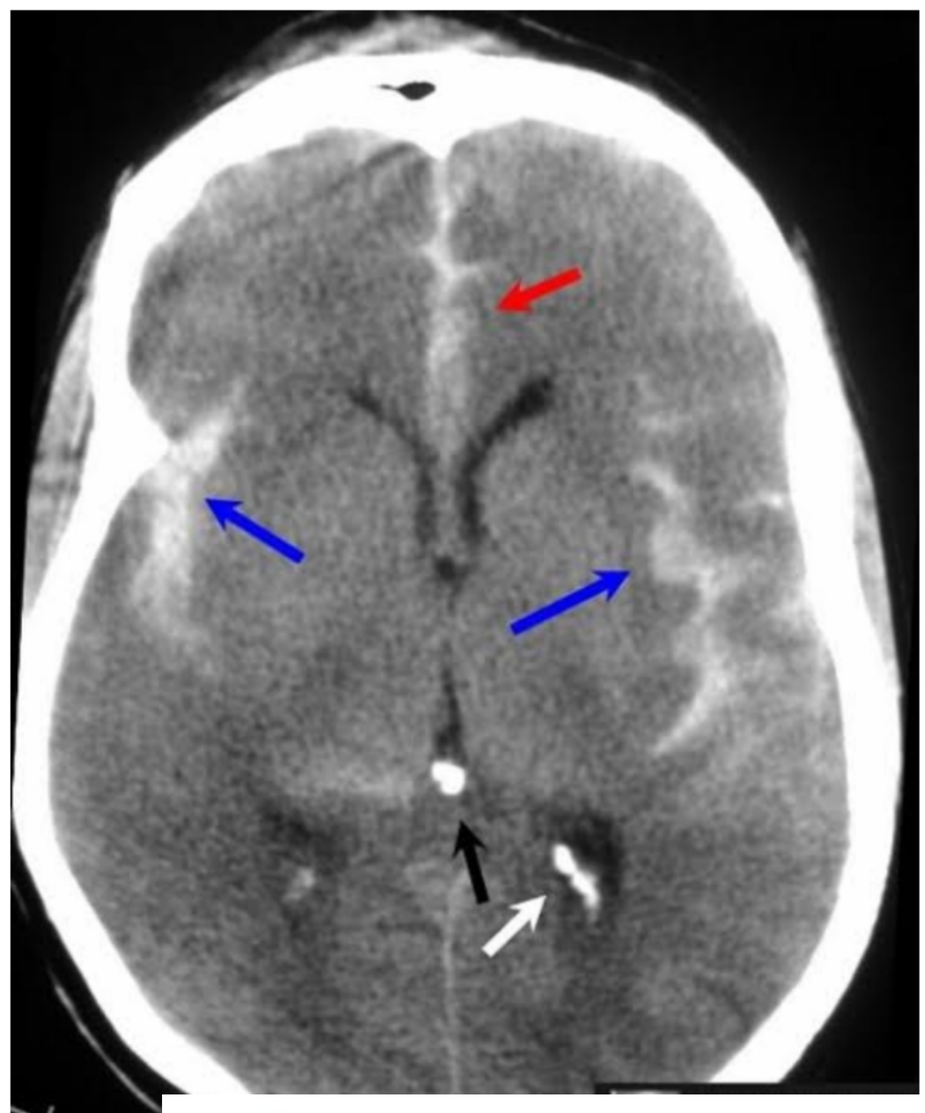
Location

Cause

Management



Subarachnoid Hemorrhage



2️⃣ Other Causes

- Arteriovenous malformation (AVM)
- Trauma (most common overall cause)
- Hypertension
- Cocaine use
- Anticoagulation
- Bleeding disorders

📍 Location

Bleeding occurs in:

👉 The **subarachnoid space**
(Between the arachnoid mater and pia mater)

This space normally contains:

- Cerebrospinal fluid (CSF)
- Major cerebral arteries

Common site of rupture:

- Circle of Willis

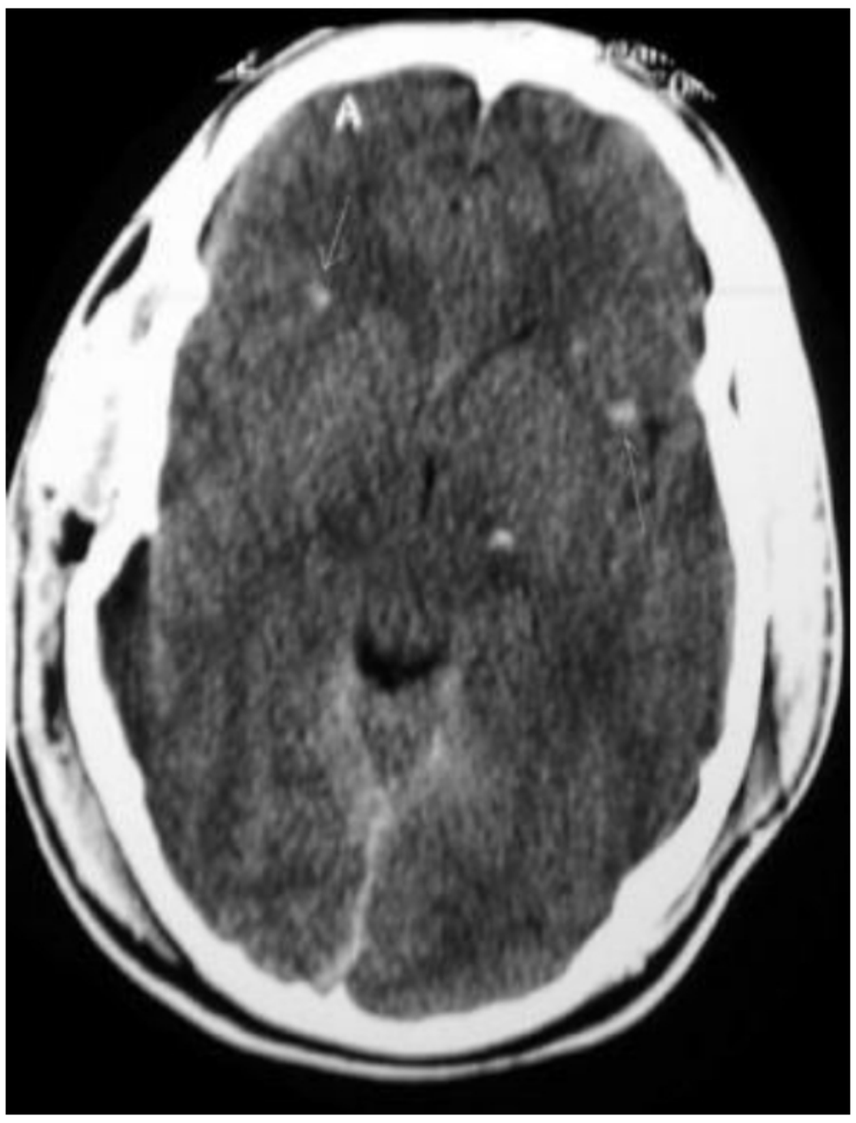
🧨 Causes

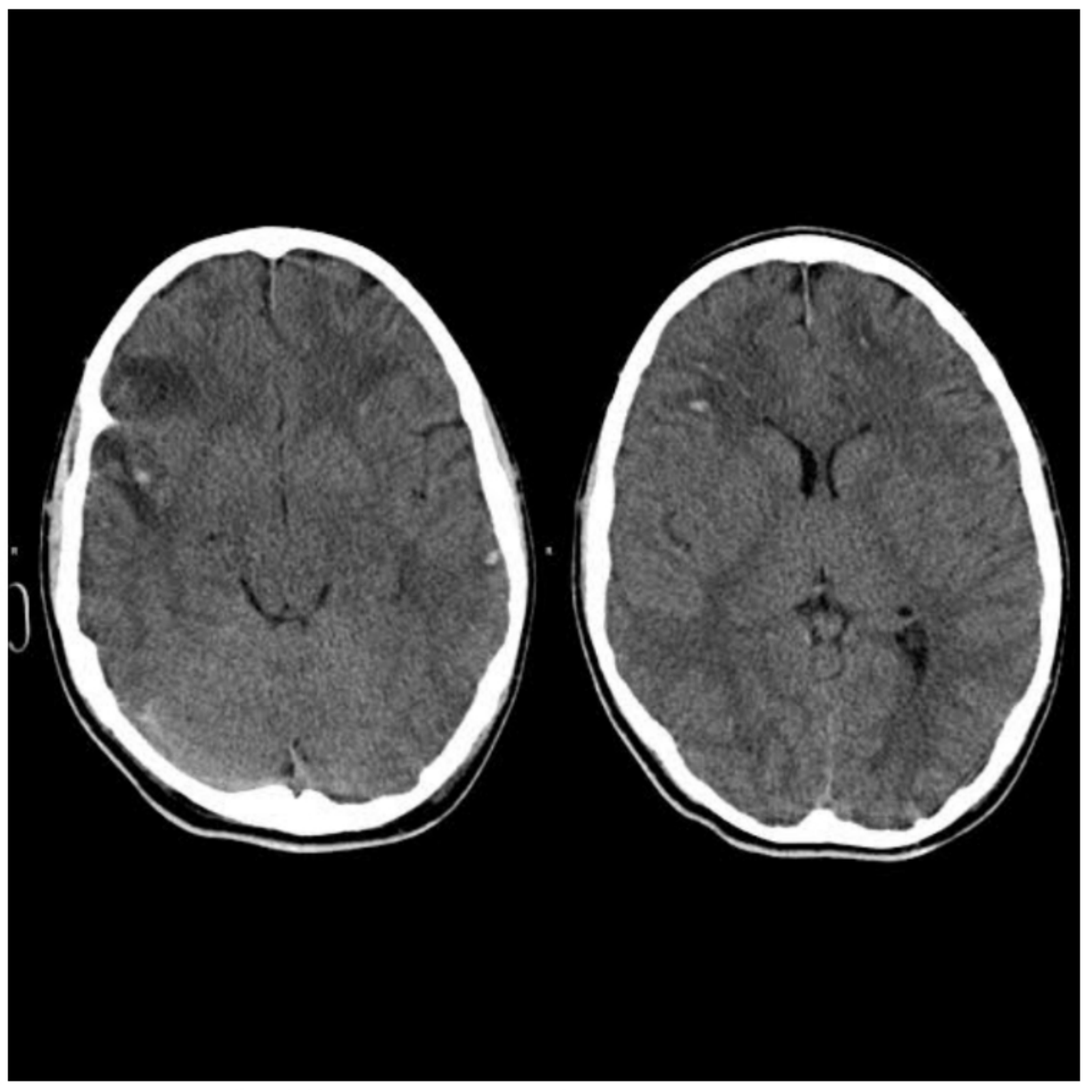
1️⃣ Most Common (Non-traumatic)

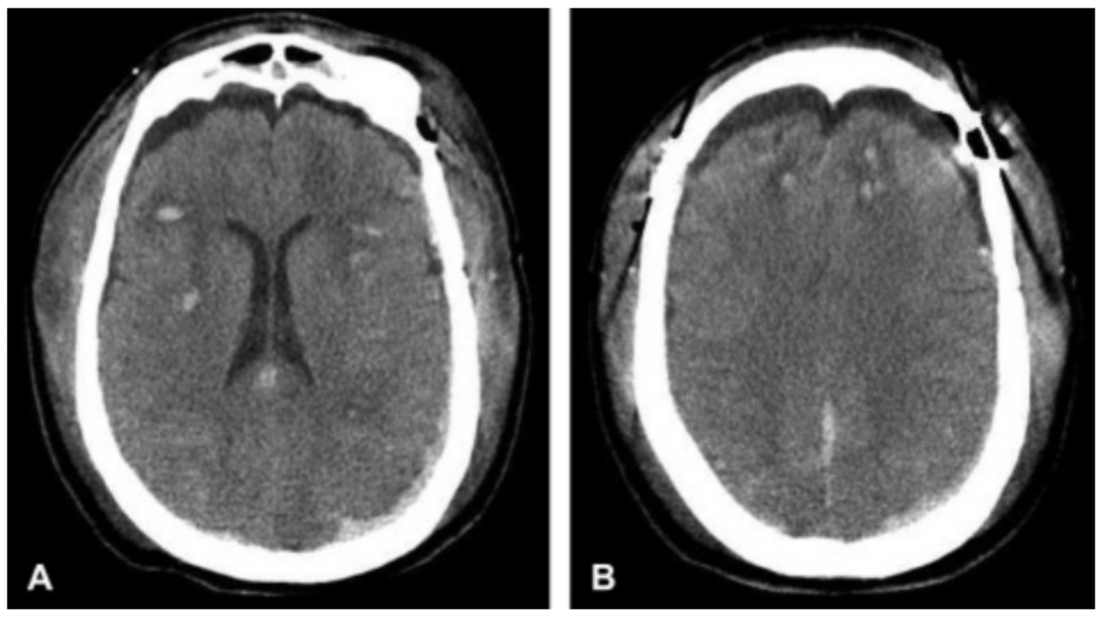
⭐ Ruptured berry aneurysm

(Usually at Circle of Willis)

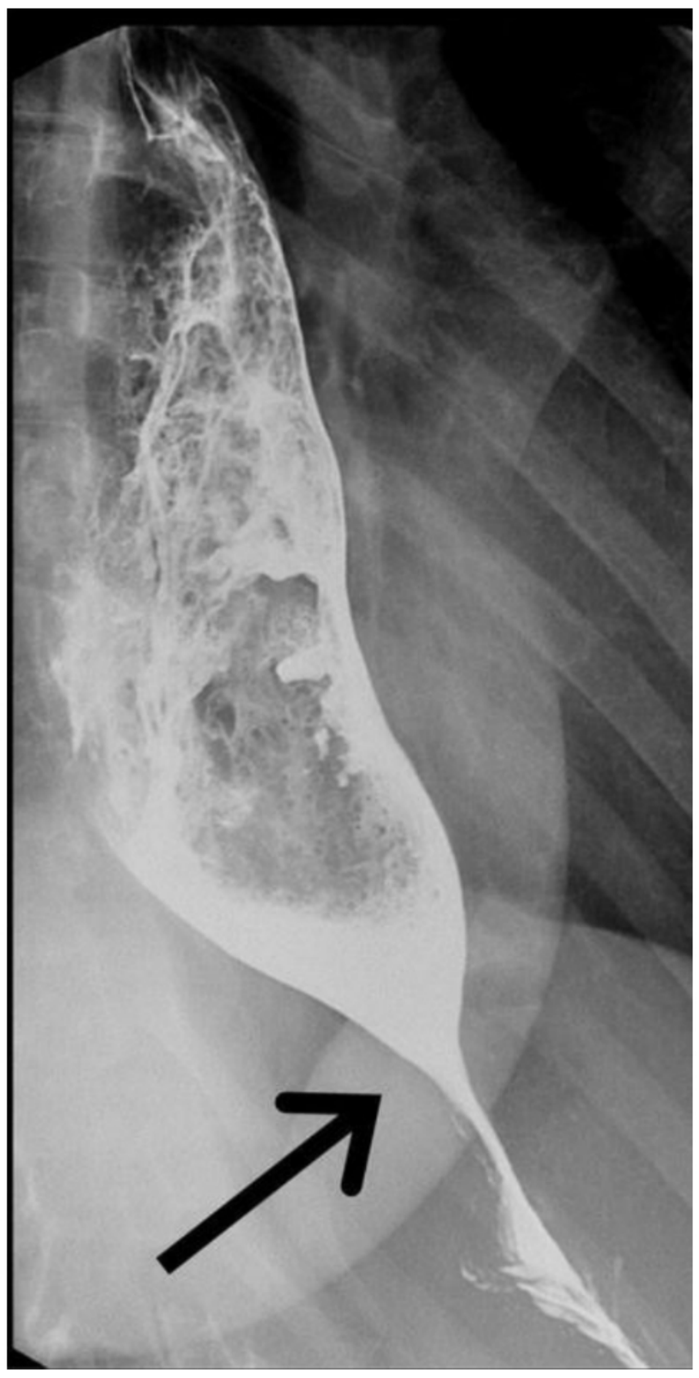
Diffuse Axonal Injury CT



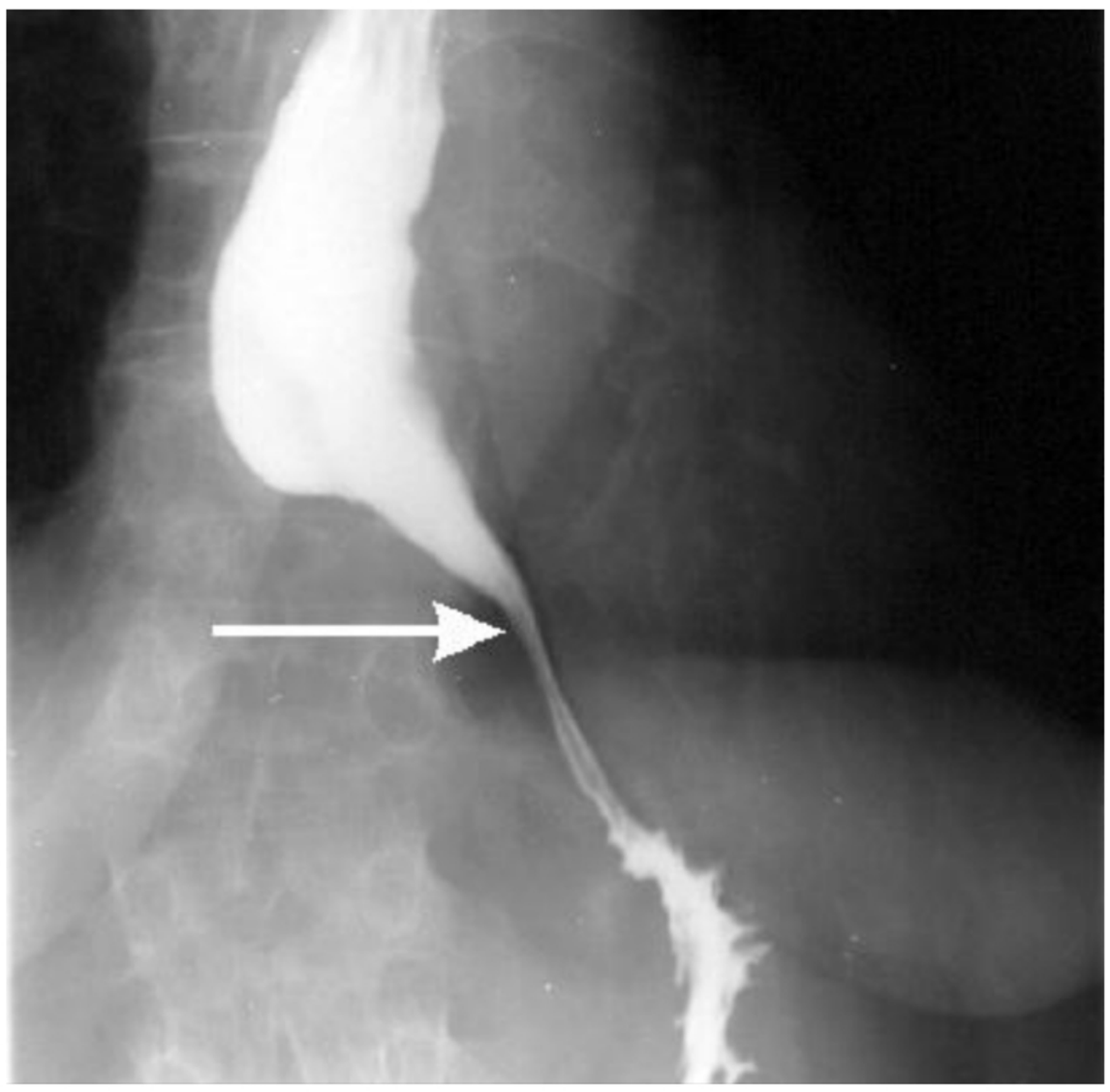


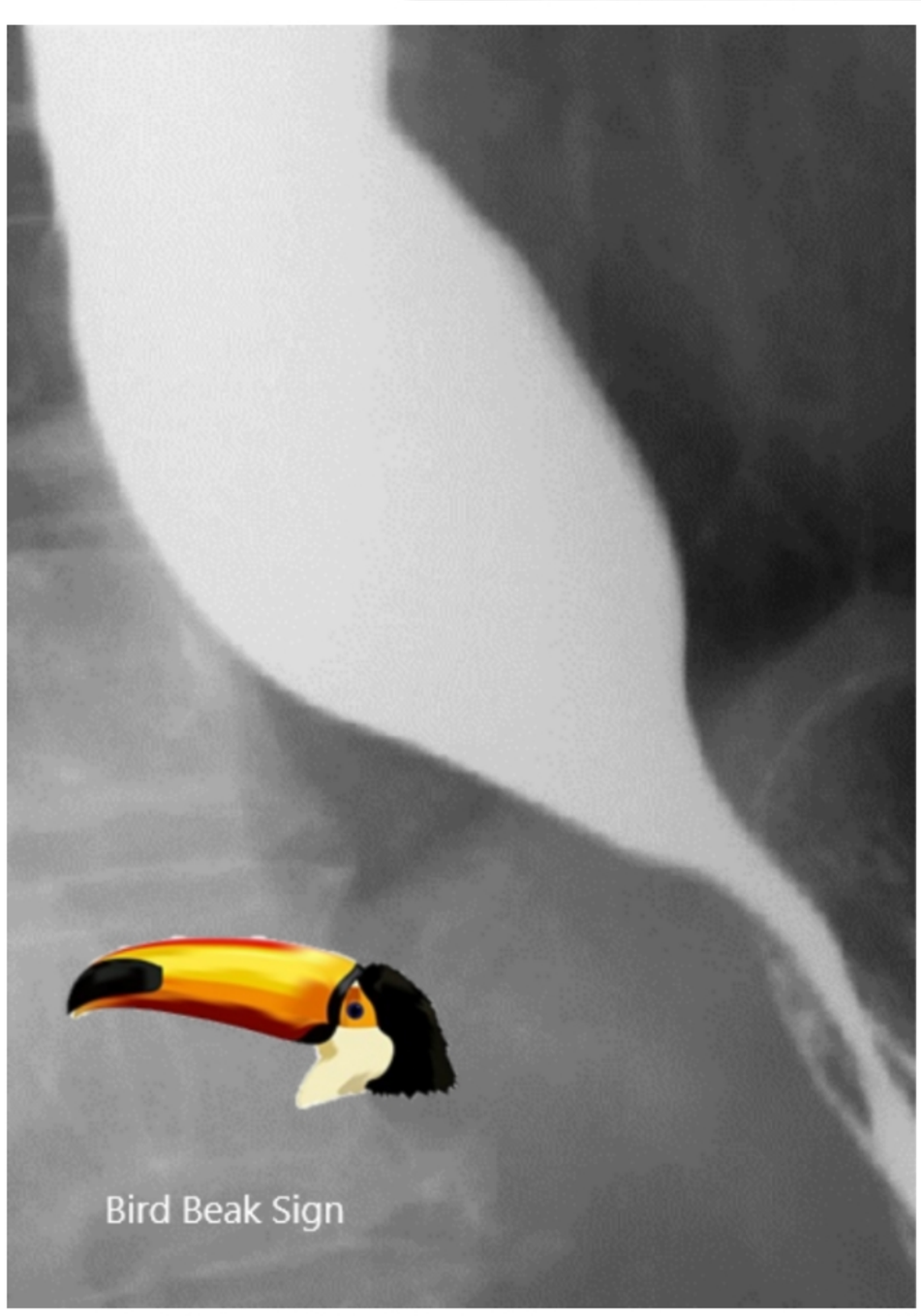


Punctate hemorrhage in corpus callosum and brainstem



Bird beak sign seen in Achalsia





3 yr old kid weight loss wasted on anti tb but no improvement hb 8 rest all normal
Diagnose celiac
Investigations
Treatment

Celiac disease (Gluten-sensitive enteropathy)

Screening Test (First Line) - Anti-tissue transglutaminase IgA (tTG-IgA)

Confirmatory Test - Upper GI endoscopy with duodenal biopsy

Treatment - Lifelong Gluten-Free Diet

3 yr old kid weight loss wasted on anti tb but no improvement hb 8 rest all normal
Diagnose celiac
Investigations
Treatment

Celiac Disease
✅ Investigations
1️⃣ Serology (First step)
Anti–tissue transglutaminase (tTG) IgA → most sensitive & first-line
Total serum IgA (to rule out IgA deficiency)
If IgA deficient → IgG-based tests (tTG-IgG or DGP-IgG)
Anti-endomysial antibody (EMA) → highly specific
2️⃣ Confirmatory Test (Gold standard)
Duodenal biopsy (via upper GI endoscopy)
Villous atrophy
Crypt hyperplasia
Increased intraepithelial lymphocytes
3️⃣ Supportive Tests
CBC → iron deficiency anemia
Serum iron, ferritin
Vitamin D, B12, folate
LFTs (may show mild elevation)
Bone density (DEXA) if long-standing
✅ Treatment
1️⃣ Lifelong Gluten-Free Diet (Main treatment)
Avoid:
Wheat
Barley
Rye
Allowed:
Rice
Corn
Millet
Potatoes
2️⃣ Correct Deficiencies
Iron
Folate
Vitamin B12
Calcium & Vitamin D
3️⃣ Severe cases
Short course steroids or immunosipressants (rare, refractory cases)

Anxiety Disorders – Psychia… Viva

1️⃣ Types of Anxiety Disorders (DSM-5 Classification)

Type	Key Features
Generalized Anxiety Disorder (GAD)	Excessive worry >6 months, muscle tension fatigue, sleep disturbance
Panic Disorder	Recurrent unexpected panic attacks, palpitations, sweating, fear of dying
Phobias	Specific phobia (object/ situation), social anxiety disorder
Agoraphobia	Fear of being in places where escape is difficul
Separation Anxiety	Excessive fear of separation from attachment figure
Other / Mixed	Substance-induced, medical condition-relate anxiety

3️⃣ Mechanism of Action of Benzodiazepines

- **Benzodiazepines** bind to **GABA-A receptor** (allosteric site)
- **Enhance the effect of GABA** → increase **frequency of chloride channel opening**
- Result → **hyperpolarization of neurons** → CNS **inhibition**
- Clinically → **anxiolytic, sedative, muscle relaxant, anticonvulsant** effects

📌 Fear vs Anxiety

Fear	Anxiety
Emotional response to **real, external, immediate threat**	Emotional response to **anticipated, internal, or future threat**
Clearly identifiable **external stimulus**	Often **vague or unknown cause**
Short-lived, disappears when threat is gone	Can be **persistent**, may last for weeks or months
"Fight or flight" response (tachycardia, sweating, trembling)	Similar physiological changes, but more **chronic and diffuse**
Immediate **escape or defensive action**	Avoidance, hypervigilance, worry
Focused on **present danger**	Focused on **future or imagined danger**
Seeing a snake → fear	Worrying about exams o illness → anxiety

2️⃣ Treatment of Anxiety

Non-Pharmacological (First-Line)

- **Cognitive Behavioral Therapy (CBT)** → gold standard
- Relaxation techniques, mindfulness, psychoeducation

Pharmacological

Drug Class	Examples
Benzodiazepines	Diazepam, Lorazepam, Alprazolam
SSRIs	Sertraline, Escitalopram
SNRIs	Venlafaxine, Duloxetine
Buspirone	Buspirone

> Often combine **CBT + pharmacotherapy** for optimal results

Stoma
Definition:
A surgically created opening connecting the bowel (ileum or colon) to the abdominal wall for fecal diversion.
✅ Indications
1️⃣ Temporary
Divert fecal stream after anastomosis (protective stoma)
Postoperative bowel injury or perforation
2️⃣ Permanent
Colorectal cancer (after abdominoperineal resection)
Inflammatory bowel disease (ulcerative colitis, Crohn’s disease)
Irreparable anorectal injury
3️⃣ Emergency
Obstruction
Perforation
Trauma
✅ Complications
Early (within 30 days)
Bleeding from stoma site
Necrosis / ischemia
Mucocutaneous separation
Stoma retraction
Parastomal abscess or infection
Late (>30 days)
Prolapse (loop protrudes excessively)
Parastomal hernia
Stenosis / narrowing
Skin irritation / ulceration
High-output stoma complications (fluid/electrolyte imbalance)
✅ Stoma Prolapse
Definition:
Proximal bowel loop protrudes excessively through stoma site
Often seen in loop stomas, transverse colostomies, or ileostomies
Complications of prolapse:
Ischemia / necrosis
Ulceration / bleeding
Obstruction
✅ Management of Stoma Complications
1️⃣ Conservative
Manual reduction if prolapsed and viable
Osmotic dressings (sugar) to reduce edema
Supportive stoma appliance
2️⃣ Surgical
Stoma refashioning / revision → definitive treatment
Reduce prolapsed loop and recreate stoma
Emergency if necrotic or ischemic
3️⃣ Preventive Measures
Proper stoma site marking
Adequate mesenteric fixation
Correct loop vs end stoma choice

Parkinson Disease

Degeneration of neurons in substantia nigra resulting in deficiency of dopamine

Clinical Features

Resting Tremor
Cogwheel rigidity - mostly upper limbs
Plastic (lead pipe) rigidity - mostly lower limbs
Bradykinesia - slowness of movements
Festinating gait
Stooped posture
Expressionless (mask like) face

Treatment

Levodopa + Carbidopa → first-line symptomatic treatment
Dopamine agonists (e.g., pramipexole)
MAO-B inhibitors (e.g., selegiline)
Physiotherapy for mobility & posture

Pediatric Case: Seizures + Fever + Hypoglycemia + Hepatosplenomegaly
Clues:
Child with tonic-clonic seizures
Fever, low serum glucose, hepatosplenomegaly

✅ Likely Malaria (severe falciparum)
Severe malaria can present with cerebral malaria, hypoglycemia, and hepatosplenomegaly

Investigations:
Peripheral blood smear → thick & thin
Rapid malaria antigen test
CBC, LFTs, renal function, blood glucose

Treatment:
ICU admission if severe
IV Artesunate (first-line)
Treat hypoglycemia → 10% dextrose IV
Supportive care: fluids, antipyretics, seizure control (benzodiazepines)

🦠 Difference Between Sepsis and Septic Shock

Feature	Sepsis	Septic Shock
Definition	Life-threatening organ dysfunction due to dysregulated response to infection	A severe subset of sepsis with profound circulatory & metabolic abnormalities
Cause	Infection + organ dysfunction	Sepsis + persistent hypotension despite fluids
Blood Pressure	May be normal or low	**Persistently low** despite adequate IV fluids
Vasopressors Needed?	Not necessarily	**Required** to maintain MAP ⩾ 65 mmHg
Lactate Level	May be elevated	**Serum lactate > 2 mmol/L** despite fluids
Organ Dysfunction	Present (SOFA score ↑ ⩾2)	Severe organ dysfunction
Mortality	High	**Very high (higher than sepsis)**
Perfusion	May have early hypoperfusion	Marked hypoperfusion (cold extremities, altered mental state)
Urine Output	May decrease	Often markedly reduced
Clinical Severity	Serious	Critical / ICU emergency

CEA - Colorectal cancer
CA-125 - Ovarian cancer
beta hCG - Choriocarcinoma, hydatidiform mole
CA 19-9 Pancreatic cancer, cholangiocarcinoma
LDH - Germ cell tumor, Seminoma
AFP - Hepatocellular carcinoma, Yolk sac tumor
PSA - Prostate cancer
5-HIAA Carcinoid tumors
Metanephrines - Pheochromocytoma

5️⃣ Drugs Used in HIV (ART)

Classes of Antiretroviral Drugs:

Class	Examples
NRTIs (Nucleoside Reverse Transcriptase Inhibitors)	Zidovudine, Lamivudine, Tenofovir
NNRTIs (Non-Nucleoside RTIs)	Efavirenz, Nevirapine
Protease Inhibitors (PIs)	Lopinavir/ritonavir, Atazanavir
Integrase Inhibitors	Dolutegravir, Raltegravir
Entry / Fusion Inhibitors	Enfuvirtide, Maraviroc

Treatment Goal:

- **Suppress viral load**
- **Increase CD4 count**
- **Prevent opportunistic infections**

1️⃣ Kaposi Sarcoma (KS)
Identification:
Skin lesions: Purple, red, or brown macules, plaques, or nodules
Can affect skin, oral mucosa, GI tract, lungs
Often multiple and non-painful
Cause:
Human herpesvirus 8 (HHV-8)
Opportunistic malignancy in immunocompromised patients, especially HIV/AIDS

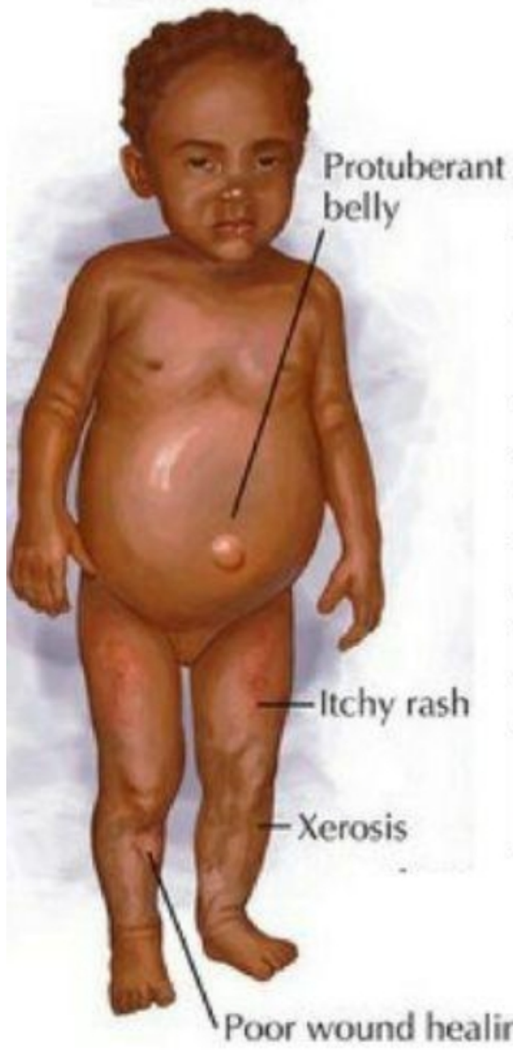
3️⃣ CD4 – What It Stands For & Importance
CD4 = Cluster of Differentiation 4
Marker of helper T lymphocytes
Importance:
Indicates immune status in HIV
Guides prophylaxis for opportunistic infections
Tracks response to antiretroviral therapy (ART)
Key levels & corresponding risk:
500 → relatively normal immunity
200–500 → mild immunosuppression → risk of infections like TB
<200 → severe immunosuppression → PCP, KS
<100 → very severe → toxoplasmosis, cryptococcus
<50 → life-threatening → MAC, CMV, PML

4️⃣ HIV Transmission Rates (Mother to Baby)
Scenario
Transmission Rate
Untreated mother
15–45%
Mother on ART (with good viral suppression)
<5%
Transmission can occur: in utero, during labor, or via breastfeeding

Kwashiorkor (Protein-Energy Malnutrition – Severe)
Definition:
Severe protein deficiency with relative calorie sufficiency, typically in children 1–5 years old.
1️⃣ Primary Causes
Socioeconomic Factors:
Poverty → inadequate food supply
Large family size → insufficient food per child
Infant Feeding Practices:
Inadequate breastfeeding or early cessation
Improper weaning → low-protein complementary foods
2️⃣ Secondary Causes
Malabsorption Syndromes:
Chronic diarrhea
Celiac disease
Inflammatory bowel disease
Chronic Illnesses:
Chronic infections (HIV, TB) → increase protein loss / requirement
Renal or liver disease
3️⃣ Clinical Features (Viva Pearls)
Edema (feet, legs, face) → hallmark
Distended abdomen
Skin changes: hyperpigmented patches, peeling, “flaky paint” appearance
Hair changes: sparse, depigmented (“flag sign”)
Lethargy, irritability
Growth retardation
4️⃣ Investigations
Serum albumin → low (<2.8 g/dL)
CBC → anemia
Electrolytes → hyponatremia, hypokalemia
Liver function tests → may show fatty liver
5️⃣ Management
Stepwise approach (WHO guidelines):
Phase 1: Stabilization
Treat hypoglycemia (5% dextrose)
Correct electrolytes & dehydration
Treat infections (empirical antibiotics)
Avoid high-protein / high-calorie foods initially
Phase 2: Nutritional Rehabilitation
Gradually introduce protein-rich foods
Ready-to-use therapeutic food (RUTF)
Monitor for refeeding syndrome
Phase 3: Recovery / Follow-up
Growth monitoring
Micronutrient supplementation (zinc, vitamin A, iron after stabilization)
Education on proper weaning and diet

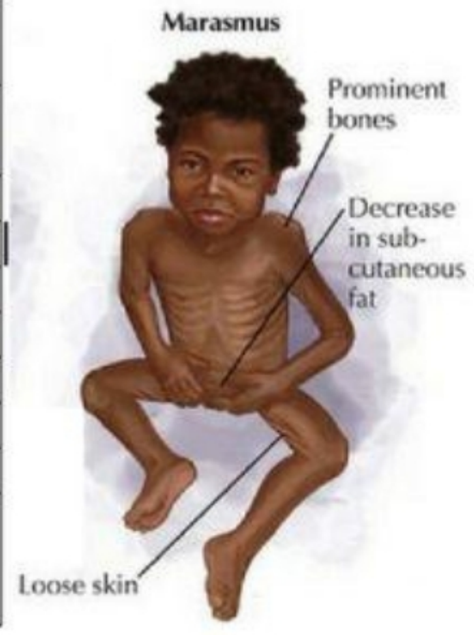
10 Differences between Kwashiorkor and Marasmus

www.majordifferences.com



Comparison Table

Kwashiorkor	Marasmus
It develops in children whose diets are deficient of protein.	It is due to deficiency of proteins and calories.
It occurs in children between 6 months and 3 years of age.	It is common in infants under 1 year of age.
Subcutaneous fat is preserved.	Subcutaneous fat is not preserved.
Oedema is present.	Oedema is absent
Enlarged fatty liver.	No fatty liver.
Ribs are not very prominent.	Ribs become very prominent.
Lethargic	Alert and irritable.
Muscle wasting mild or absent.	Severe muscle wasting
Poor appetite.	Voracious feeder.
The person suffering from Kwashiorkor needs adequate amounts of proteins.	The person suffering from Marasmus needs adequate amount of protein, fats and carbohydrates.



Kwashiorkor vs Marasmus

1️⃣ Spinal Needle

Definition:

A hollow needle used to inject local anesthetic into the subarachnoid space for spinal anesthesia or diagnostic lumbar puncture.

2️⃣ Drug Given Through Spinal Needle

Local anesthetic: Bupivacaine (most commonly used)

Can be combined with opioids like fentanyl for longer analgesia

3️⃣ Anatomy & Site of Procedure

Spinal Cord Termination

In adults: L1–L2 vertebral level

In infants: slightly lower (L2–L3)

Needle Insertion Site

Lumbar puncture / spinal anesthesia → below spinal cord termination to avoid injury

Typical levels: L3–L4 or L4–L5 interspace

Landmarks:

Iliac crests → line across gives L4 vertebral level

4️⃣ Clinical Tips / Viva Pearls

Patient position: Lateral decubitus or sitting

Needle direction: bevel parallel to dural fibers (to reduce headache)

CSF flow: confirms correct placement

Indications: spinal anesthesia, diagnostic lumbar puncture, intrathecal drug delivery

Mood disorders are psychiatric disorders primarily characterized by disturbances in mood or affect, lasting for a significant duration, and affecting daily functioning.
Types of Mood disorders =bipolar, major depressive disorder , seasonal affective disorder

Bipolar Disorder (BP)
Definition
Mood disorders: psychiatric conditions with disturbances of mood, emotion, and affect
Bipolar disorder: recurrent episodes of mania/hypomania and depression
Bipolar Disorder Features
Mania: elevated/irritable mood, decreased sleep, grandiosity, hyperactivity
Hypomania: milder, no significant functional impairment
Depression: low mood, anhedonia, guilt, suicidal thoughts
Mood Stabilizers
Lithium → gold standard
Valproate → for rapid cycling / mixed episodes
Carbamazepine → alternative
Lamotrigine → mainly for bipolar depression prevention
Suicide Risk
Lifetime suicide risk ~15–20% in bipolar disorder
Highest during depressive or mixed episodes

Subdural Hematoma (SDH) – Chronic Type

Pathophysiology:

Bridging veins rupture → slow bleed in subdural space
Often occurs in elderly with brain atrophy (veins stretched)
Clinical Features:
Headache, confusion, hemiparesis, cognitive decline
Often weeks after minor trauma

Investigation:

CT brain → crescent-shaped, hypodense (chronic), may cross sutures

Types of SDH:

Acute → hyperdense, severe trauma
Subacute → 3–14 days
Chronic → >14 days, hypodense

Treatment:

Burr hole evacuation → mainstay for chronic SDH
Conservative for small, asymptomatic hematomas

Brain atrophy bridging veins rupture
Txt burr hole (asked about the different types)

in terms of irrigation
burr hole with irrigation
burr hole without irrigation

in terms of drainage
closed drainage
passive drainage
subgaleal drain

number of burr holes
single burr hole
double burr hole

Hypovolemic Shock Station
Scenario Features:
Low BP, tachycardia, tachypnea, cool clammy skin, altered consciousness

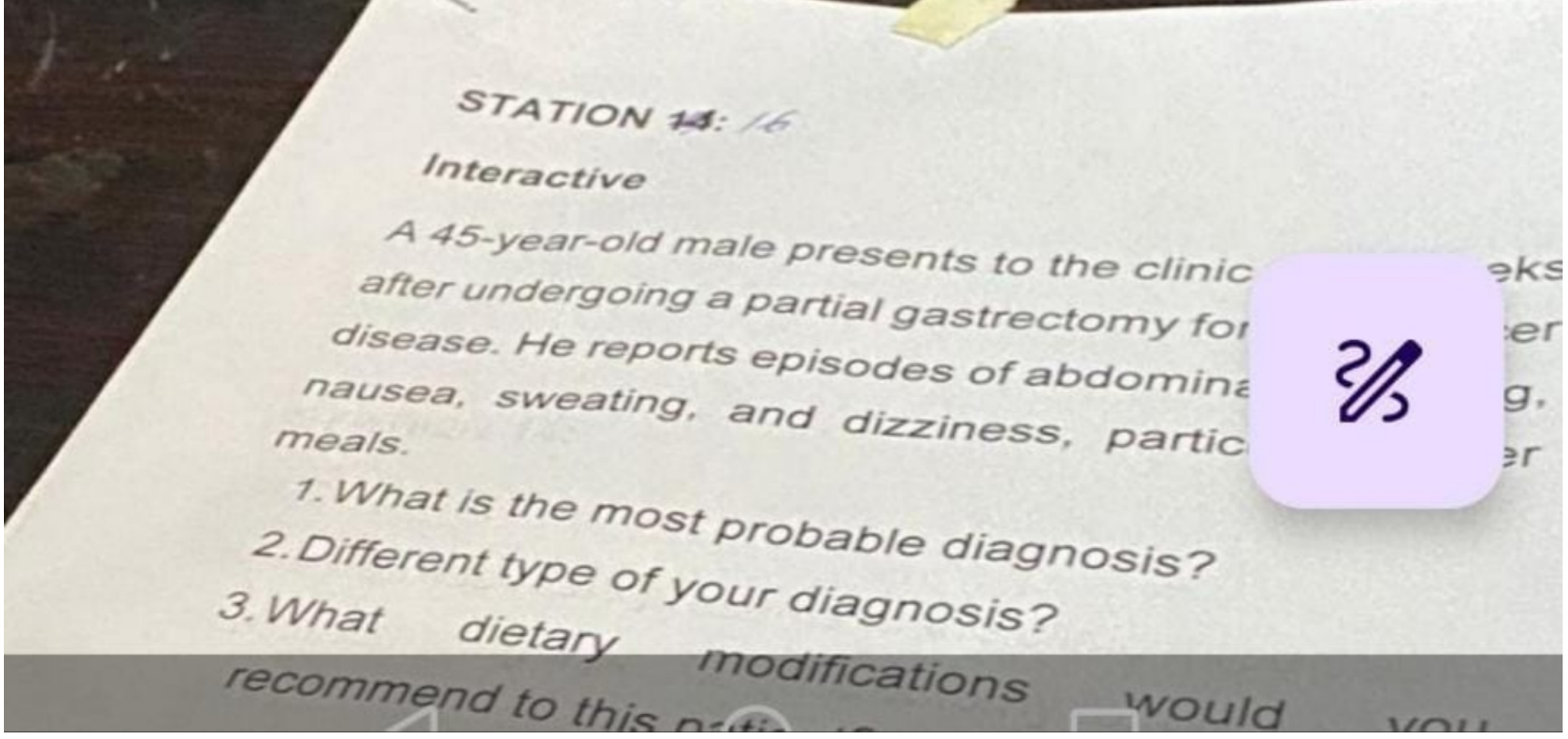
Causes: hemorrhage, diarrhea, burns, vomiting

Management (ABCs, ATLS protocol):
Airway, Breathing, Circulation
Oxygen supplementation
IV access: 2 large-bore cannulas

Fluid resuscitation:
Crystalloids (Ringer’s lactate) 20 mL/kg bolus
Repeat as needed

Treat underlying cause (stop bleeding, correct electrolyte loss)
Monitor vitals, urine output

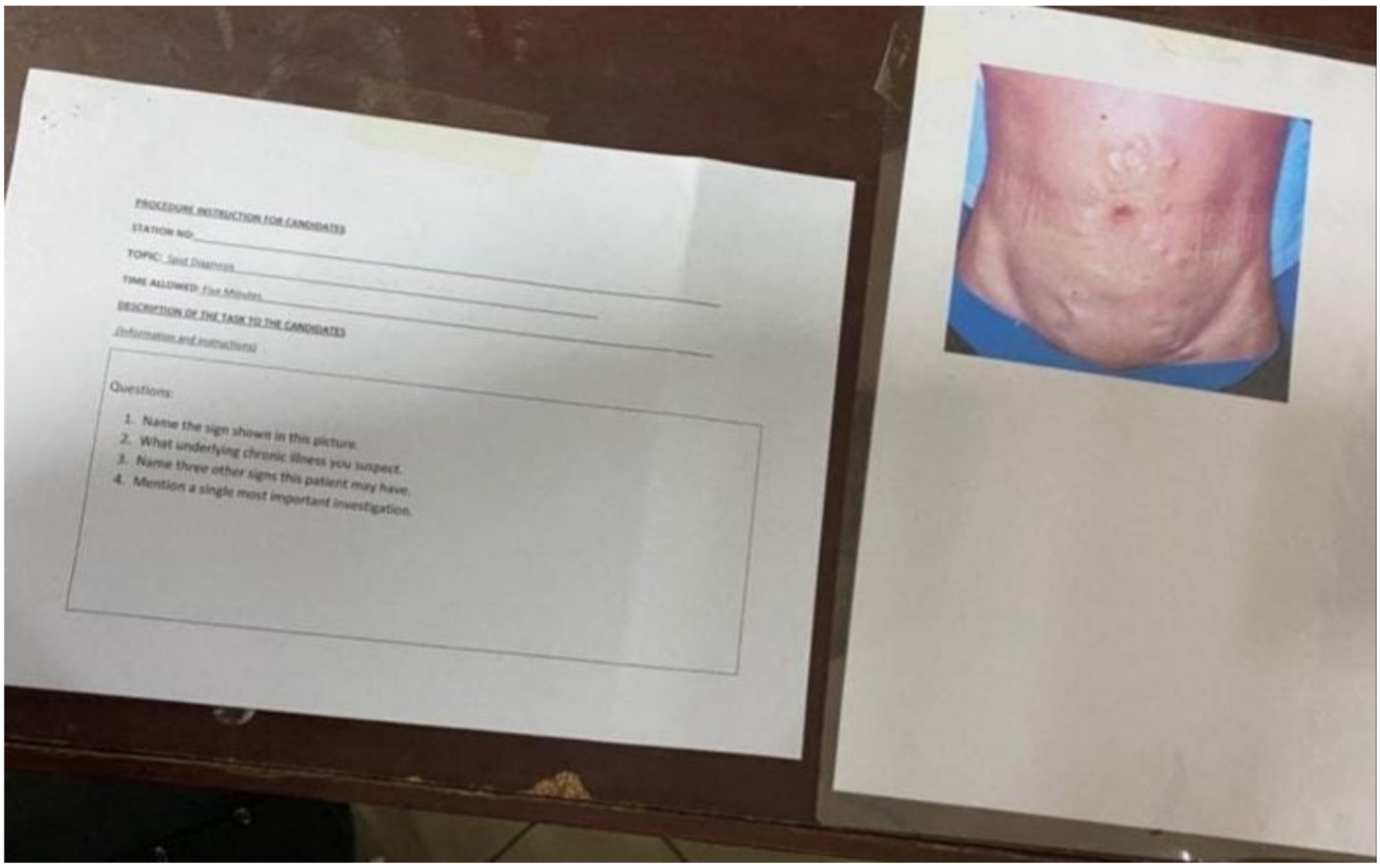
Pleurectomy Counseling (Thoracic Surgery Station)
Indication:
Recurrent pneumothorax
Chronic empyema
Counseling Points:
Procedure: removal of parietal pleura → obliterate pleural space
Benefits: prevents pneumothorax recurrence
Risks: bleeding, infection, pain, respiratory complications
Post-op care: chest tube drainage, physiotherapy, pain control



Type	Onset	Features	Mechanism
Early dumping	10–30 min after meals	Nausea, bloating, abdominal cramps, diarrhea, palpitations, sweating, dizziness	Rapid gastric emptying → fluid shift into intestine → hypotension + sympathetic activation
Late dumping	1–3 hours after meals	Weakness, sweating, hypoglyce palpitatio	Rapid glucose absorption → excessive insulin → reactive hypoglycemia

Diagnosis is dumping syndrome

2️⃣ Dietary Modifications / Recommendations
Aim: Slow gastric emptying, prevent fluid shifts, reduce symptoms
Small, frequent meals (5–6/day)
Avoid simple sugars → limit sweets, fruit juices, sugary drinks
Increase protein and complex carbohydrates → lean meats, eggs, vegetables, whole grains
Drink fluids between meals (not with meals)
Eat slowly and chew thoroughly
Include soluble fiber → slows gastric emptying (oats, psyllium)
Lie down briefly after meals (if tolerated) to reduce early dumping symptoms
Severe or refractory cases may require medication (e.g., octreotide) or surgical revision, but dietary modification is first-line.



Caput medusae i guess
Underlying portal hypertension due to liver cirhosis or chronic liver disease
3 other signs maybe spider nevi , ascites spleenomegaly, fetor hepaticus , palmer erethyma jaundice maybe
Most important investigation
Doppler uletrasound of abdominal veins ?

Mechanism of action of benzodiazepenes

Benzodiazepines enhance GABA-mediated inhibition by increasing the frequency of chloride channel opening at the GABA-A receptor, causing neuronal hyperpolarization and CNS depression

Rose spots image ..
Dx.. typhoid fever

In which week rose spots appear:2nd week
Investigations to confirm the dx
Management of typhoid fever
Antibiotics names..

What is MDR..
What to give if it's MDR

when salmonella is resistent any of the the three major antibiotic groups like ampicillin, chloramphenicol and tmp-smx. then give ceftriaxone, azithromycin if extensive resistence, so carbepenems meropenims

ROSE SPOTS

🌹 Rose Spots

Rose spots are:

- Small (2–4 mm)
- Pink, blanching maculopapular rash
- Usually on **abdomen and chest**
- Faint and transient (disappear in 2–5 days)

They are classically seen in **Typhoid fever**

📅 When do they appear?

👉 **2nd week of illness**

🦠 Diagnosis: Typhoid Fever

Caused by:

- **Salmonella enterica serotype Typhi**

Transmission:

- Feco-oral route (contaminated food/water)

🧪 Investigations to Confirm Diagnosis

1️⃣ Blood Culture (Gold Standard – especially 1st week)

- Best confirmatory test

2️⃣ Stool Culture

- More positive in later weeks

3️⃣ Bone Marrow Culture

- Most sensitive (even after antibiotics)

4️⃣ Widal Test

- Detects O & H antibodies
- Less specific (used where culture not available)

💊 Management of Typhoid Fever

General Management

- Hydration (oral/IV fluids)
- Antipyretics (Paracetamol)
- Nutritional support
- Monitor for complications (intestinal perforation, bleeding)

🧫 Antibiotics (Uncomplicated Typhoid)

Common options:

- **Ceftriaxone**
- **Azithromycin**
- **Ciprofloxacin** (if sensitive)

Duration: 7–14 days depending on drug used

⚠️ What is MDR Typhoid?

MDR = Multidrug Resistant

Resistance to: ACT

- Ampicillin
- Chloramphenicol
- Trimethoprim-sulfamethoxazole

💉 What to Give in MDR Typhoid?

Preferred:

- **Ceftriaxone**
- **Azithromycin**

🚨 If XDR (Extensively Drug Resistant)

Resistant to:

- First-line drugs
- Fluoroquinolones
- Third-generation cephalosporins

Then use:

- **Meropenem**
- Or Azithromycin (if sensitive)

🦠 Hepatitis A

An acute, self-limiting viral infection of the liver caused by the **Hepatitis A virus**.

Transmission: **Feco-oral route** (contaminated food/water)
Common in children & areas with poor sanitation.

🧪 Investigations

1️⃣ Liver Function Tests (LFTs)

- ↑ ALT (more than AST)
- ↑ AST
- ↑ Bilirubin
- Mild ↑ ALP
- Prolonged PT (in severe cases)

2️⃣ Specific Diagnostic Test (Confirmatory)

✅ **Anti-HAV IgM antibodies**

- Indicates **acute infection**
- Appears early and lasts 3–6 months

Anti-HAV IgG

- Indicates past infection or immunity (vaccination)

🛡️ Prevention

- Proper sanitation
- Hand hygiene
- Vaccination (in high-risk individuals)

💊 Management

There is **NO specific antiviral treatment**.

1️⃣ Supportive Care (Mainstay)

- Bed rest (if symptomatic)
- Adequate hydration
- Light diet
- Avoid alcohol
- Avoid hepatotoxic drugs (e.g., paracetamol overdose risk)

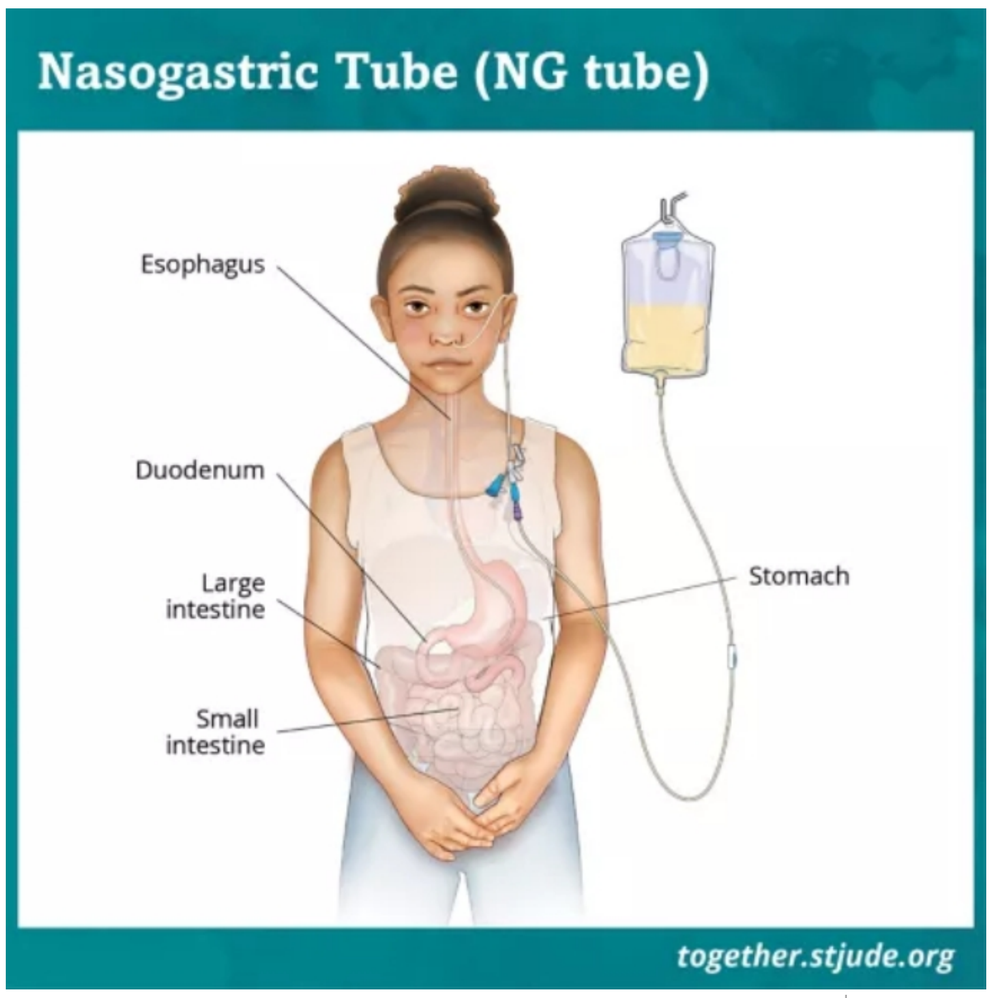
2️⃣ Monitor For Complications

- Check PT/INR
- Watch for signs of acute liver failure:
  - Confusion (hepatic encephalopathy)
  - Severe jaundice
  - Bleeding tendency

3️⃣ Hospitalization If:

- Persistent vomiting
- Coagulopathy (INR prolonged)
- Encephalopathy
- Severe dehydration

[: Ek cerebellar examination thi aur ek abdominal examination wala aik aur tha aur ek paeds history bhi tha

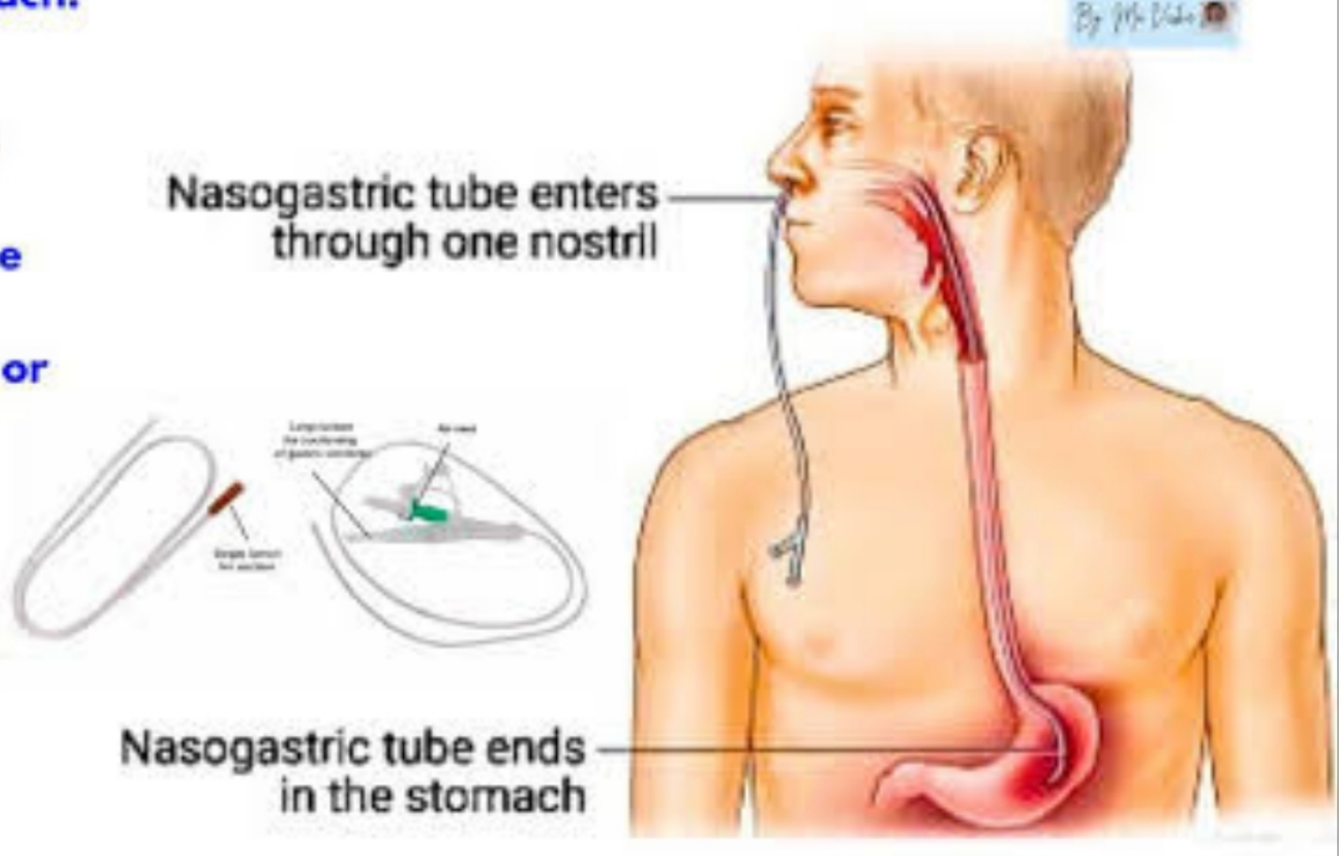


Nasogastric Tube (NG Tube)

A nasogastric tube is a thin, flexible tube inserted through the nose → throat → esophagus → stomach.

Types of NG Tubes

1. **Levin Tube**
   - Single lumen (one channel)
   - Used for feeding or simple suction
2. **Salem Sump**
   - Double lumen
   - Blue "pigtail" prevents suction from sticking to stomach lining
   - Used for gastric decompression



Purposes of a Nasogastric Tube

1. Decompression / Drainage
2. Feeding
3. Medication Administration
4. Diagnostic

Nursing Responsibilities

- Check placement before feeding or giving meds
- Flush with water to prevent blockage
- Monitor for:
  - Coughing, respiratory distress
  - Abdominal distension
  - Leakage around nose
  - Skin breakdown

Insertion Steps (Simplified)

1. Explain procedure and position patient in high-Fowler's (sitting upright).
2. Measure from nose → ear → xiphoid to estimate tube length.
3. Lubricate the tip.
4. Insert through nostril while patient sips water (if conscious).
5. Advance gently to measured length.
6. Confirm placement:
   - Best method: X-ray
   - At bedside: check pH of aspirate (<5 indicates stomach)
7. Secure tube and begin use.

MENINGITIS

- Inflammation of meninges
- Acute onset
- Medical emergency
- Can be infectious or non-infectious
- 📌 Fever + headache + neck stiffness = meningitis

MENINGITIS CLASSIC TRIAD

- Fever
- Neck stiffness
- Altered mental status
- 📌 Triad present → meningitis until proven otherwise

COMMON PRESENTING SYMPTOMS MENINGITIS

- Severe headache
- Photophobia
- Nausea / vomiting
- Confusion
- Seizures (especially in bacterial meningitis)
- Rash (meningococcal)

MENINGEAL SIGNS

- Kernig sign – pain on knee extension
- Brudzinski sign – hip/knee flexion on neck flexion
- Nuchal rigidity
- 📌 Positive meningeal signs = meningeal irritation

CSF Findings

- Bacterial - Cloudy, Neutrophils, Decreased glucose
- Viral - Clear, Lymphocytes, normal glucose
- Tuberculous - Cloudy, Mixed (initually neutrophils, then lymphocytes), decreased glucose, Markedly increased protein

ACUTE BACTERIAL MENINGITIS

- Sudden onset
- High-grade fever
- Severe headache
- Altered consciousness
- Seizures
- Vomiting
- Petechial rash → Neisseria meningitidis
- 📌 Toxic patient + rapid progression

VIRAL (ASEPTIC) MENINGITIS

- Mild to moderate illness
- Fever, headache
- Normal consciousness
- No focal deficits
- Self-limiting
- 📌 Mild meningitis + normal sensorium

TUBERCULOUS MENINGITIS

- Subacute onset (weeks)
- Low-grade fever
- Headache
- Weight loss
- Night sweats
- Cranial nerve palsies (esp. CN VI)
- 📌 Chronic symptoms + cranial nerve involvement

FUNGAL MENINGITIS

- Immunocompromised patient
- Subacute/chronic course
- Headache, fever
- Raised ICP signs
- 📌 HIV + meningitis = think fungal

MENINGOCOCCAL MENINGITIS

- Neisseria meningitis
- Fever + headache
- Purpuric / petechial rash
- Hypotension
- Shock (Waterhouse-Friderichsen syndrome)
- 📌 Rash + meningitis = meningococcal

Appendicitis

Differential Diagnoses (DDs) of Right Iliac Fossa (RIF) Pain

Acute appendicitis
Meckel's diverticulitis
Crohn's disease
Ileitis
Caecal carcinoma
Ectopic pregnancy
Ovarian torsion
Ruptured ovarian cyst
Pelvic inflammatory disease
Ureteric stone
Urinary tract infection
Pyelonephritis

Post Op Complications of Appendicitis

* Wound infection
* Adhesive intestinal obstruction
* Ileus
* Respiratory complications
* Fecal fistula
* Portal pyemia

Clinical Presentation

* Periumbilical pain, which is referred Visceral pain
* Pain shifts to RIF - due to parietal peritoneal irritation
* Anorexia
* Nausea
* Vomiting

Investigations

* CBC
* Urinalysis
* Abdominal ultrasound

- **Alvarado Score (mnemonic: (MANTRELS):**

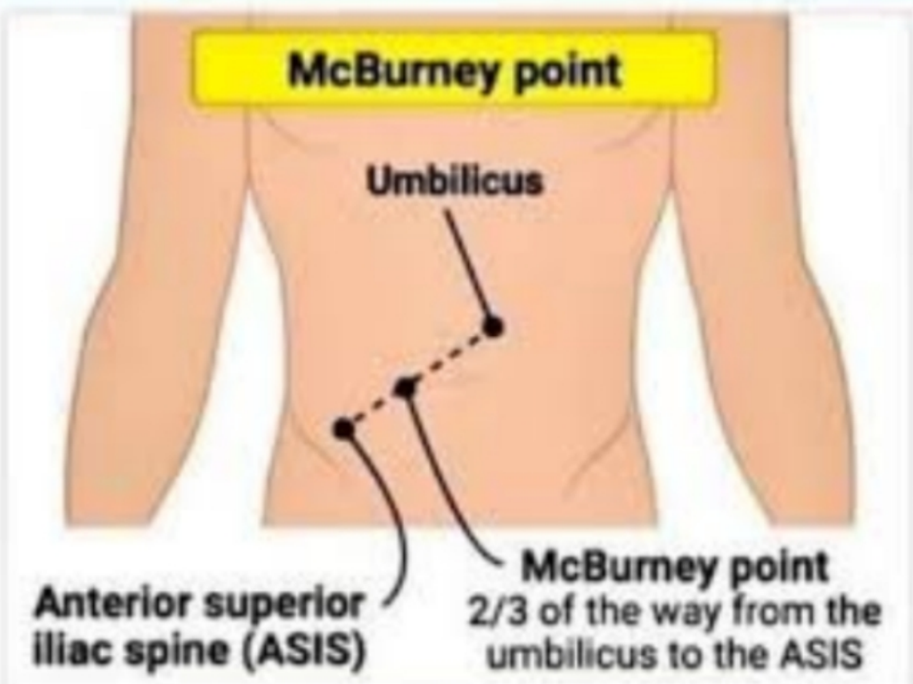
Feature	Score
Migratory RIF pain	1
Anorexia	1
Nausea and vomiting	1
Tenderness in RIF	2
Rebound tenderness	1
Elevated temperature (>37°C)	1
Leukocytosis	2
Shift to left (↑ in segmented neutrophils)	1
Total score if ≤ 4 diagnosis unlikely, 5 – 6 = observe, ≥ 7 = operation required	

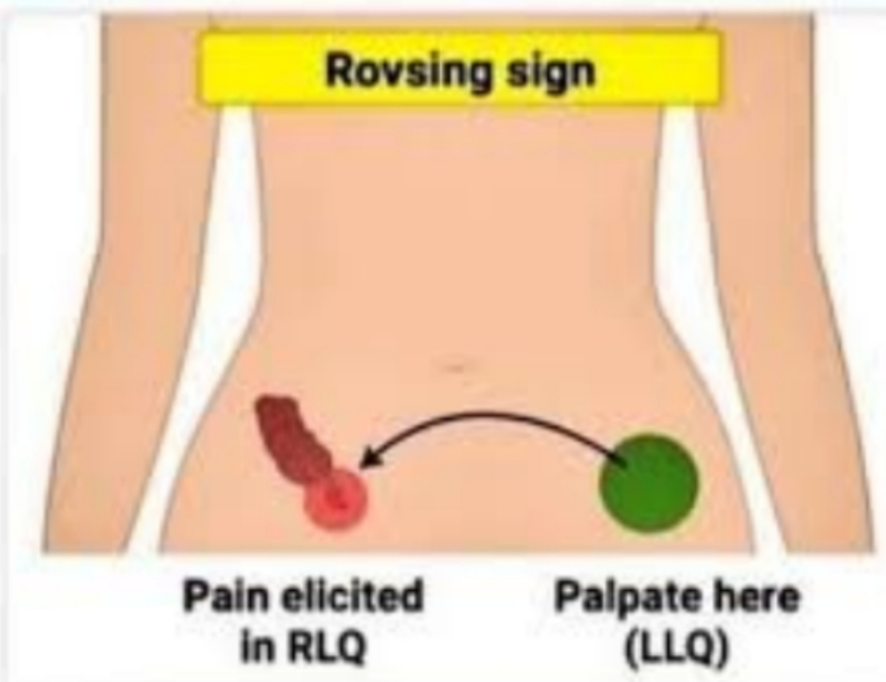
Acute Appendicitis

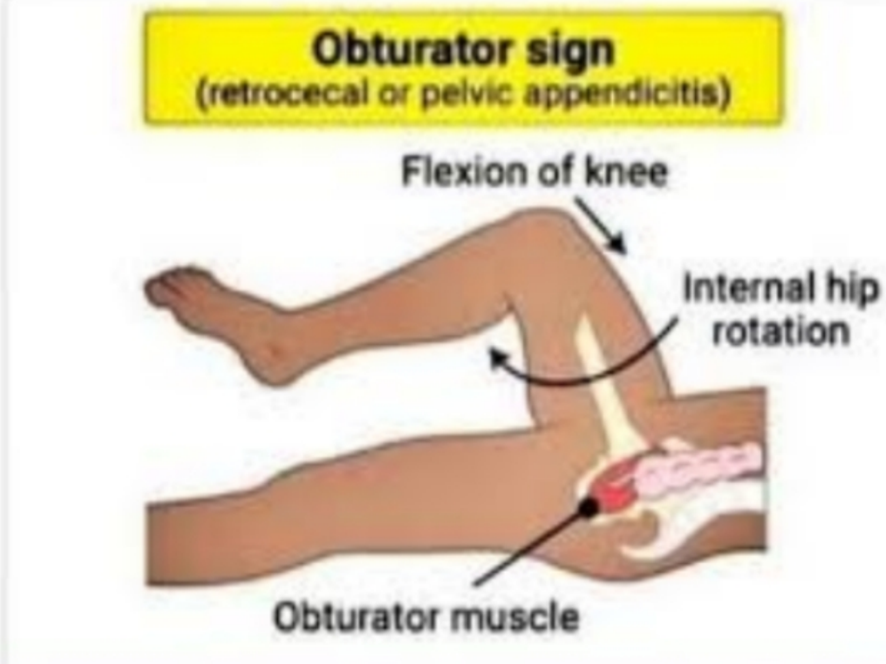
Epidemiology
- Most common in 10- to 19-year-old group
- More common in boys and men

Clinical
- Right lower quadrant abdominal pain
- Anorexia
- Nausea and vomiting
- Periumbilical pain that migrates to RLQ
- Fever

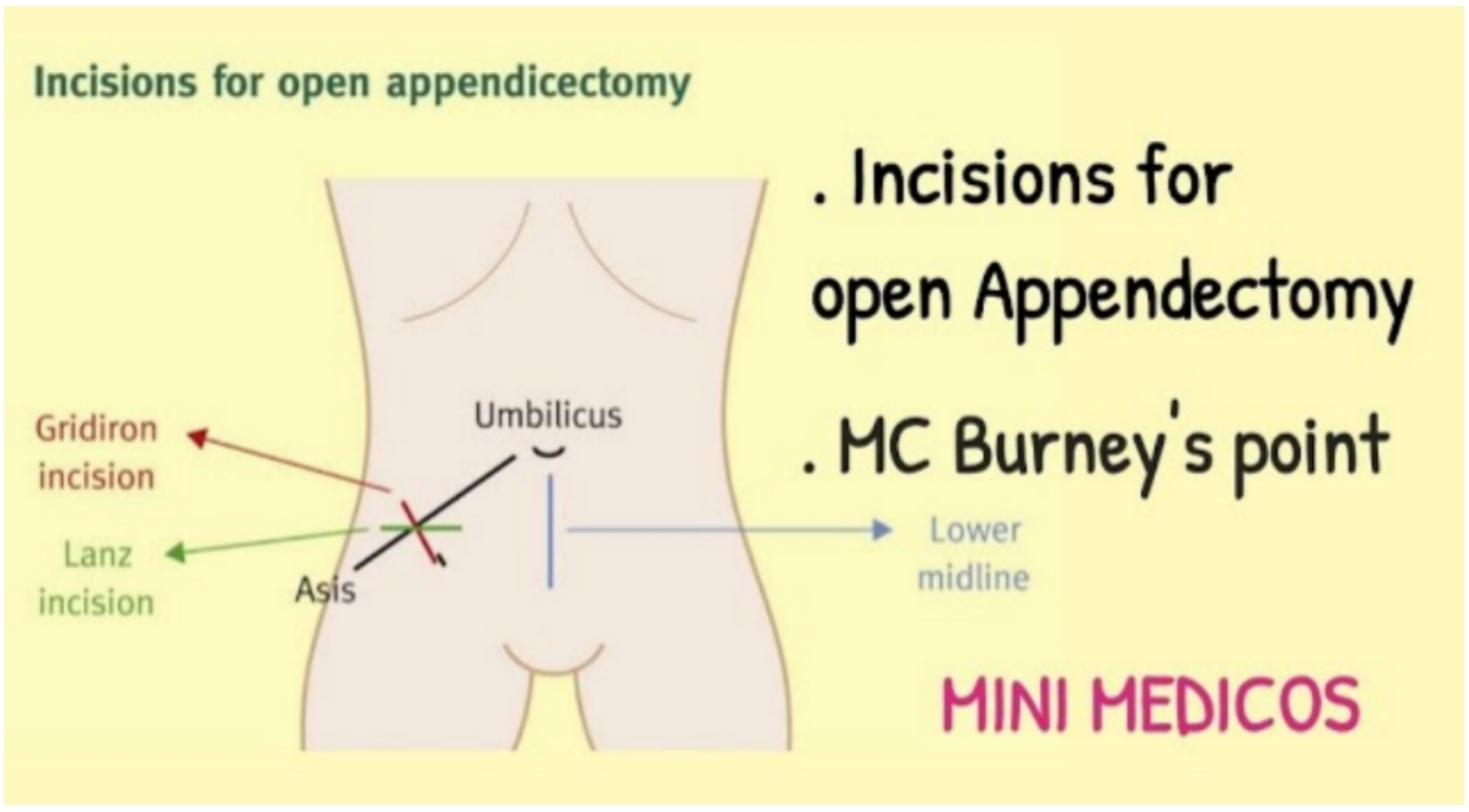
Atypical features
- Dyspepsia
- Flatulence
- Bowel irregularity
- Diarrhea
- Generalized malaise





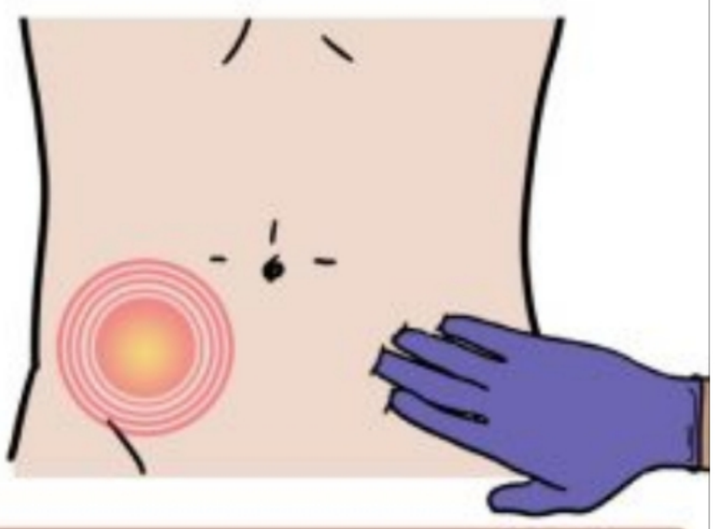


Management
- Appendectomy
- Antibiotics only (reserved for cases of nonperforated, uncomplicated appendicitis)


Incisions for open appendicectomy
Gridiron incision
Lanz incision
Asis
Umbilicus
Lower midline
. Incisions for open Appendectomy
. MC Burney's point
MINI MEDICOS

A Grid-iron incision
B Lanz incision
C Rutherford Morison incision
(shown on the left side for clarity)
A
B
C

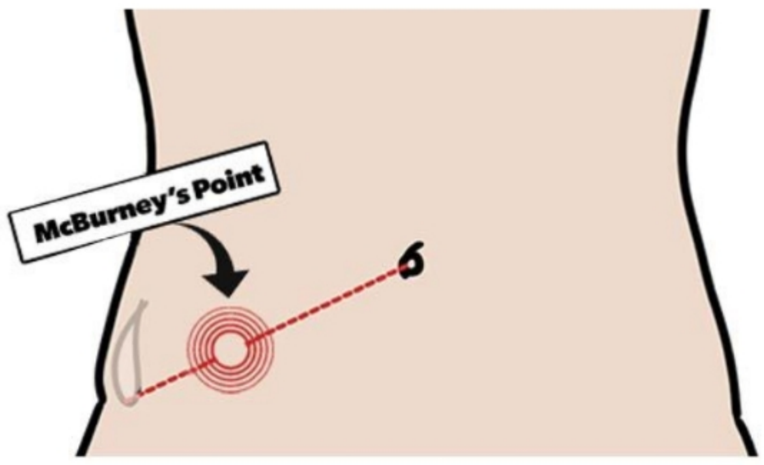
Rovsing's Sign



A positive Rovsing's sign is when there is tenderness in the RLQ **when palpating the LLQ**

This could also mean **appendicitis**

McBurney's Sign



A positive Mcburney's sign is when significant pain is elicited by **palpating this area in the RLQ.**

This could mean appendicitis.

REBOUND TENDERNESS

Locate McBurney's point which is a point 3/4 away from the umbilicus to the R. ASIS in the lower right quadrant to locate the position of the appendix.

A positive finding is when rebound tenderness is felt when pressed upon this point and released quickly.

4 Causes of obstructive jaundice

Investigations

Clinicals signs differentiating between hemolytic and obstructive jaundice

Management

in obstructive jaundice stool color pale, urine color dark, prutitis common, palpable gallbladder common whereas everything is uncommon in hemolytic jaundice and ther is splenomegaly

🟡 Obstructive Jaundice

Definition: Yellowing of skin & sclera due to **bile flow obstruction** → conjugated hyperbilirubinemia.

1️⃣ Common Causes of Obstructive Jaundice

1. **Choledocholithiasis** – stones in CBD
2. **Pancreatic head carcinoma** – compressing CBD
3. **Cholangiocarcinoma** – distal or hilar obstruction
4. **Biliary strictures**

5. choledochal cysts

2️⃣ Investigations

🔹 Laboratory

- **Bilirubin:** ↑ Direct (conjugated)
- ↑ ALP, ↑ GGT
- Mild ↑ AST/ALT

🔹 Imaging

- **Ultrasound:** Dilated intrahepatic & extrahepatic bile ducts
- **CT scan / MRCP:** Detect stones, tumors, strictures
- **ERCP:** Diagnostic & therapeutic (stone removal, stent placement)
- **Liver function tests trend:** Helps differentiate obstructive vs hepatocellular

---

4️⃣ Management

🔹 Initial

- Supportive care: hydration, nutrition
- Treat pruritus: cholestyramine

🔹 Definitive (Cause-specific)

1. **Endoscopic Retrograde Cholangiopancreatography (ERCP)**
   - Stone removal, stent placement
2. **Surgery**
   - Cholecystectomy + CBD exploration (stones/stricture)
   - Whipple procedure (pancreatic head tumor)
3. **Percutaneous biliary drainage** – if ERCP not possible

🔹 Medical management

- Antibiotics if cholangitis
- Pain control

3️⃣ Clinical Signs: Obstructive vs Hemolytic Jaundice

Feature	Obstructive Jaundice	Hemolytic Jaundice
Bilirubin type	↑ Direct (conjugated)	↑ Indirect (unconjugated)
Urine	Dark (bilirubinuria)	Normal (no bilirubin in urine)
Stool	Pale / clay-colored	Normal / dark
Pruritus	Severe	Usually absent
Splenomegaly	Usually absent	May be present
Other features	Abdominal pain, palpable gallbladder (Courvoisier sign)	Anemia, pallor

Mnemonic:

- **Obstructive:** Dark urine, Pale stools, Itching, Pain
- **Hemolytic:** Anemia, No urine change

---

splen

Ulcerative colitis

What investigations will you do

What are signs of inflammation in above scenario

What are the red flag signs in this disease

How to control acute flares

One long term medication name

signs of inflamamtion: abdominal pain, hematochezia, tenesmus, extraintestinal manifestations and fever

red flags: severe fever above 101 F , marked abdominal distention, non stop rectal bleed and dehydration

acute flares: steroids iv and 5 asa. if steroids fail so immunosurpressants like cyclosporine, azathioprine

long term med: mesalamine, azathioprine adalimumab

Ulcerative Colitis

- C - Continuous Lesion
- O - Often Rectum (starts at rectum and spread proximally) - Backwash ileitis
- L - Lead pipe appearance (barium study)
- I - Immunity (p-ANCA positive)
- T - Toxic Megacolon (Dx by X Ray or CT)
- I - Increased risk of cancer (involves colon rather than rectum) - Colonoscopy performed 7-10 years after diagnosis of UC and then repeated every 1-2 years
- S - Smoking protective, Spares the anus
- Pseudopolyps seen in chronic case (differentiating factor from Crohn disease) - Pseudopolyps on sigmoidoscopy indicates that there has been remission and relapse
- Watery or bloody diarrhea - First and hallmark feature
- Investigations - Abdominal X Ray, Barium Enema, Sigmoidoscopy, Colonoscopy and biopsy, Stool culture

Crohn's Disease

Mneminic: SISTER-MACCC

- S - Skip Lesions
- I - Ileum M/C (Terminal ileum Most common)
- S - String Sign of Kantor i.e. narrowed terminal ileum seen on small bowel enema
- S - associated with Saccharomyces Cervicea - ASCA positive
- T - Transmural inflammation, Full thickness
- E - Entire wall
  From Full thickness and entire wall - Remember Fistulas, Fissures
  Fistulas - Enteroenteric fistulas, Enterovesical fistulas, Enterocutaneous fistulas
- R - Rectum spared
- M - Microscopy: Non casseating granuloma (Hallmark)
- M - Megaloblastic anemia (Folate and Vitamin B12 malabsorption)
- A - Aphthous ulcer (First Lesion) - progress to Serpiginous ulcer
- C - Cobblestone appearance (inside of intestine)
- C - Creeping fat (outside of intestine)
- C - Cytokine TNF alpha raised
- C - Calcium oxalate kidney stones
- CT Abdomen and pelvis - best test for acute presentations and complications

---

Paeds interactive .

Meningitis ka scenario tha

And treatment poch rhe the

Which antibiotics

And steroids

immunosur
long term m
adalimumab

steroids among peds: dexa and predisnolone

- **Diagnosis:** (in adults)
  - Blood cultures before starting antibiotics.
  - **Best initial test = lumber puncture (LP)** → performed by placing a needle b/w L4 and L5 (level of iliac crest).
  - **Most accurate test = lumber puncture** Spinal cord ends at L2, but subarach space and cauda equina continue to S
  - CT scan:
    - CT scan of head is necessary BEFORE lumber puncture if there is possibility that a space occupying lesion may cause herniation (i.e. coning).
    - CT scan of head however should NOT delay antibiotic treatment of presumptive meningitis.

Treatment:

- Best Initial Treatment:
  - Ceftriaxone 2g IV 12-hourly + Vancomycin 15-20 mg/kg IV 12-hourly + Steroids
  - Steroids (dexamethasone) therapy:
    - It is given both in children and adults.
    - It is given 15 – 20 minutes before antibiotics for 2 – 4 days.
    - It prevents severe deafness following H. Influenzae type B meningitis

Guillain baree syndrome scenario

And treatment

🔹 Classic Clinical Scenario (OSCE)

Patient: 28-year-old male

History:

- Progressive weakness of lower limbs over 5 days
- Ascending pattern → hands affected
- Tingling / paresthesia in feet and hands
- Recent diarrheal illness 2 weeks ago

Examination:

- Symmetric **flaccid weakness**
- **Areflexia / hyporeflexia**
- Sensory symptoms: mild (pins & needles)
- Cranial nerves may be involved (facial weakness)
- No fever

Red Flags:

- Respiratory involvement (decreasing tidal volume) → ICU monitoring needed
- Autonomic dysfunction: tachycardia, labile BP

🧠 Guillain-Barré Syndrome (GBS)

Definition:

Acute **immune-mediated demyelinating polyneuropathy** causing **rapid-onset, ascending weakness.**

Typical Trigger:

- Often follows **Campylobacter jejuni infection**, respiratory or GI infection, or vaccination.

🧪 Investigations

1. Lumbar Puncture (CSF analysis)
   - Albuminocytologic dissociation: ↑ protein, normal WBC
2. Nerve Conduction Study / EMG
   - Demyelinating pattern: slowed conduction, conduction block
3. Baseline labs
   - CBC, electrolytes, renal function (for supportive care)
4. Monitor:
   - Respiratory function: FVC, oxygen saturation

💊 Treatment

1️⃣ Supportive Care (Crucial)

- ICU admission if respiratory compromise
- Monitor respiratory function → mechanical ventilation if FVC < 15–20 mL/kg
- Deep vein thrombosis prophylaxis
- Pain management
- Physiotherapy

2️⃣ Disease-Modifying Therapy (Early)

⭐ Intravenous Immunoglobulin (IVIG)

- Dose: **0.4 g/kg/day × 5 days**
- Equivalent efficacy to plasma exchange
- Preferred for ease of use

⭐ Plasmapheresis (Plasma Exchange)

- 4–6 exchanges over 10–14 days
- Removes circulating antibodies
- Alternative if IVIG contraindicated

> **Do NOT use steroids alone** – ineffective in GBS

Forwarded many times

Paper Q
1: myesthenia gravis
2: spontaneous bacterial peritonitis
3: jaundice
4: postpartum depression
5: OCD
6: ceilic disease
7: bacterial meningitis
8:x ray (renal stone pmuse intestinal obstruction)
9:ERCP
10: peads interactive (pyloric stenosis?

11 : interactive(Raccoon eye plus battel sign
12: Meckel's diverticulim
13: hydatid cya
14: interstitnal tuberculosis
14: peads lower motor examination
15: git examination
16: external (cirhosis case
18: cerebellar examination
19: psciytry interactive sleep hygiene counseling

★ 15:36

BLOCK Q : 4/3/25
1.Status epilepticus viva dx and Mx
2.Abdominal exam
3.Lower limb examination
4.Acute cholecystitis scenario viva
5.Acute appendicitis viva
6.Enteric fever viva
7.SAH viva
8.Schizophrenia
9.Anxiety disorders
10.Ascites exam
11.Trigeminal n exam
12.EDH CT scan
13.bells palsy pic static
14.Meningitis static
15.Sigmoid volvulus xray viva
16.achalasia barium swallow static
17.Hepatic encephalopathy static
18.log book

Q:
Hep b counciling
Suicide attempt counciling
Cocain abuse

Peads
Bacterial meningitis
Vomiting hx questions
Abd examination n gpe

Neurosurgery skull ct

Spider nevi
Mca stroke
Variceal bleed

Parkland formula
Inguinal hernia 2 stations
Appendicitis
Xray kub n thorax
Pain right hypochondrium

Abd examination
Cerebellar signs ★ 15:36

+92 336 1615152 ▸ Final Year Slides/Updates🙌 09/03/

Forwarded

Block Q
1..Psychiatry--'> viva (OCD, opiods withdrawal, autism,)
2.. psych---> Somatoform disorders --> written station
3..>paeds--->mucopolysacharoidisis ---interactive
4..-> paeds-> pt with jaundice and hepatomegaly and sibling with jaundice ---releveant examination for jaundice
5..-->surgery--> obstructive jaundice due to CBD , charcot triad, therapeutic and diagnostic measure --> ercp ---> interactive
6.--> ileostoma , inspection and realtive questions --> interactive
7..--> direct inguinal hernia and questions --< written
8. Findings given in question of IBD --> DDx

measure --> ercp ---> interactive
6.--> ileostoma , inspection and realtive questions --> interactive
7..--> direct inguinal hernia and questions --< written
8. Findings given in question of IBD --> DDx --->complications and extraintestinal manifestation
9. Meningimyelocele scenario and pic ---> dx, ddx, Investigations
10. Hemorrhagic stroke ct
11. High altitude sickness
12. Facial never examination
13. Heat stroke viva
14. To look for signs of cirrhosis in pateint
15. Carbidopa levodopa drug given --> relevant questions
16. Hirshprung x ray and questions
17.bacterial meningitis written

★ 15:36

+92 336 1615152 ▸ Final Year Slides/Updates🙌 09/0

Forwarded

Block Q
Abdominal examination
Cerebellar examination 2 stations
GBS
Acute pancreatitis
Acute appendicitis
Mastectomy councelling
Suicide risk assessment
Brucellosis
Spinal needle
Log book
Upper limb exam
Jaundice 2 station
Meningitis/febrile fits
CA breast
Bulimia and anorexia nervosa
Hydrocephalus

★ 15:36

Station (4): 30yr old → C/C: fever, Abdominal pain → Radiating to back + Nausea →

(1) H/O Gallstones:

(1) Diagnosis: Gallstones pancreatitis (Billiary pancreatitis)

(2) Investigations: (1) Serum amylase/lipase. (2) LFTs (3) CBC (4) CRP (5) U/S (6) CECT (7) MRCP (8) ERCP.

(3) 3 Complications: (1) Pancreatic Necrosis → sepsis/Multi organ failure (2) Pseudocyst formation (3) Billiary sepsis/cholangitis

Hydrocephalus

By Mr Usha

Hydrocephalus is a condition where excess cerebrospinal fluid (CSF) builds up inside the brain's ventricles, causing increased pressure on the brain.

Common Causes

- Congenital (present at birth)
- Brain infections (like meningitis)
- Brain tumors
- Head injury
- Brain bleeding (especially in newborns or elderly)
- Blockage of CSF flow

Symptoms in Infants

- Enlarged head size
- Bulging soft spot (fontanelle)
- Vomiting
- Seizures
- Poor feeding
- Irritability
- Sun-setting eyes (downward gaze)

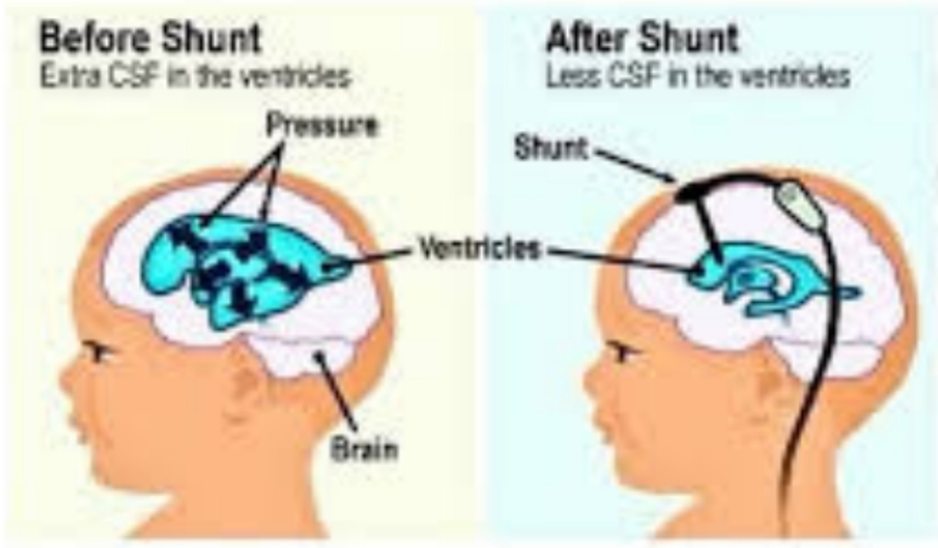
Diagnosis

- CT scan or MRI of the brain
- Measurement of CSF pressure
- Neurological examination

Treatment

The main treatment is surgery:

- VP Shunt (Ventriculoperitoneal Shunt) – drains excess fluid to the abdomen
- Endoscopic Third Ventriculostomy (ETV) – creates a new drainage pathway



There is no permanent medication cure, but symptoms can dramatically improve after surgery.

1. Types

- **Communicating:** CSF flows freely between ventricles, but the "drain" (arachnoid villi) is clogged, preventing absorption into the blood.
- **Non-Communicating (Obstructive):** A physical "dam" (tumor, narrowing) blocks fluid flow within the narrow passages of the brain.
- **Normal Pressure (NPH):** Ventricles enlarge but pressure stays near normal; primarily affects older adults.
- **Hydrocephalus ex-vacuo:** Not "true" hydrocephalus; the brain shrinks (due to stroke or Alzheimer's) and CSF fills the empty space.

Hepatitis B Counseling – Pregnant Lady (OSCE Style)

1️⃣ Introduction & Rapport

- Assalam o Alaikum, I'm Dr _____.
- I understand you've been diagnosed with **Hepatitis B** during pregnancy. I know this can be worrying, but I'm here to explain everything and guide you.
- Is it okay if we discuss your condition and what it means for you and your baby?

2️⃣ What is Hepatitis B?

- **Hepatitis B** is a viral infection that affects the liver.
- Many people live normal lives with it.
- The main concern in pregnancy is preventing transmission to the baby.

3️⃣ How It Affects Pregnancy

- Most mothers with Hepatitis B have **normal pregnancies**.
- The main risk is **vertical transmission (mother to baby during birth)**.
- Without treatment, transmission risk can be:
  - 10–20% if viral load low
  - Up to 90% if mother is highly infectious (HBeAg positive)

But the good news is:

👉 With proper management, we can reduce the baby's risk to **less than 1–5%**.

4️⃣ Investigations Needed

We will check:

- HBsAg (already positive)
- HBeAg
- HBV DNA (viral load)
- Liver function tests (ALT, AST)

These help decide if you need medication during pregnancy.

5️⃣ Treatment During Pregnancy

- If viral load is high (>200,000 IU/mL), we start antiviral treatment in 3rd trimester.
- The safest and commonly used drug is:

👉 **Tenofovir disoproxil fumarate**

- It is safe in pregnancy.
- It reduces viral load and protects baby.

6️⃣ Delivery Plan

- Normal vaginal delivery is safe.
- C-section is NOT required just because of Hepatitis B.
- Avoid invasive fetal monitoring if possible.

50 year old woman with painless swelling in breast and no axillary involvement

Breast cancer (most commonly invasive ductal carcinoma)

🔬 Investigations (Triple Assessment – GOLD STANDARD)

1️⃣ Clinical Examination

- Lump characteristics (size, mobility, margins)
- Skin changes (dimpling, peau d'orange)
- Nipple retraction/discharge

2️⃣ Imaging

- **Mammography** (first line in >40 years)
- Breast Ultrasound
- MRI (if needed)

3️⃣ Tissue Diagnosis (Confirmatory)

- FNAC
- Core needle biopsy (preferred)
- Excisional biopsy (if needed)

4️⃣ If Malignancy Confirmed

- ER/PR receptor testing
- HER2 status
- Chest X-ray
- Abdominal ultrasound
- Bone scan (if metastasis suspected)

Differential Diagnoses (D/Ds)
Fibroadenoma
Breast cyst
Fat necrosis
Phyllodes tumor
Breast abscess

⚠️ Risk Factors for Breast Cancer

Non-modifiable:

- Female gender
- Increasing age (>50)
- Family history (BRCA mutation)
- Early menarche
- Late menopause
- Nulliparity
- First pregnancy after 30

Modifiable:

- Obesity
- Alcohol use
- Hormone replacement therapy
- Lack of breastfeeding

Hepatitis C Counseling in pregnant woman

2️⃣ What is Hepatitis C?

- Caused by **Hepatitis C virus** (HCV)
- A viral infection that affects the liver.
- Spread mainly through infected blood (transfusions, needles, etc.).
- Many people have no symptoms.

3️⃣ Reassurance About Pregnancy

- Most women with Hepatitis C have **normal pregnancies**.
- The majority of babies are born healthy.

4️⃣ Risk to the Baby (Vertical Transmission)

- Risk of transmission from mother to baby: **~5–6%**
- Risk increases if:
  - High viral load
  - Co-infection with **Human immunodeficiency virus** (HIV)

❗ Transmission usually occurs during delivery, not during pregnancy.

4️⃣ Risk to the Baby (Vertical Transmission)

- Risk of transmission from mother to baby: **~5–6%**
- Risk increases if:
  - High viral load
  - Co-infection with **Human immunodeficiency virus** (HIV)

❗ Transmission usually occurs during delivery, not during pregnancy.

5️⃣ Mode of Delivery

- **Cesarean section is NOT routinely recommended** just for Hepatitis C.
- Normal vaginal delivery is acceptable.
- Avoid:
  - Prolonged rupture of membranes
  - Fetal scalp electrodes
  - Instrumental trauma if possible

6️⃣ Breastfeeding

- Breastfeeding is **SAFE**
- Avoid breastfeeding if:
  - Nipples are cracked or bleeding

7️⃣ Treatment During Pregnancy

- Current antiviral drugs (DAAs like sofosbuvir) are **NOT routinely recommended in pregnancy**.
- Treatment is usually given **after delivery**.

8️⃣ Monitoring During Pregnancy

- Liver function tests
- HCV viral load
- Routine antenatal care

9️⃣ After Delivery (Baby Care)

- Baby will be tested:
  - HCV RNA at 2–3 months

    OR
  - Anti-HCV antibodies after 18 months

Most babies clear the virus on their own.

🔟 Lifestyle Advice

- Avoid alcohol
- Do not share razors, toothbrushes
- Ensure safe medical procedures
- Vaccinate for:
  - Hepatitis A virus
  - Hepatitis B virus

🧠 Mini-Mental State Examination (MMSE)

The **Mini-Mental State Examination (MMSE)** is a **30-point cognitive screening test** used to assess **cognitive impairment**, commonly in:

- Dementia (e.g., Alzheimer's disease)
- Delirium
- Stroke
- Brain injury
- Monitoring progression of cognitive decline

📋 Structure of MMSE (30 Marks)

1️⃣ Orientation (10 marks)

Time (5 marks)

- Year
- Season
- Date
- Day
- Month

Place (5 marks)

- Country
- City
- Hospital/clinic name
- Floor
- Room/ward

👉 1 mark each correct answer.

2️⃣ Registration (3 marks)

Name **3 unrelated objects** (e.g., *apple, table, penny*).

Ask patient to repeat them.

👉 1 mark for each correct.

3️⃣ Attention & Calculation (5 marks)

Either:

- Serial 7s: subtract 7 from 100 (5 times)

  OR
- Spell **WORLD** backwards

👉 1 mark for each correct answer.

4️⃣ Recall (3 marks)

Ask the patient to recall the **3 objects** mentioned earlier.

👉 1 mark each.

5️⃣ Language (8 marks)

Naming (2 marks)

Show a pen and watch → ask patient to name them.

Repetition (1 mark)

Ask to repeat:

> "No ifs, ands, or buts."

3-Stage Command (3 marks)

Example:

> "Take this paper in your right hand, fold it, and place it on the floor."

Reading (1 mark)

Show written command: *"Close your eyes."*

Writing (1 mark)

Ask patient to write a meaningful sentence.

6️⃣ Visuospatial (1 mark)

Ask patient to copy **intersecting pentagons**.

📊 Interpretation

Score	Interpretation
24–30	Normal
18–23	Mild cognitive impairment
10–17	Moderate impairment
<10	Severe impairment

🧠 Cerebellar Signs in Pediatrics

Cerebellar lesions in children commonly present with **ataxia**. Causes include:

- Medulloblastoma
- Acute cerebellar ataxia
- Friedreich's ataxia
- Posterior fossa tumor

📋 Major Cerebellar Signs (OSCE Friendly)

Think: **DANISH**

🔹 D – Dysdiadochokinesia

- Inability to perform rapid alternating movements
- Ask child to rapidly pronate–supinate hands

🔹 A – Ataxia

- **Gait ataxia** (wide-based, unsteady walk)
- Truncal ataxia (sitting instability in younger children)

🔹 N – Nystagmus

- Involuntary eye movements
- Usually horizontal and worsens on lateral gaze

🔹 I – Intention tremor

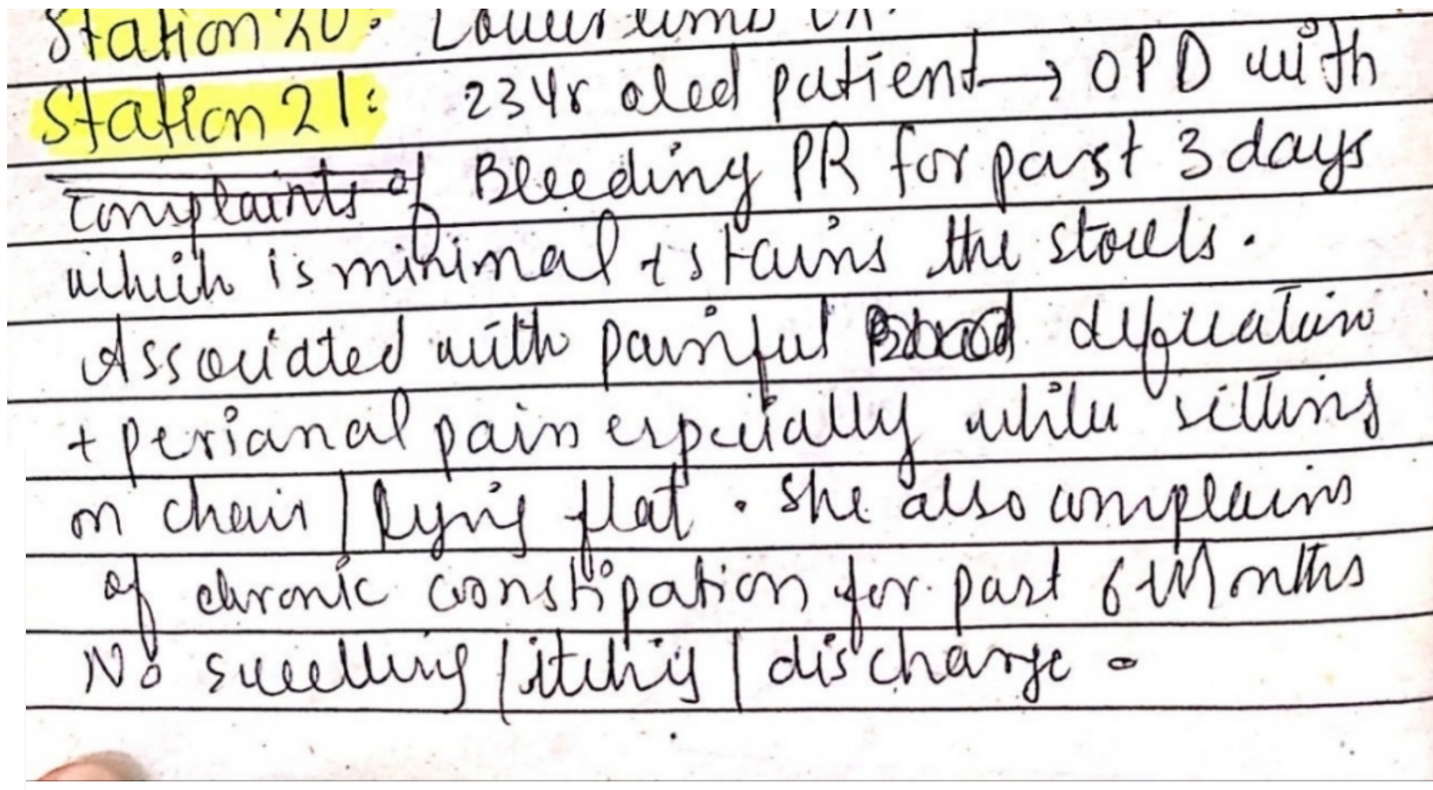
- Tremor increases as finger approaches target (finger–nose test)

🔹 S – Slurred speech (Scanning speech)

- Slow, broken, irregular speech

🔹 H – Hypotonia

- Decreased muscle tone



23-year-old patient → OPD

Complaints:

- Bleeding per rectum × 3 days (minimal, stains stool)
- Painful defecation
- Perianal pain (worse on sitting / lying flat)
- Chronic constipation × 6 months
- No swelling / itching / discharge

🩺 Most Likely Diagnosis

Acute Anal Fissure

Differentials

Internal Hemorrhoids
Thrombosed External Hemorrhoid
Perianal Abscess
Anal Fistula
Inflammatory Bowel Disease

🔬 Investigations

👉 Diagnosis is mainly **clinical**

1️⃣ Local Examination

- Inspection: tear at posterior midline (most common site)
- Sentinel pile (chronic fissure)
- Sphincter spasm

2️⃣ Digital Rectal Exam

- Often avoided in acute fissure (very painful)

3️⃣ Proctoscopy

- Done after pain relief if needed

4️⃣ If atypical/recurrent:

- Colonoscopy (to rule out IBD, malignancy)

💊 Management

🔹 Conservative (First-line)

1. Treat constipation:
   - High fiber diet
   - Psyllium husk
   - Plenty of fluids
2. Stool softeners:
   - Lactulose
3. Sitz bath:
   - Warm water 10–15 mins, 2–3 times daily
4. Topical treatment:
   - 0.2–0.4% Glyceryl trinitrate ointment

     OR
   - Topical diltiazem
5. Analgesics:
   - NSAIDs (if needed)

🔹 If Chronic / Not Improving (6–8 weeks)

- Botulinum toxin injection
- Lateral internal sphincterotomy (definitive treatment)

🚶 Abnormal Gaits in Pediatrics

1️⃣ Cerebellar (Ataxic) Gait

- Wide-based
- Unsteady
- Staggering

Seen in:

- Medulloblastoma
- Acute cerebellar ataxia

2️⃣ Spastic (Scissoring) Gait

- Stiff legs
- Legs cross while walking
- Toe walking

Seen in:

- Cerebral palsy

3️⃣ Waddling Gait

- Pelvic drop
- Proximal muscle weakness
- Positive Gowers sign

Seen in:

- Duchenne muscular dystrophy

4️⃣ Toe Walking

- Walks on toes
- Can be normal <3 years
- Persistent → neurological cause

Seen in:

- Autism spectrum disorder
- Spastic CP

5️⃣ Hemiplegic Gait

- One stiff leg
- Circumduction of affected limb
- Arm flexed on same side

Seen in:

- Cerebral palsy

6️⃣ Trendelenburg Gait

- Hip drops on opposite side
- Weak hip abductors

Seen in:

- Developmental dysplasia of the hip

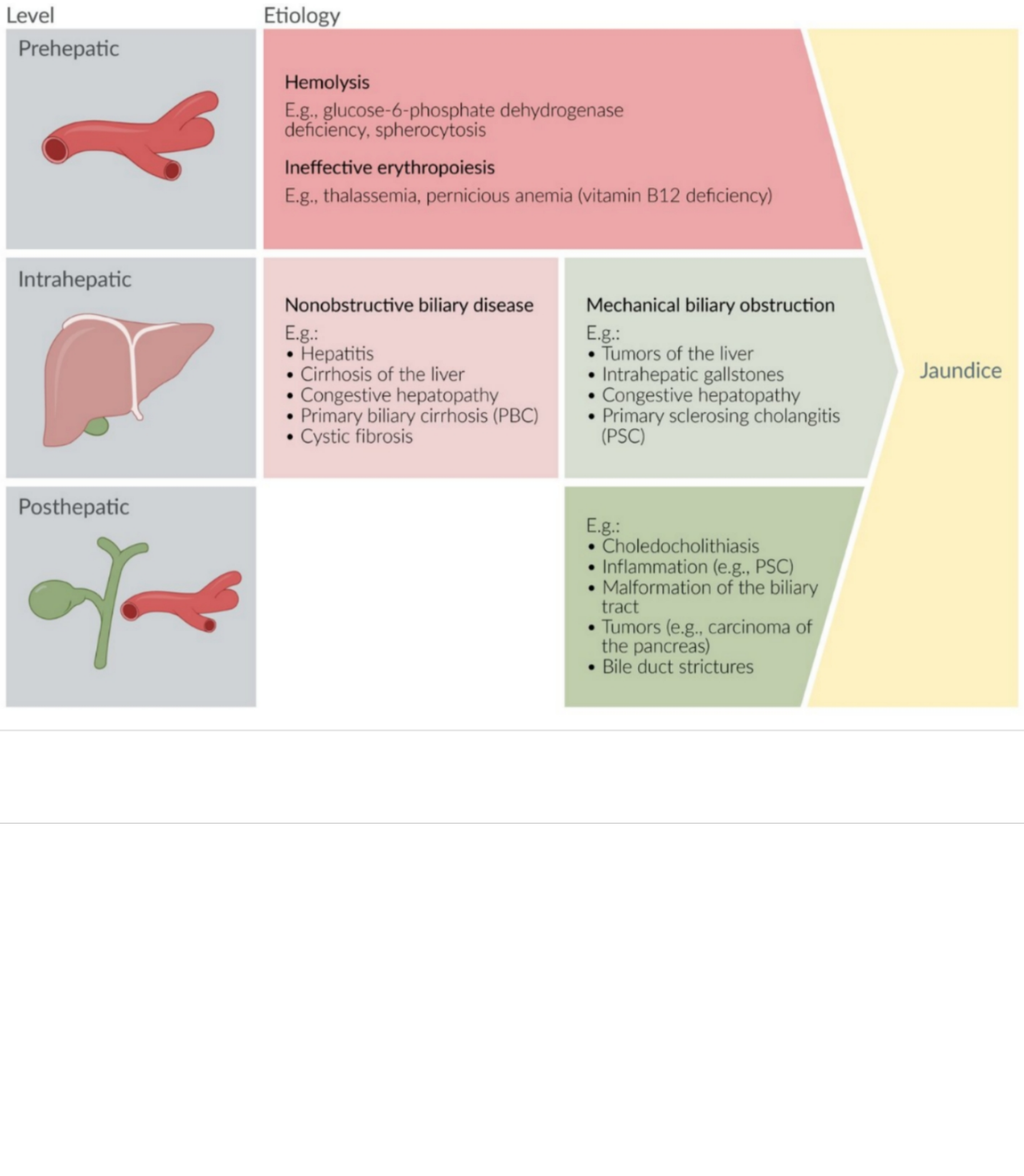
7️⃣ Antalgic Gait

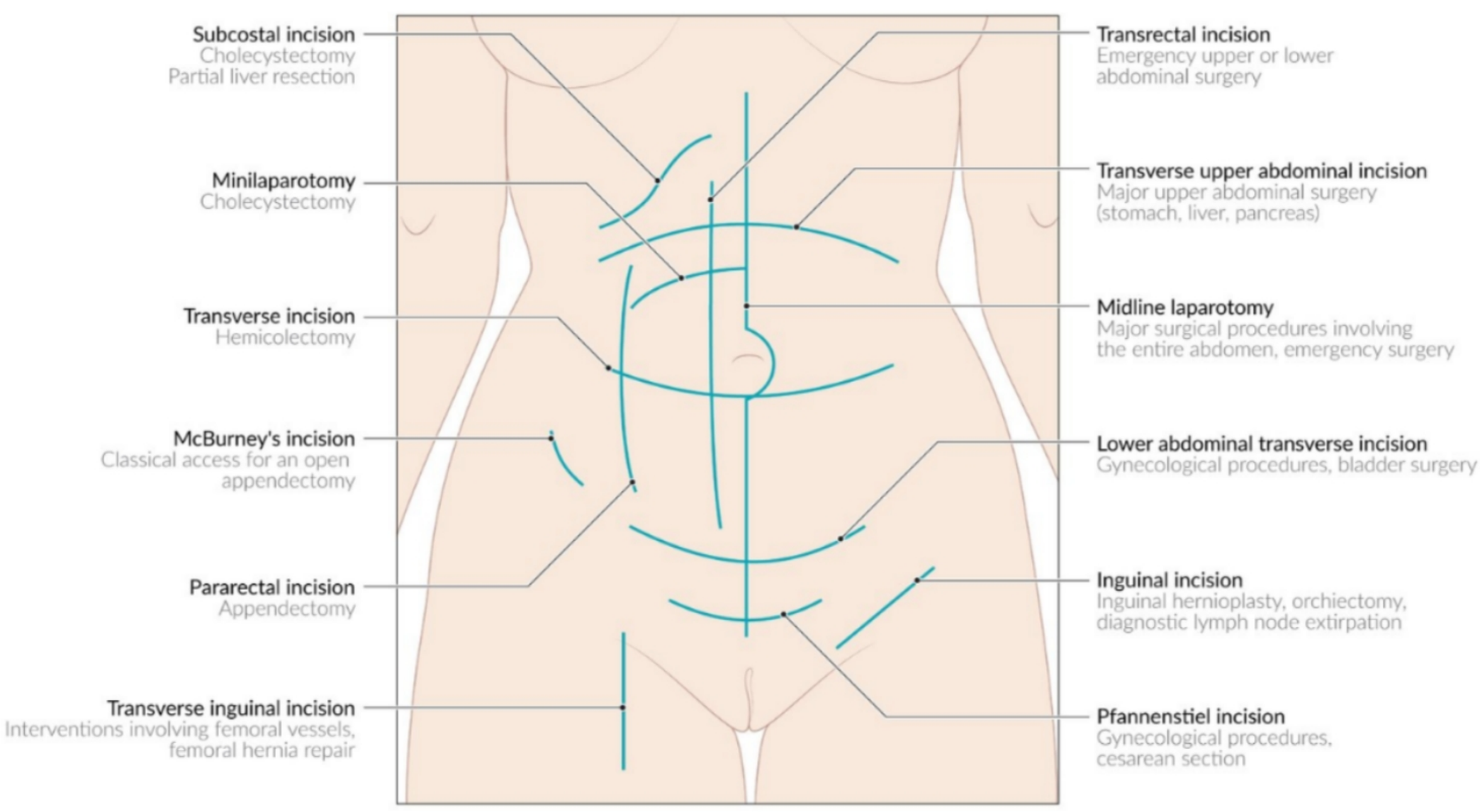
- Short stance phase
- Avoids weight on painful limb

Seen in:

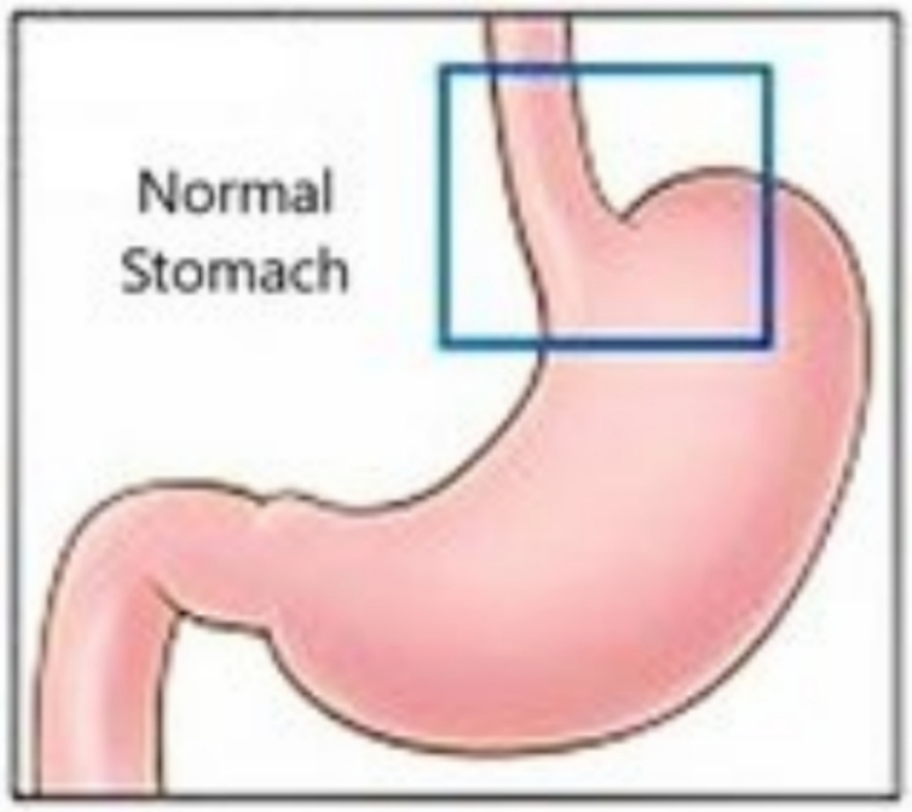
- Septic arthritis
- Trauma

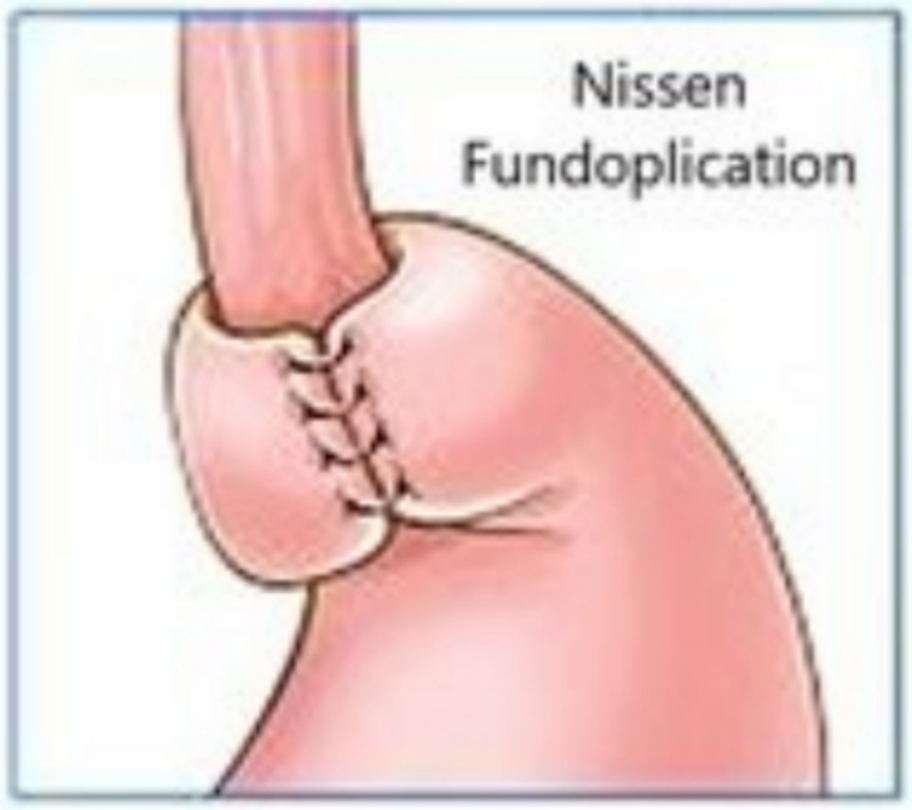
Jaundice

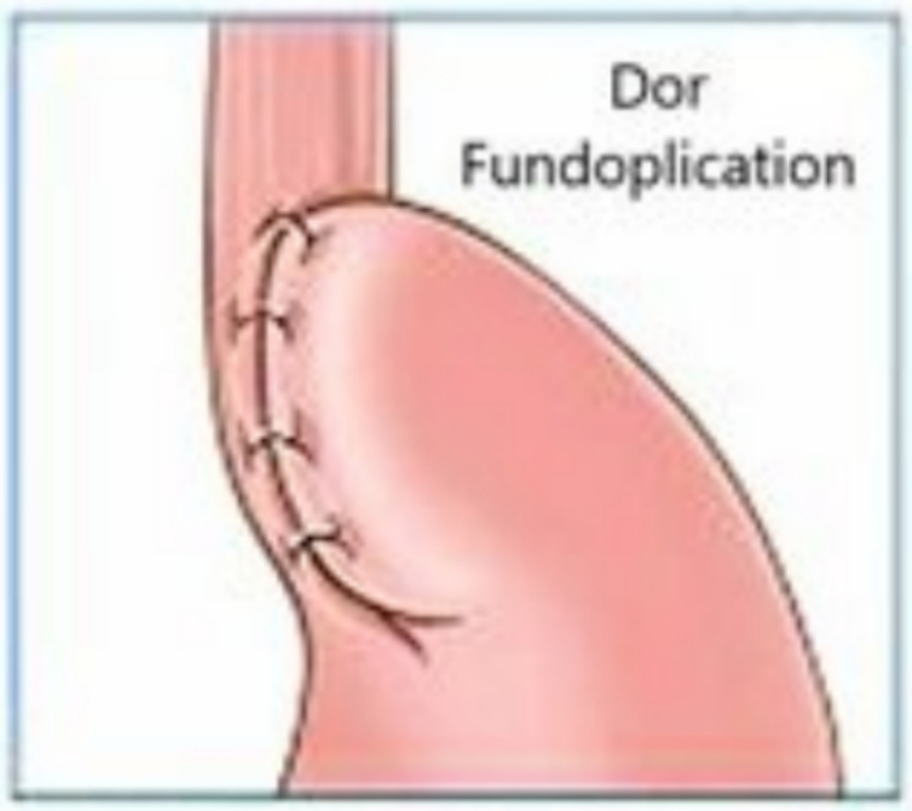

Level
Etiology
Prehepatic
Hemolysis
E.g., glucose-6-phosphate dehydrogenase deficiency, spherocytosis
Ineffective erythropoiesis
E.g., thalassemia, pernicious anemia (vitamin B12 deficiency)
Intrahepatic
Nonobstructive biliary disease
E.g.:
• Hepatitis
• Cirrhosis of the liver
• Congestive hepatopathy
• Primary biliary cirrhosis (PBC)
• Cystic fibrosis
Mechanical biliary obstruction
E.g.:
• Tumors of the liver
• Intrahepatic gallstones
• Congestive hepatopathy
• Primary sclerosing cholangitis (PSC)
Posthepatic
E.g.:
• Choledocholithiasis
• Inflammation (e.g., PSC)
• Malformation of the biliary tract
• Tumors (e.g., carcinoma of the pancreas)
• Bile duct strictures
Jaundice

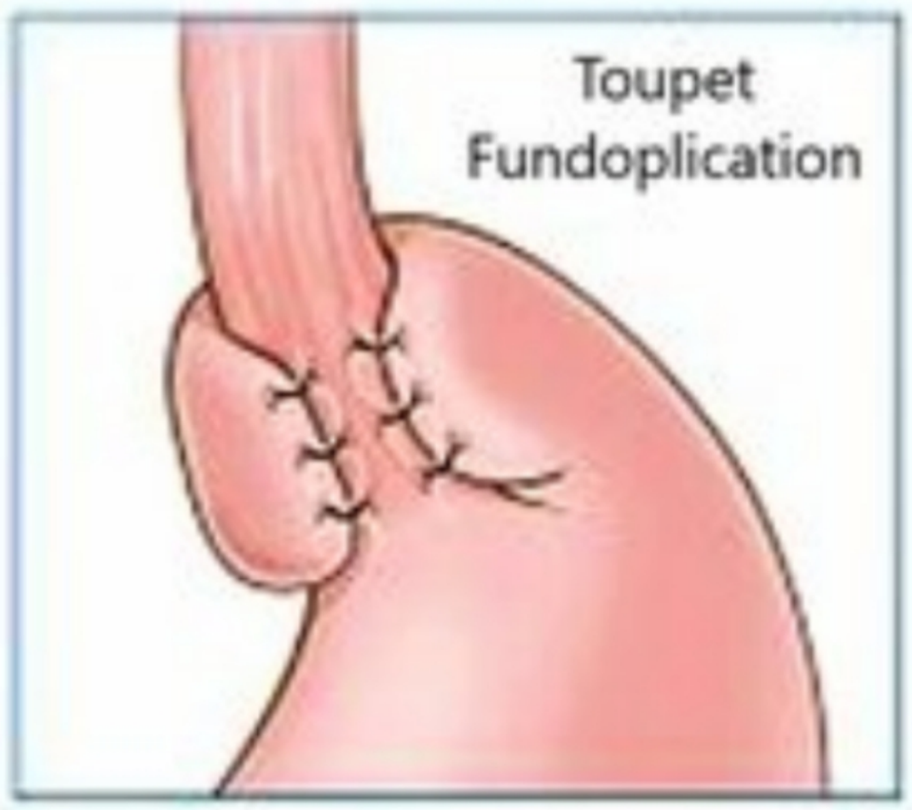

Subcostal incision
Cholecystectomy
Partial liver resection
Minilaparotomy
Cholecystectomy
Transverse incision
Hemicolectomy
McBurney's incision
Classical access for an open appendectomy
Pararectal incision
Appendectomy
Transverse inguinal incision
Interventions involving femoral vessels, femoral hernia repair
Transrectal incision
Emergency upper or lower abdominal surgery
Transverse upper abdominal incision
Major upper abdominal surgery (stomach, liver, pancreas)
Midline laparotomy
Major surgical procedures involving the entire abdomen, emergency surgery
Lower abdominal transverse incision
Gynecological procedures, bladder surgery
Inguinal incision
Inguinal hernioplasty, orchiectomy, diagnostic lymph node extirpation
Pfannenstiel incision
Gynecological procedures, cesarean section

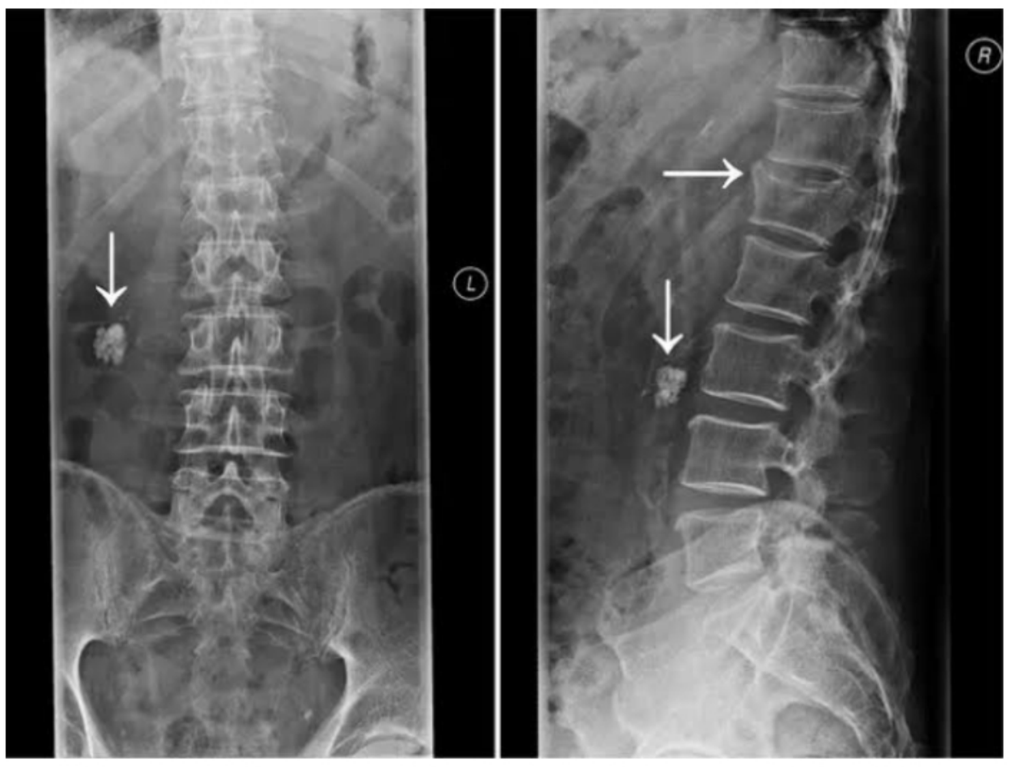
Fundoplication for GERD





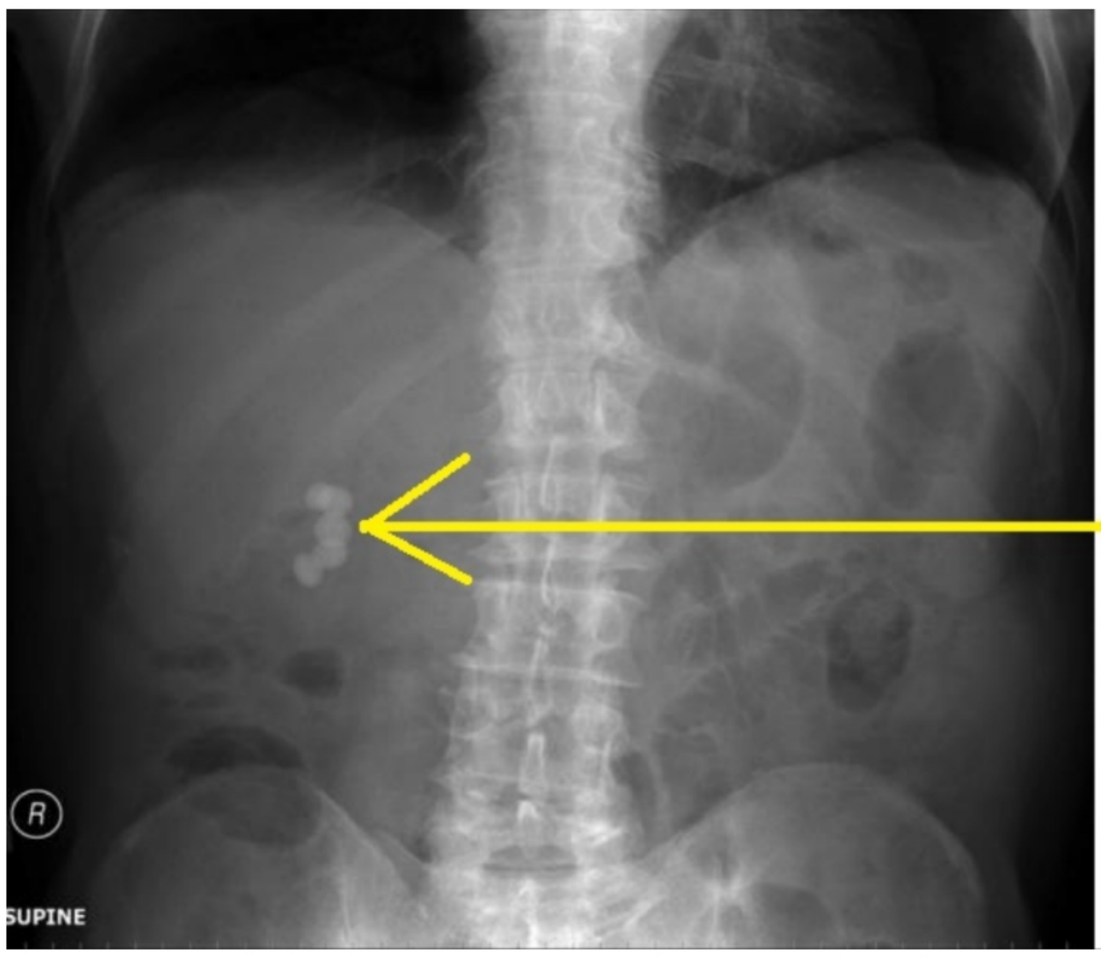




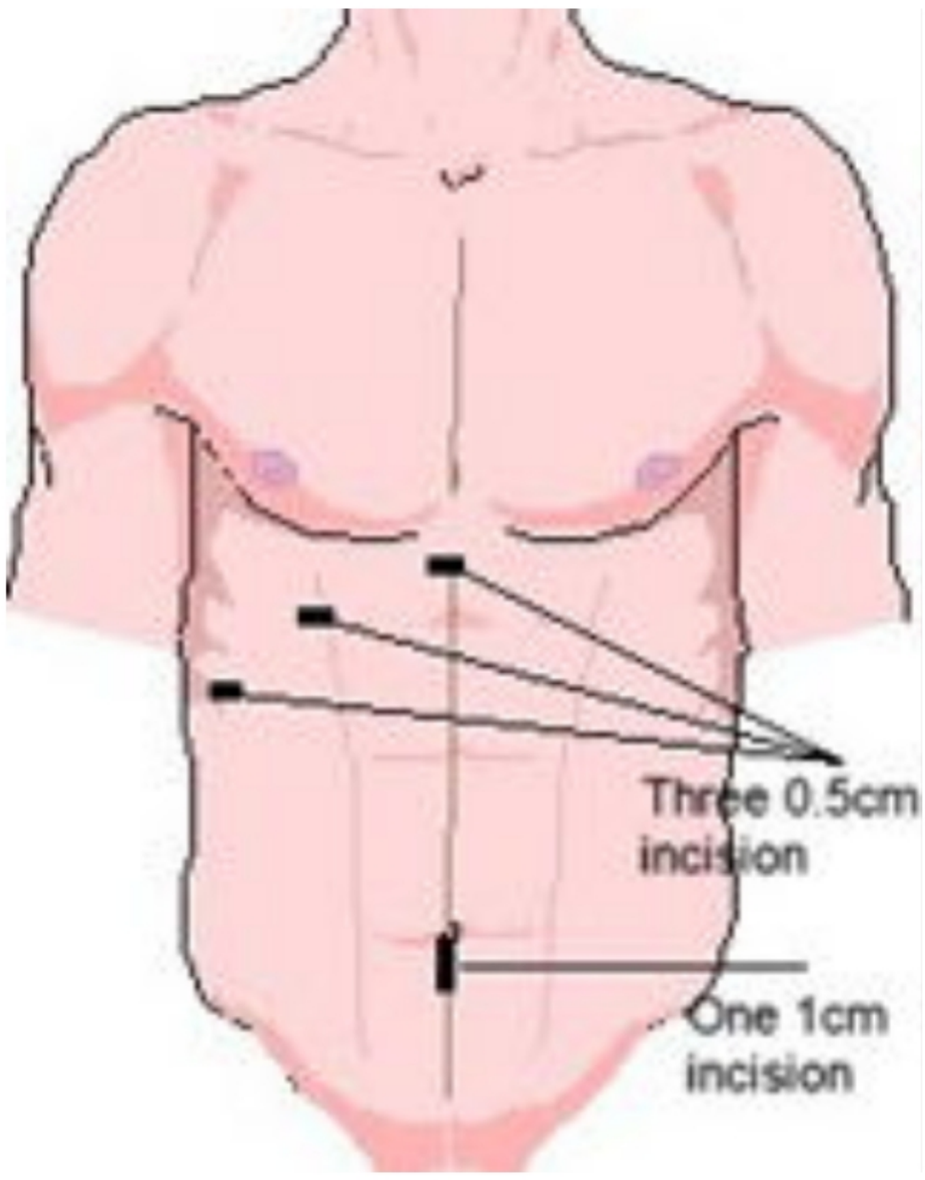


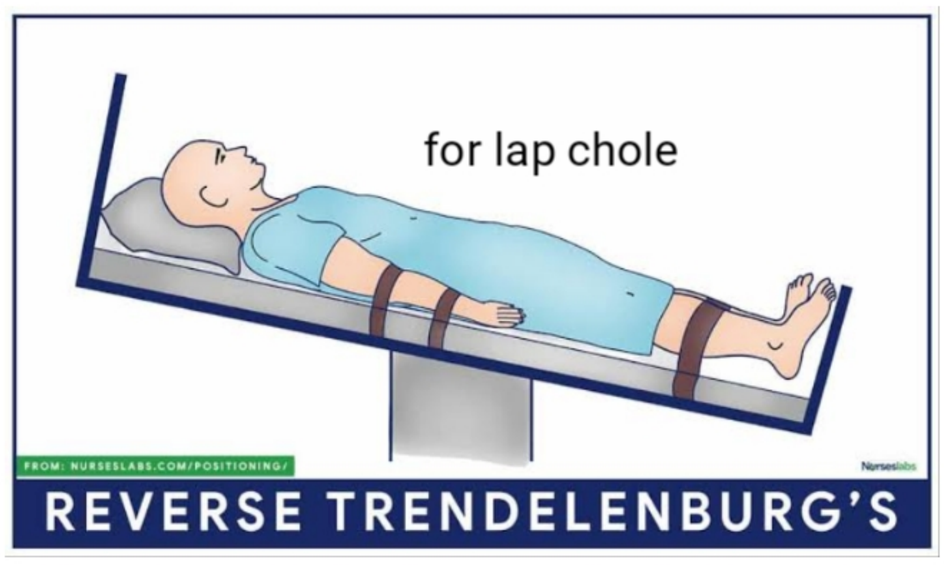
Gallstones

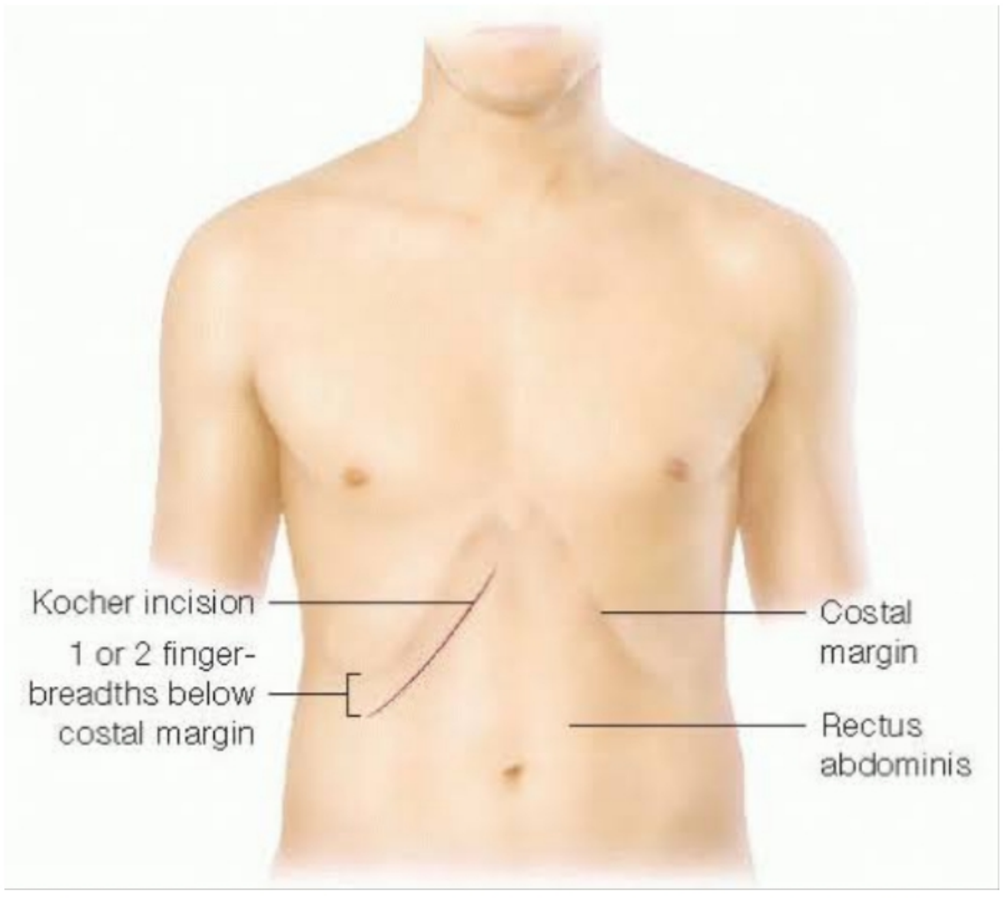

Right

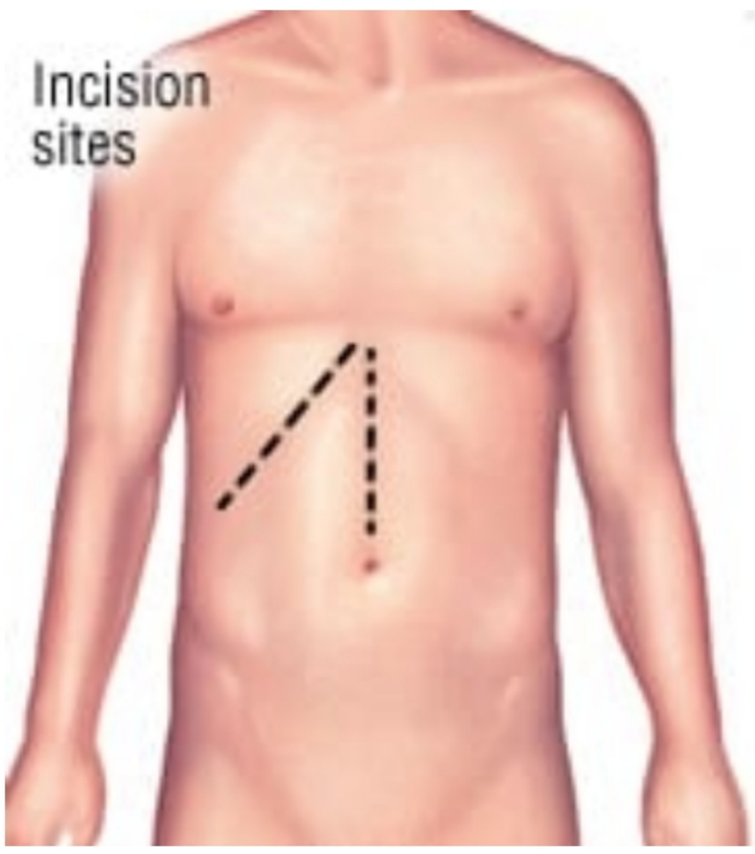

Gallstones shown within the gallbladder cavity
SUPINE

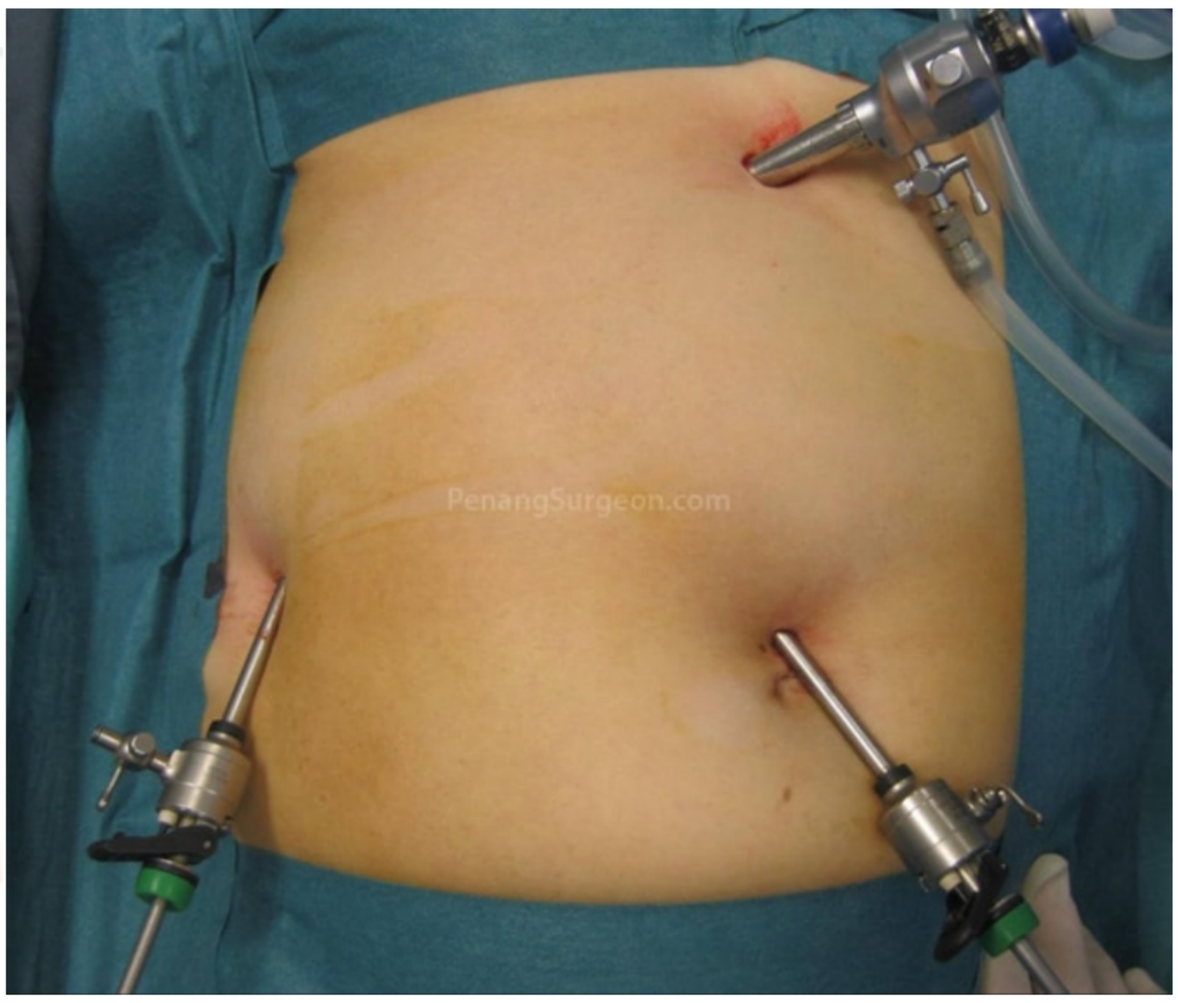
Cholecystectomy



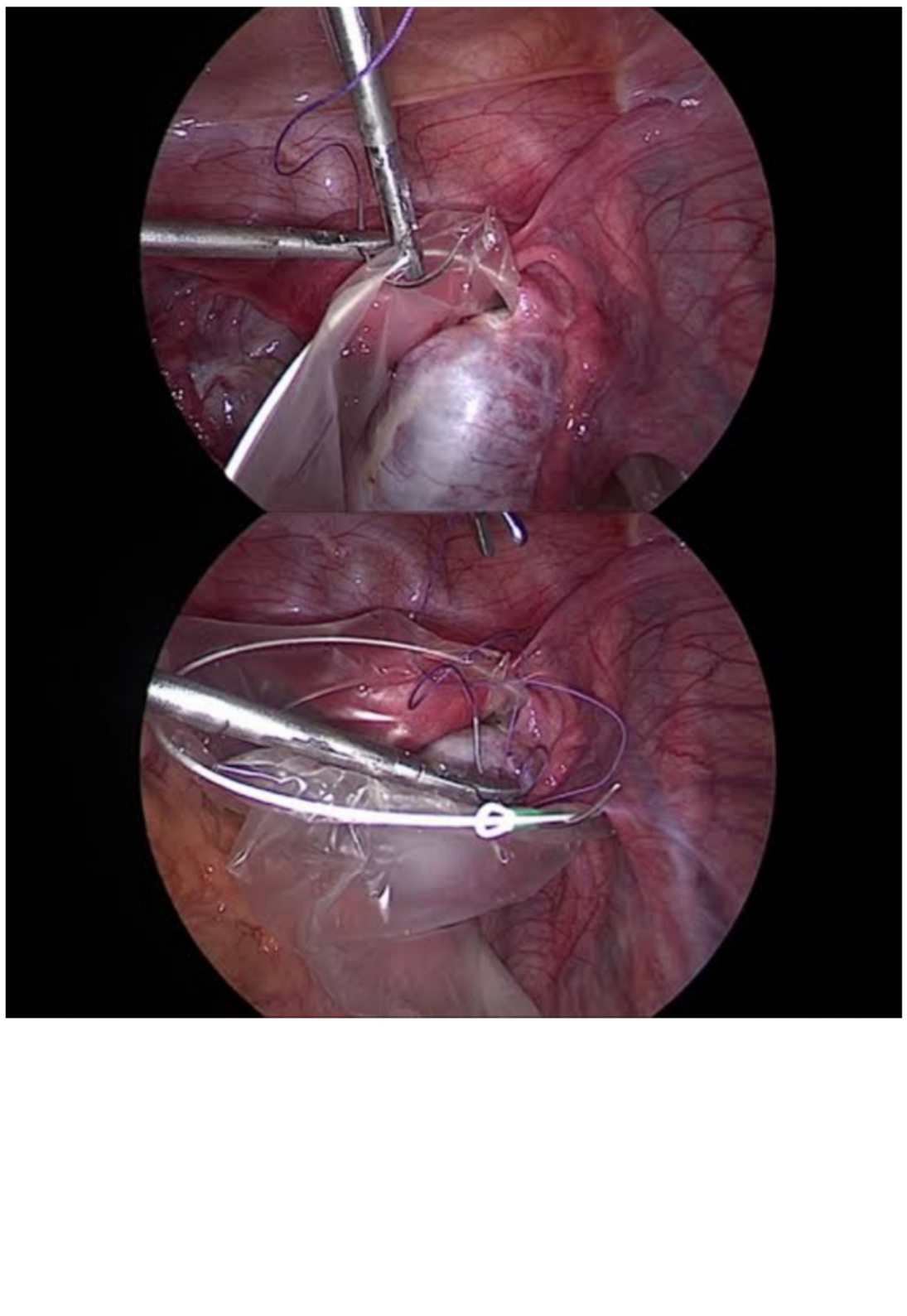








An endobag (or specimen retrieval bag) is a sterile, single-use pouch used in minimally invasive (laparoscopic/endoscopic) surgery to collect and safely remove tissues, organs, or foreign objects from the body, preventing contamination of the abdominal cavity, especially with cancerous or infected samples like gallbladders, appendices, or tumors.



Down's Syndrome

- Microgenia
- Macroglossia
- Epicanthic folds
- Single transverse palmar crease
- Complete AV septal defects

Station No 4 Viva on schizophrenia from Usman Masood Medicine

II. Schizophrenia:

(i). Introduction:

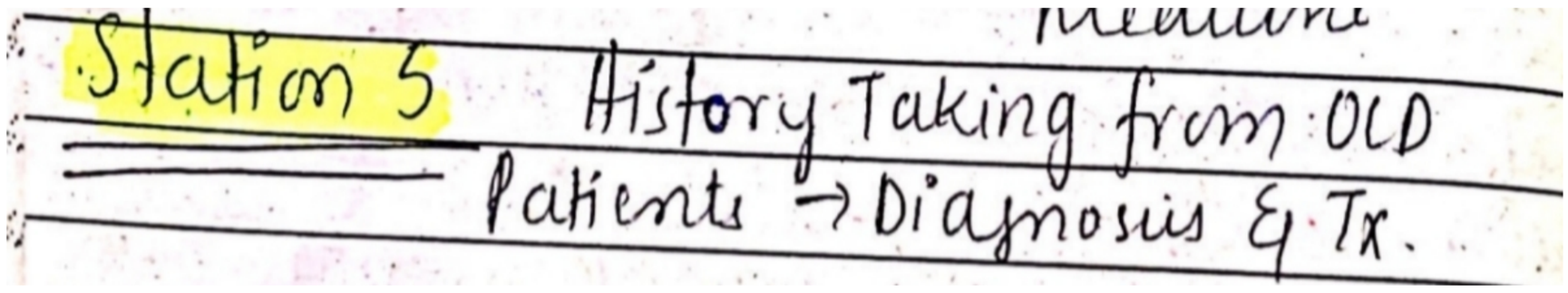
- It is a thought disorder characterized by delusions, hallucinations, and lack of insight.
- It is a neurodevelopmental disorder, caused by brain developmental abnormalities, genetic predisposition, environmental influences & triggers.
- It is a syndrome with several symptom domains, including:
  - Positive symptoms
  - Negative symptoms
  - Cognitive impairment
  - Mood & anxiety symptoms

(ii). Diagnosis:

- Acute Schizophrenia:
  - First-Rank Symptoms of Acute Schizophrenia (mnemonic: ABCD):
    - A → Auditory Hallucinations (2nd & 3rd person hallucinations)
    - B → Broadcasting of Thoughts:
      - Thought Insertion → alien thoughts are being inserted into one's mind.
      - Thought Withdrawal → thoughts are being "stolen" from one's mind.
      - Thought Broadcasting → thoughts are being broadcasted to others.
  - C → Controlled feelings, impulses, or acts.
  - D → Bizarre Delusions.
- Chronic Schizophrenia:
  - Blunted (flattened) affect.
  - Avolition → apathy & loss of drive
  - Autism → social isolation & withdrawal
  - Alogia → poverty of speech
  - Poor self-care
  - Catatonia → adopting awkward postures for prolonged periods.

(iii). Treatment:

- First episode of acute attack requires hospital admission.
- Subsequent acute relapses & chronic schizophrenia are treated on outpatient basis.
- Treatment → Anti-psychotic Medications:
  - These agents block D2 dopamine receptors in the brain.
  - These agents take about 2 – 4 weeks to act.
  - Types:
    - 1st Generation = Chlorpromazine, Haloperidol
    - 2nd Generation = Olanzapine, Clozapine, Risperidone



🩺 1️⃣ Introduction (OSCE Opening)

- Introduce yourself
- Ensure privacy
- Build rapport
- Ask open-ended question:

> "Can you tell me what has been bothering you?"

📌 2️⃣ Presenting Complaints

Ask:

- What symptoms?
- Since when?
- How often?
- How severe?

🧠 3️⃣ Explore Obsessions

Obsessions = intrusive, unwanted thoughts, urges, or images.

Ask:

- Do you get repeated thoughts that you can't control?
- Are these thoughts distressing?
- Do you try to resist them?
- Do you recognize they are your own thoughts?

Common themes:

- Contamination (germs)
- Doubt (did I lock the door?)
- Harm (fear of hurting someone)
- Religious/sexual intrusive thoughts
- Symmetry/order

🔁 4️⃣ Explore Compulsions

Compulsions = repetitive behaviors done to reduce anxiety.

Ask:

- Do you feel forced to do certain actions repeatedly?
- What happens if you don't do them?
- How much time do they take daily?

Common compulsions:

- Excessive hand washing
- Checking locks/stoves
- Counting
- Arranging items symmetrically

👉 Important:

> Are these behaviors reducing anxiety temporarily?

⏳ 5️⃣ Time & Functional Impairment

- How many hours per day?
- Affecting studies/work?
- Affecting relationships?
- Avoiding situations?

(OCD is significant if >1 hour/day or causing impairment)

😟 6️⃣ Insight

Ask:

- Do you think these thoughts are reasonable?
- Do you believe they are excessive?

(OCD usually has good or fair insight)

🚨 7️⃣ Risk Assessment

- Suicidal thoughts?
- Self-harm?
- Severe depression?
- Any aggressive urges?

OCD commonly coexists with:

- Major depressive disorder
- Generalized anxiety disorder

🧩 8️⃣ Rule Out Differentials

Ask about:

- Psychosis → Are the thoughts imposed by someone? (delusions)
- Tics → repetitive movements?
- Substance use?
- Medical causes?

👨‍👩‍👧 9️⃣ Past & Family History

- Previous psychiatric illness?
- Family history of OCD/anxiety?
- Past treatment (SSRIs, CBT)?

👨‍👩‍👧 9️⃣ Past & Family History

- Previous psychiatric illness?
- Family history of OCD/anxiety?
- Past treatment (SSRIs, CBT)?

💊 🔟 Drug History

- Antidepressants?
- Steroids?
- Substance use?

🧠 Mini Mental State Exam (brief)

Assess:

- Orientation
- Insight
- Mood
- Thought content

🧍 1️⃣1️⃣ Personal & Social History

- Education/work
- Relationships
- Stressors
- Childhood personality (perfectionism?)

Station 6:→ Young Married female presented to opd with complaints of pain on RIF. Tachycardia & hypotension. What are three differentials. What is your most specific dif How will you manage this patient?.

Differentials: ① Ruptured Ectopic Pregnancy
② Acute appendicitus with Perforation.
③ Ovarian Torsion.

Most-Specific Differentials:→ "Ruptured Ectopic Pregnancy".

Management: Most-urgent Life threatning Emergency

DATE: DAY:

① ABCDE Approach. ③ urgent Investigations.
②→ Pregnancy Test (β-HCG), TVUS, CBC, coagulation Profile | Renal function Test.
③ Emergency surgical Intervention.
Immediate laproscopy || laprotomy.

unstable → Emergency laprotomy

Stable → laproscopic salpingectomy | salpingostomy.

+ control of Bleeding → By Removal of Ruptured tube.

Mastectomy

📌 2️⃣ Explain the Diagnosis (Simple Language)

> "Your biopsy shows breast cancer. The recommended treatment in your case is removal of the breast to completely remove the disease."

Avoid medical jargon.

✂️ 3️⃣ Explain the Procedure

Types:

- Simple (total) mastectomy
- Modified radical mastectomy (breast + lymph nodes)
- Skin-sparing mastectomy

Explain:

- Surgery under general anesthesia
- Duration ~2–3 hours
- Hospital stay 2–5 days
- Drain will be placed temporarily

⚠️ 4️⃣ Risks & Complications

Immediate:

- Bleeding
- Infection
- Pain
- Seroma

Long-term:

- Lymphedema (arm swelling)
- Numbness
- Shoulder stiffness
- Scar formation

💊 5️⃣ Need for Additional Treatment

Explain possibility of:

- Chemotherapy
- Radiotherapy
- Hormonal therapy (e.g., tamoxifen)

Depending on staging.

Ulnar Nerve Damage

1. Causes of Ulnar Nerve Damage

A. Trauma / Compression

- Fracture of medial epicondyle of humerus (elbow)
- Elbow dislocation
- Prolonged pressure over elbow (leaning on hard surfaces)
- Repetitive strain (cubital tunnel syndrome)
- Compression at wrist (Guyon's canal, e.g., cyclists)

B. Iatrogenic / Surgical

- Post-surgical injury (elbow, wrist, or hand surgery)
- IV line / catheter placement injury

C. Systemic / Neuropathic

- Diabetes mellitus (peripheral neuropathy)
- Rheumatoid arthritis (joint deformity compressing nerve)
- Tumors (ganglion cysts at wrist, elbow mass)

D. Idiopathic

- Rare spontaneous neuropathy

---

2. Clinical Picture

A. Motor Symptoms

- Weakness of hand and forearm muscles supplied by ulnar nerve:
  - **Flexor carpi ulnaris** → weak wrist flexion & ulnar deviation
  - **Flexor digitorum profundus (4th & 5th fingers)** → weak finger flexion
  - **Intrinsic hand muscles** → weakness of finger abduction/adduction, thumb adduction
- **Claw hand deformity** (MCP hyperextension, IP flexion of 4th & 5th fingers)
- Difficulty performing fine motor tasks (typing, writing, buttoning)

B. Sensory Symptoms

- Numbness, tingling, or burning in:
  - Medial 1½ fingers (little finger + ulnar half of ring finger)
  - Palmar and dorsal hand

C. Special Signs

- **Froment's sign** – thumb IP flexion when pinching paper
- **Wartenberg's sign** – 5th finger abducted at rest
- Muscle wasting: hypothenar eminence, interossei, adductor pollicis

D. Site-Specific Differences

Site	Motor	Sensory
Elbow (cubital tunnel)	FCU + FDP + hand muscles	Medial 1½ fingers
Wrist (Guyon's canal)	Hand muscles only	Variable

Ulnar Nerve Damage

3. Investigations

- **Nerve conduction study / EMG** → confirms lesion site & severity
- **X-ray** → if fracture, dislocation, or bony abnormality suspected
- **MRI / Ultrasound** → for masses, compression, or entrapment
- **Blood tests** → if systemic cause suspected (e.g., diabetes, rheumatoid arthritis)

4. Management

A. Conservative

- Avoid prolonged elbow flexion / pressure
- Night splinting (elbow extension)
- Physiotherapy & occupational therapy to maintain range of motion and hand strength
- NSAIDs for pain / inflammation

B. Surgical

- Indicated for severe, progressive, or non-responsive cases:
  - **Nerve decompression** (cubital tunnel release, Guyon's canal release)
  - **Nerve repair / grafting** (traumatic lacerations)
  - **Tendon transfers** for chronic deformity (claw hand)

C. Rehabilitation

- Hand exercises
- Splints for claw correction
- Occupational therapy for functional restoration

Station 15 History of fever, weight loss, night sweats, takes unpasturized Milk →
Diagnosis:

Diagnosis: Brucellosis → caused by Brucella species, transmitted through ingestion of contaminated dairy products.
Investigations:→ (1) Standered Agglutination Test. (2) ~~Elisa Test~~ (3) Rose Bangal Stest (4) Blood & Bone Marrow culture (5). PCR (6) CBC., ESR & CRP.

Brucellosis is a zoonotic infection caused by Brucella species

5. Management

A. Antibiotic Therapy (WHO recommended)

- **First-line**: Combination therapy for **≥6 weeks**
  - **Doxycycline 100 mg PO BID** for 6 weeks **plus**
  - **Rifampicin 600–900 mg PO daily** for 6 weeks
- **Alternative for complicated cases / relapse prevention**:
  - Add **Streptomycin 1 g IM daily for 2–3 weeks** (especially in spondylitis or relapse)
  - Or **Gentamicin 5 mg/kg/day IM for 7–10 days**

B. Supportive Care

- Analgesics for arthralgia / myalgia
- Monitor LFTs during therapy

C. Complications Management

- Osteoarticular: longer course or combination therapy
- Endocarditis: surgical intervention + prolonged antibiotics
- Neurobrucellosis: doxycycline + rifampicin + ceftriaxone

D. Prevention

- Avoid unpasteurized milk
- Protective measures in occupational exposure

Station 17 :→ Name 2 ligaments prone to injury during splenectomy? complications 3 vaccinations done prior to splenectomy?.

2 - ligaments injured during splenectomy

⇒ (1) Splenorenal ligament
(2) Gastrosplenic ligament.

Complications → (1) Hemorrage
(2) Pancreatic injury
(3) subphrenic abces.
(4) Portal vein Thrombosis
(5) Post splenectomy infections.

Vaccinations Prior:

(1) Pneumococcal vaccine
(2) Meningococcal vaccine
(3) H - influenza Type B.

DATE: DAY:

Station No 16

Palmer Erythema Pic

D/D: ① Cirrhosis; CLD
② RA, lupus, Dermatomyositis, Hyperthyroidism, D.M

↓

D/D: liver cirrhosis / CLD → ↑ estrogen
→ Pregnancy
→ Rheumatoid arthritus.

3 cases:

2. Lab findings: → LFTs (AST, ALT, ALP & bilirub
→ RF & Anti-CCP.

5 year old with generalized tonic clonic seizures

5 years – common causes include
febrile seizures
idiopathic epilepsy
CNS infections
metabolic disorders

3. Investigations

A. Basic / Initial

- **Blood glucose** → rule out hypoglycemia
- **Electrolytes** → sodium, calcium, magnesium
- **CBC** → if infection suspected
- **Renal & liver function** → before starting certain AEDs

B. Imaging

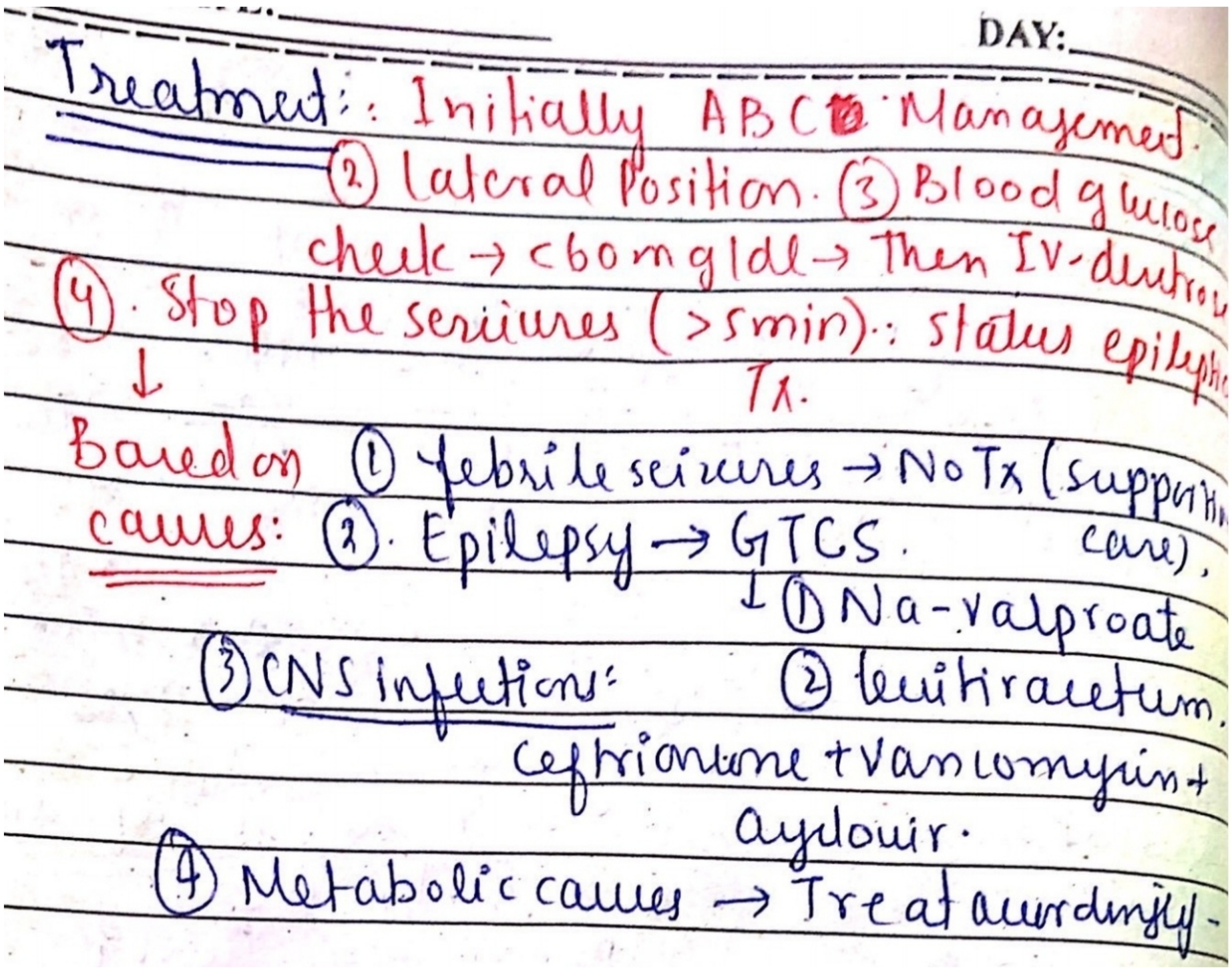
- **MRI brain** → if focal neurological signs, abnormal development, or persistent seizures
- **CT brain** → if acute trauma or suspected hemorrhage

C. EEG

- Helps classify seizure type and guide therapy
- Interictal EEG may show **generalized spike-and-wave** in idiopathic generalized epilepsy

D. Infection Screen

- **Lumbar puncture** if meningitis/encephalitis suspected



IMNCI DIARRHEA CLASSIFICATION

Two of the following signs: • Lethargic or unconscious • Sunken eyes • Not able to drink or drinking poorly • Skin pinch goes back very slowly	**SEVERE DEHYDRATION**
Two of the following signs: • Restless, irritable • Sunken eyes • Drinks eagerly, thirsty • Skin pinch goes back slowly.	**SOME DEHYDRATION**
• Not enough signs to classify as some or severe dehydration	**NO DEHYDRATION**

Bared on Duration:

Acute diarrhea : lasts < 14 days.
Persistant Diarrhea : lasts ≥ 14 days.
Dysentry : Bloody diarrhea → Shigella.

Hydatid Cysts

1. Causative Organisms

Type	Organism (Echinococcus species)	Notes
Cystic echinococcosis	*Echinococcus granulosus*	Most common; sheep-dog cycle
Alveolar echinococcosis	*Echinococcus multilocularis*	More aggressive; fox/wild canid cycle
Polycystic / rare forms	*E. vogeli*, *E. oligarthrus*	Rare, mainly in Latin America

2. Types of Hydatid Cysts

1. **Unilocular cysts** – simple, fluid-filled (classic cystic echinococcosis)
2. **Multivesicular / daughter cysts** – multiple internal compartments
3. **Calcified cysts** – dead/older cysts, may be incidental
4. **Alveolar cysts** – infiltrative, mimic malignancy (alveolar echinococcosis)

4. Clinical Features

- Often **asymptomatic** until cyst grows
- **Liver cysts**: right upper quadrant pain, hepatomegaly, jaundice (if biliary compression)
- **Lung cysts**: cough, chest pain, hemoptysis, dyspnea
- **Rupture**: can cause **allergic reaction or anaphylaxis**
- **Secondary infection**: abscess formation

5. Investigations

1. Imaging
   - **Ultrasound** – first-line for liver
   - **CT / MRI** – better for lungs, brain, bones, complex cysts
   - Look for **cyst wall, daughter cysts, calcification**
2. Serology
   - ELISA, indirect hemagglutination → supportive, not always definitive
3. Other tests
   - CBC may show eosinophilia
   - Liver function tests if hepatic involvement

3. Common Sites of Cyst Formation

Organ	Frequency / Notes
Liver	50–70% (right lobe more common)
Lung	20–30% (children more affected)
Spleen	5–8%
Kidney	2–4%
Brain	<2%, rare
Bones / muscles / heart	Rare

6. Management

A. Medical

- **Albendazole** 10–15 mg/kg/day in cycles (pre- and post-surgery or for inoperable cases)
- **Mebendazole** alternative

B. Surgical / Interventional

1. **Surgical excision**
    - Indicated for large, symptomatic, or complicated cysts
    - Care to avoid **spillage → anaphylaxis / recurrence**
2. **PAIR procedure** – Puncture, Aspiration, Injection of scolicidal agent, Re-aspiration
    - Minimally invasive, for selected liver cysts
3. **Post-operative albendazole** – reduces recurrence risk

C. Supportive / Complication Management

- Treat secondary infection with antibiotics
- Emergency care for cyst rupture / anaphylaxis

D. Follow-up

- Serial imaging and serology for **recurrence**

Station 17 → 40 yr old → U/C since longtime now has developed pranites & jaundice. His LFTs → abnormal → Diagnosis, Invs, Mx:

Diagnosis: Primary sclerosing Cholangitus

Invs: ① LFTs (ALP↑, GGTT↑, Billirubin↑, ↑AST/ALT Mild
② p-ANCA (+ → 80%), ASMA, (AMA → − → Rule out PS
③ MRCP → Goldstandered.
④ ERCP → if MRCP +ve.
⑤ U/S Abdomen.
⑥ Liver Biopsy (onion skin fibrosis).

Management: → surgical
↓ Pharmacological

① Ursodeoxychalic acid
② Cholestyramine
③ Vit (ADEK)
④ Regular colonoscopy.

surgical
↓
① ERCP with stent
② Liver Transplant.

Station 2

Patient epigastric pain, projectile vomiting containing no bile after eating, containing food contents, Succession splash (+), → Dx, causes, Metabolic Abnormality Associated Investigations? ↓

Gastric outlet obstruction

Causes :→ ① PUD ② Hypertrophic Pyloric stenosis ③ corrosive ingestion ④ Pancreatic Ca.

Metabolic Abnormality Associated :→ Hypochloremic, Hypokalemic Metabolic Alkalosis.

Invs: CBC, ABGs, Electrolytes, U/Creat. AXR, UGIE (G.S) ✓, US → <6mnth age. Barrium Meal.

Tx: ① Initial Resuscitation, NG Decompression.
② D.Tx: PPIs, surgical interventions if needed.

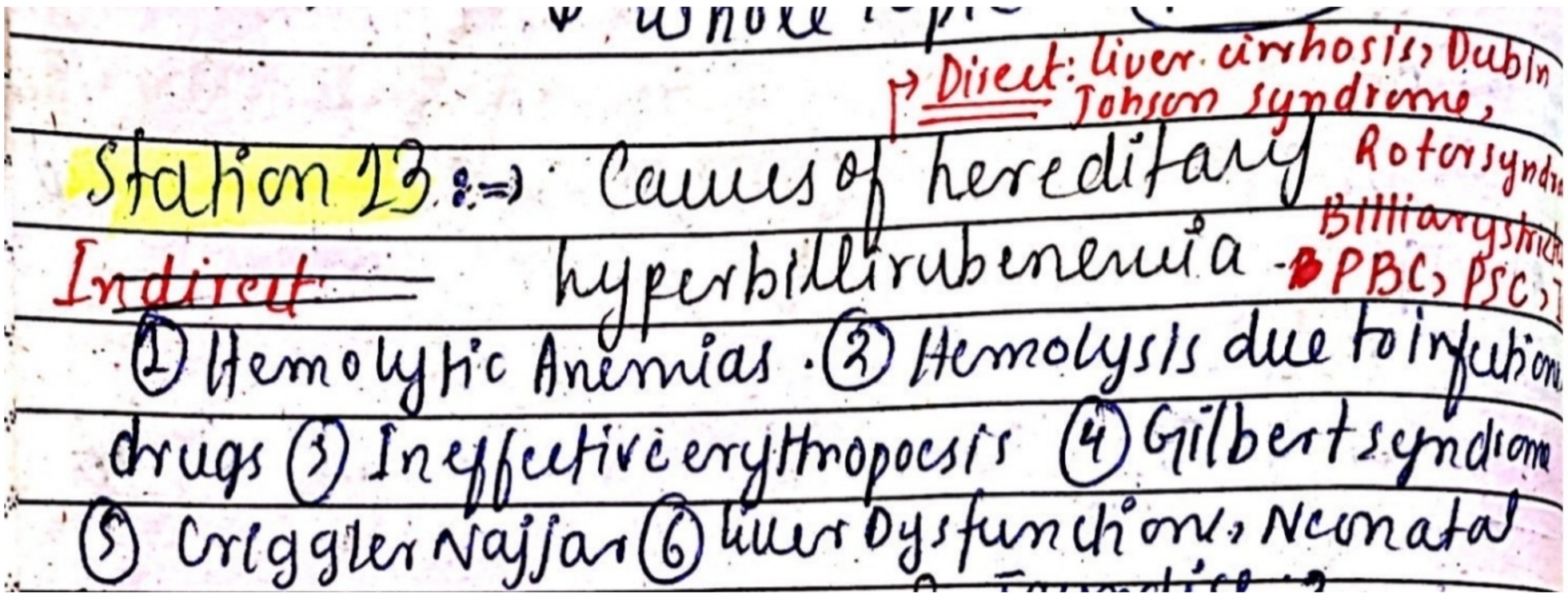
DATE: DAY:

Station 3 35 yrs old woman → H/O of vision loss & presents with difficulty walking, ↑ tone in lower limbs with exaggerated Reflexes.

Diagnosis: Multiple Sclerosis.

Investigations:
- MRI spine & brain (Gold.
- Lumber Puncture Standard
- VEP
- Blood culture (Rule out other causes).

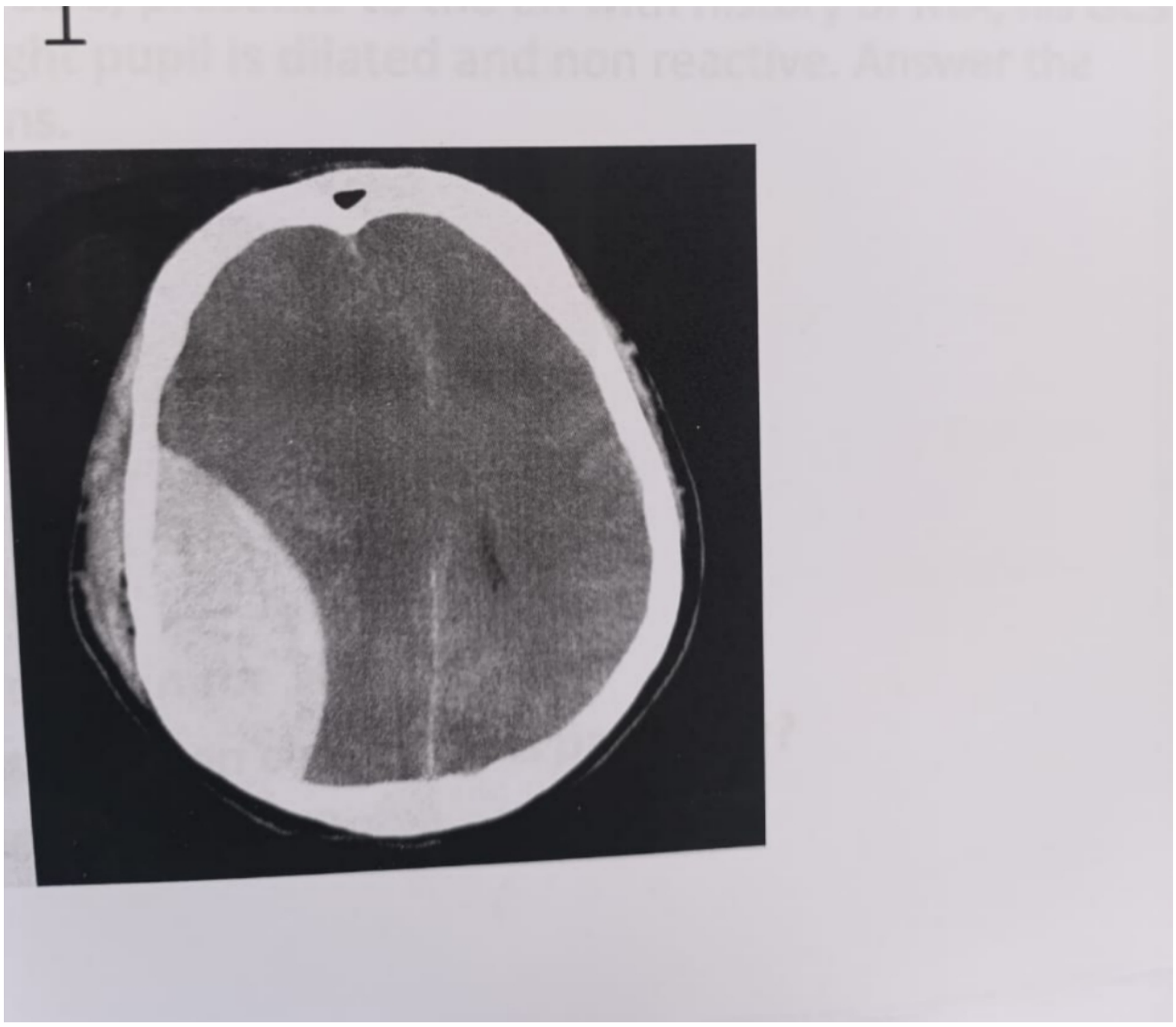
2- Drugs :-
1. IV. Methylprednisolone
2. Natalizumab / fungolimad.


Station 13 :=> Causes of hereditary hyperbillirubenemia

Direct: liver cirrhosis, Dublin Johnson syndrome, Rotor syndr... Billiary stric... PBC, PSC, ...

Indirect

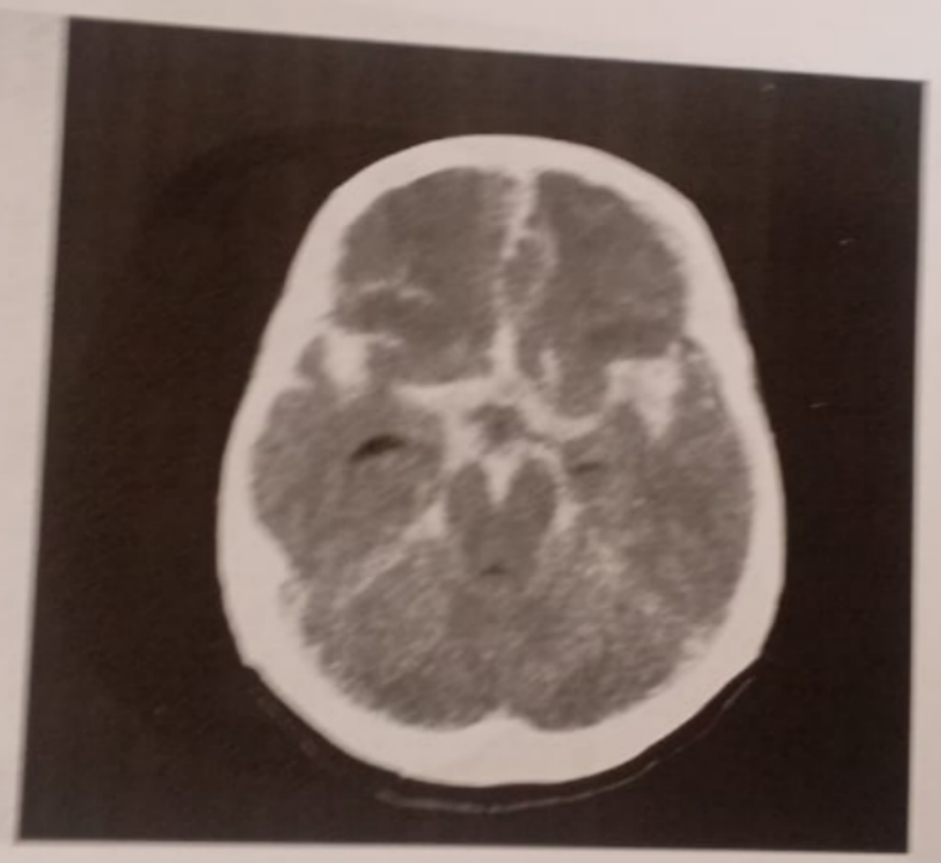
① Hemolytic Anemias ② Hemolysis due to infusion... drugs ③ Ineffective erythropoesis ④ Gilbert syndrom... ⑤ Crigglar Najjar ⑥ liver dysfunction, Neonatal ...



Questions / Answers

- What Imaging is this? CT Scan // CT Scan Brain
- What are the findings in the Image? // An extradural Hematoma / A hyperdense lesion above dura
- What is the most common cause of this pathology? // Fracture of bone / Rupture of Middle meningeal artery
- How is this pathology treated? / / Surgery / right sided craniotomy

Station 3



- A 34year old accountant with known history of hypertension presents to the ER with history of Loss of consciousness after a severe thunder clap headache, he was unconscious for 30 minutes and awoke, but then lost consciousness again and is now in semi comatose state, on examination his GCS is 9/15, and pin point pupils and shallow breathing.

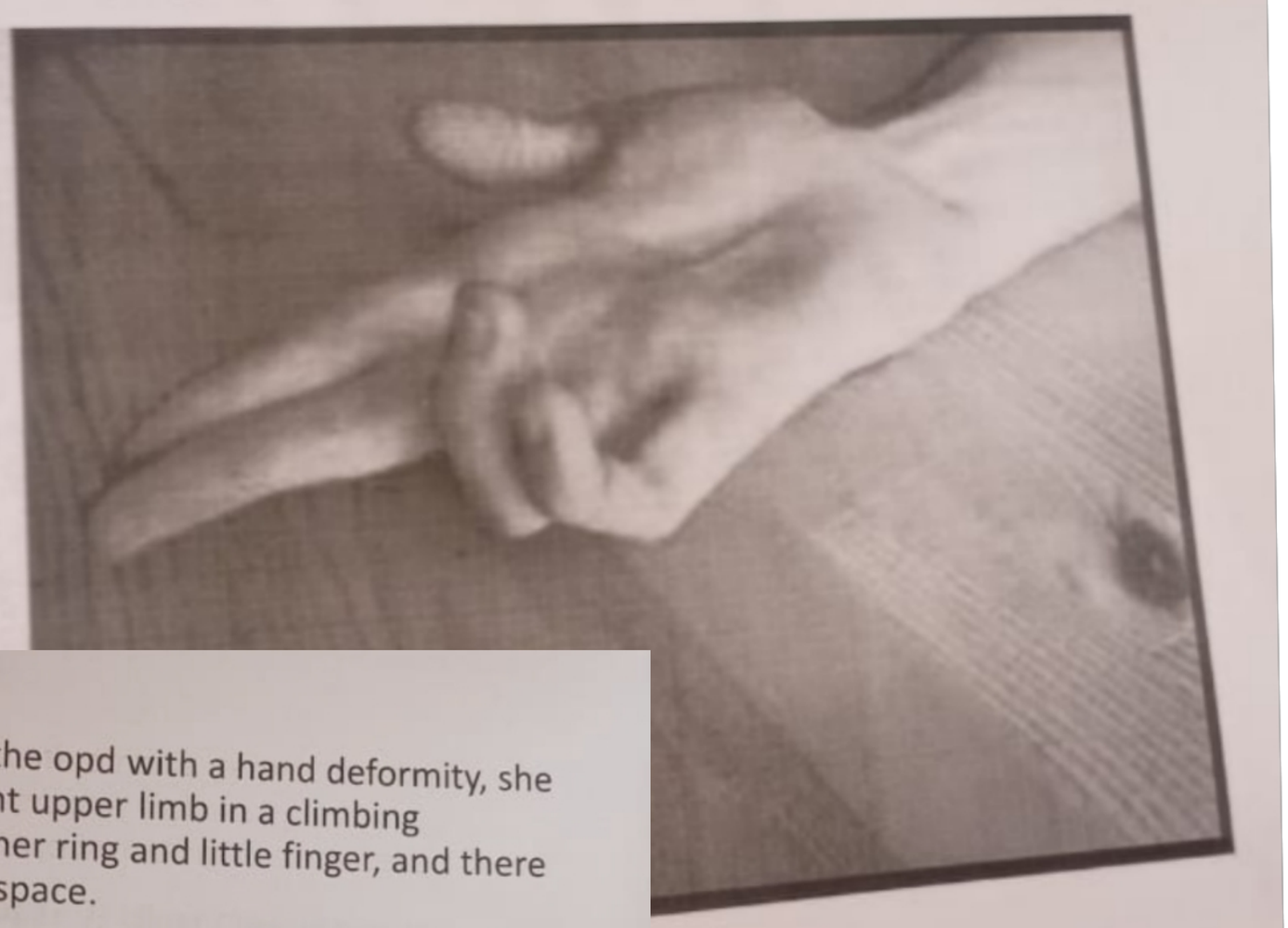
Questions

- What is the pathology seen in the Image?
- what anatomical spaces this pathology occupies? Name two .
- What is the most common cause of this pathology?
- How is this pathology treated?

Questions / Answers

- What is the pathology seen in the Image? // Subarachnoid hemorrhage
- what anatomical spaces this pathology occupies? Name two . // Subarachnoid space OR Fissures and cisterns
- What is the most common cause of this pathology? // Most common cause is rupture of aneurysms // Trauma / traumatic vessel rupture in subarachnoid space
- How is this pathology treated? // Clipping Coiling / Surgery / ICU care

Station 4



- A 22 year old female presented to the opd with a hand deformity, she gives a history of trauma to her right upper limb in a climbing accident. She has a sensory loss in her ring and little finger, and there is wasting of the of the dorsal web space.

Questions

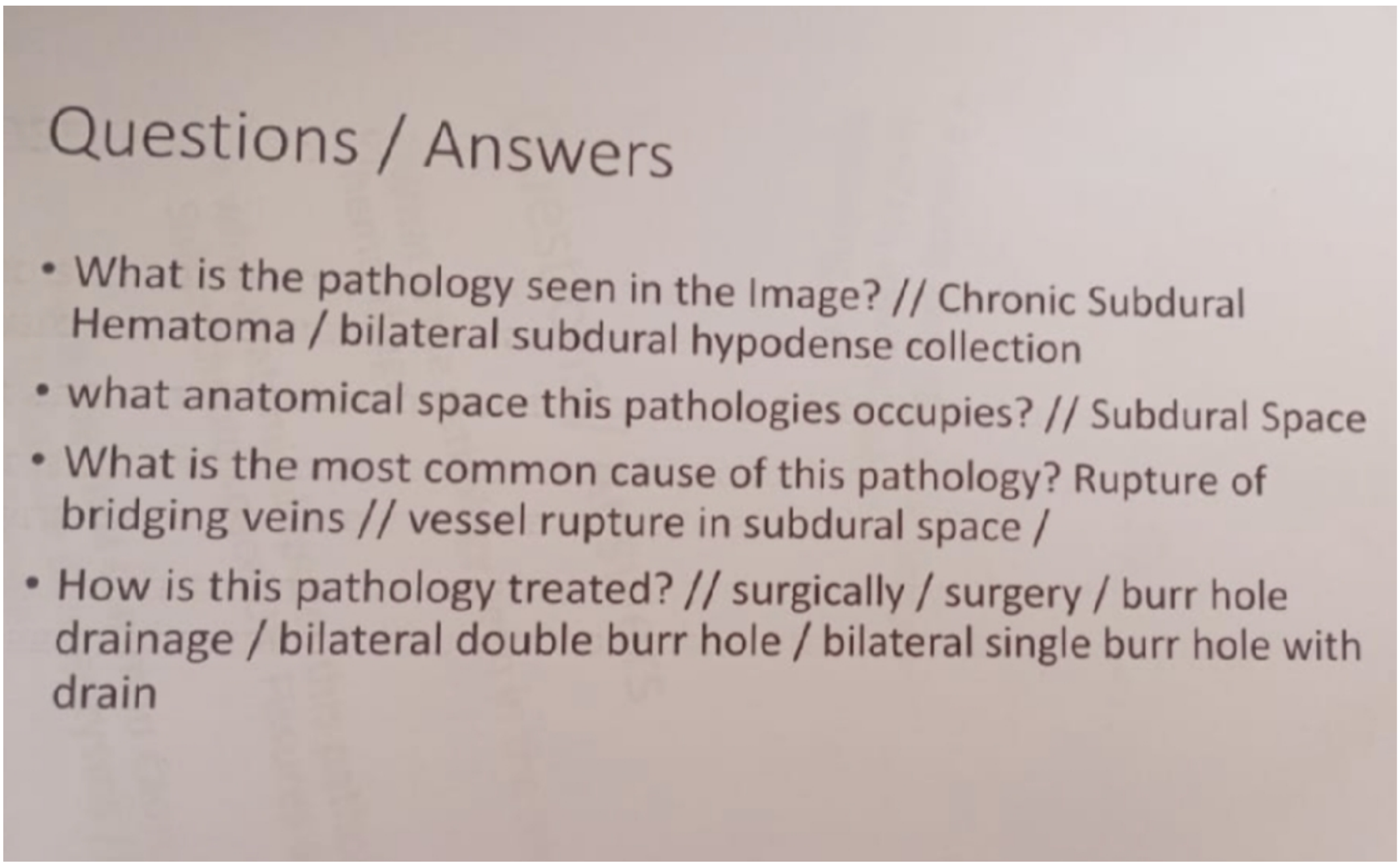
- What is the pathology seen in the Image?
- What is the cause of this deformity?
- At which anatomic level this pathology happen to occur most commonly?
- Which clinical / examination / diagnostic test is done to confirm this pathology?
- What are the treatment options for this pathology?

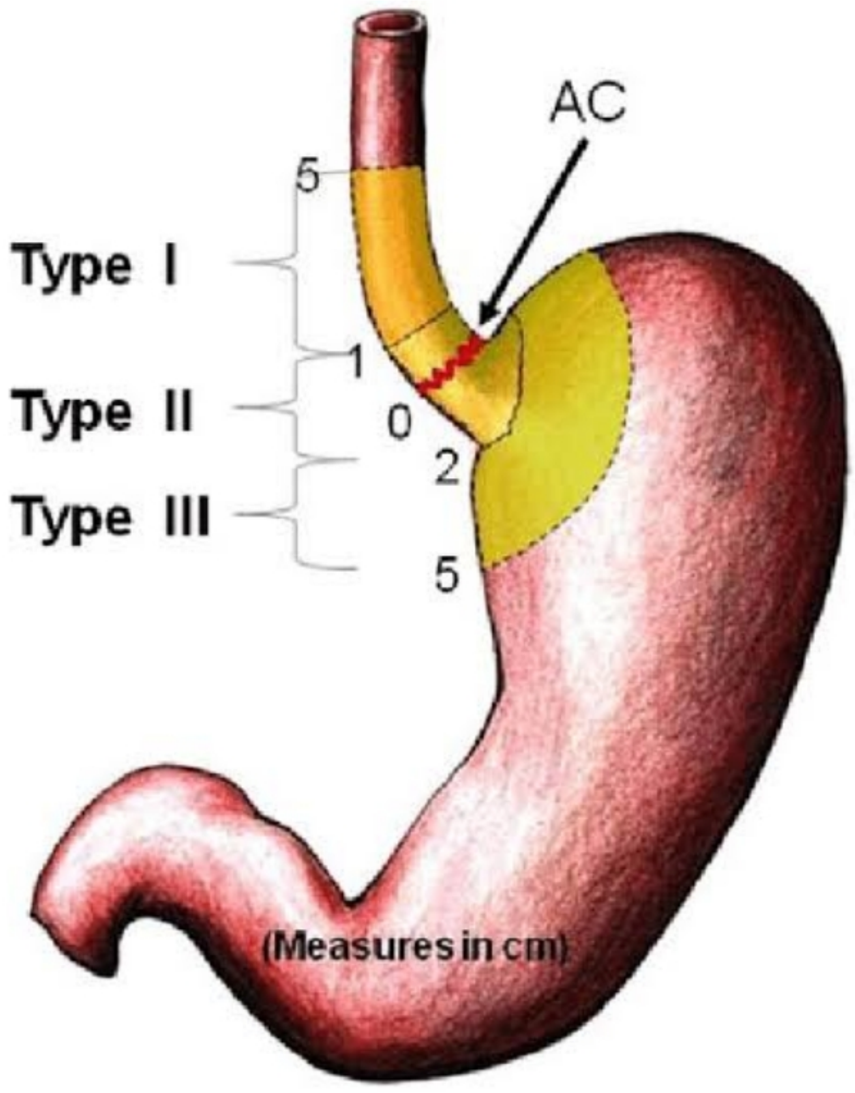
Questions / Answers

- What is the pathology seen in the Image? // Ulnar Claw // Peripheral nerve injury / hyperextension at MCP joint and flexion at PIP and DIP joints of the 4^{th} and 5^{th} fingers.
- What is the cause of this deformity? Ulnar Nerve Injury / Elbow fracture / wrist fracture / fracture of the distal radius and ulna
- At which anatomic level this pathology happen to occur most commonly? // Wrist / Elbow / distal radius ,ulna
- Which clinical / examination / diagnostic test is done to confirm this pathology? // NCS-EMG / Froment's Test /
- What are the treatment options for this pathology? // Surgery /Nerve Repair /

Glasgow Coma Scale (GCS)

Response	Criterion	Score
Eye-opening response (E)	Eye-opening spontaneously	4 points
	Eye-opening to sound	3 points
	Eye-opening to pain	2 points
	No response	1 point
Verbal response (V)	Orientated	5 points
	Confused	4 points
	Inappropriate words	3 points
	Incomprehensible sounds	2 points
	No response	1 point
Motor response (M)	Obeys command	6 points
	Localises to pain	5 points
	Withdraws to pain	4 points
	Abnormal flexion to pain (decorticate)	3 points
	Abnormal extension to pain (decerebrate)	2 points
	No response	1 point


Questions / Answers
• What is the pathology seen in the Image? // Chronic Subdural Hematoma / bilateral subdural hypodense collection
• what anatomical space this pathologies occupies? // Subdural Space
• What is the most common cause of this pathology? Rupture of bridging veins // vessel rupture in subdural space /
• How is this pathology treated? // surgically / surgery / burr hole drainage / bilateral double burr hole / bilateral single burr hole with drain



Adenocarcinoma of lower esophagus

Treatment

Grades of Esophageal carcimoma

Brain Abscess

CT findings - Ring enhancing lesion

Causes: