

**BLOCK I OSPE POINTS
BY FATIMA HAIDER
K GMC**

Prescriptions

* Stable Angina

A C I N B R R
75 75 20 0.5 5 5 10

- Aspirin
- Clopidogrel
- Isosorbide mononitrate
- Nitroglycerin
- Bisoprolol
- Ramipril
- Rusuvastatin

* Unstable Angina

Enoxaparin

E A C I N B R R
60 75 75 20 0.5 5 5 10

* MI

A C G B A R
300 300 0.5 2.5 40 2.5
75 75

- Streptokinase
- Aspirin
- Clopidogrel
- Glycerine trinitrate
- Bisoprolol
- Atorvastatin
- Ramipril

* HTN

Lisinopril 5mg

* HTN for Diabetes

HAL
125 2.5 25

Hydrochlorothiazide 12.5
Amlodipine 2.5
Losartan Potassium 25

* HTN in Pregnancy

Methyldopa 500mg 1x/1x/1x/

* Pulmonary TB → P E R I B6
Isoniazid 400 275 ~~400~~ 150 75
Rifampicin
Pyrazinamide
Ethambutol

* Asthma
S I B

Salbutamol
Ipratropium bromide
Beclomethasone

* CCF

BAARF

B A A R F S
2.5 10 75 2.5 40 50

Bisoprolol
Atorvastatin
Aspirin
Ranipril
Furosemide + Spironolactone

History Of Anemia

	Questions to address
HPI	Onset (date,age) and duration of symptoms, symptoms of hemolysis or blood loss, fever or weight loss, co-existing disease
Past Medical History	Previous anemia, renal disease, infections, ileal surgery
Family History	Anemia in the family, jaundice, gallstones
OB-Gyne History	Menarche, Menstrual Cycle (Duration, # of pads used), # of pregnancies/ abortions (bleeding)
Personal History	Diet, Occupation, Medications, Recent travel
Others	Gender, race/ethnicity

CAUSES OF IRON DEFICIENCY

Intestinal blood loss

- Gastric/duodenal ulcers
- Angiodysplasia/angioectasia
- Benign and malignant tumours in the gastrointestinal tract
- Cameron erosions associated with large hiatus hernias
- Haemorrhoidal bleeding
- Inflammatory bowel disease
- Hookworm infestation
- Gastric antral vascular ectasia (GAVE, also known as watermelon stomach)
- Portal hypertensive gastropathy associated with cirrhosis or noncirrhotic portal hypertension
- NSAID use and associated enteropathy

Dietary insufficiency

- Vegetarian and vegan diets
- Poor intake of red meat
- Vitamin C deficiency (scurvy)

Malabsorption

- Coeliac disease
- Whipple's disease
- Tropical sprue
- Atrophic gastritis (including pernicious anaemia)
- Small intestinal bowel overgrowth
- Immunodeficiency disorders
- Gastric surgery, including gastric bypass and small bowel resection

Extraintestinal blood loss

- Menorrhagia
- Haemoptysis/epistaxis
- Renal tract bleeding

Increased metabolic requirements

- Pregnancy
- Lactation

PEDIATRIC HISTORY

1-SOURCE OF HISTORY

2-PERSONAL DATA: -Name -Age -Sex -Nationality -Date of admission (OPD - ER)
-Any known illness (Duration + Medication)

3-MAIN COMPLAINT + DURATION

4-HISTORY OF PRESENTING ILLNESS (HPI): (check the note)

- Complaint analysis
- Associated symptoms
- Previous episodes
- Review of related system
- Risk factors
- Special questions related to the differential diagnosis / Important negatives
- History of any chronic disease (check the note)

5-HOSPITAL COURSE:

- What happened since admissions: Improving - Worsening
- Investigations done + Findings
- Medications given
- New diagnosis
- New complaints
- Plan (or reason for hospital stay)

6-SYSTEMIC REVIEW: (Symptoms in light blue are for older children)

- General: Weak crying - Wight loss - Poor feeding - Irritability - Fever - Pallor - Lethargy
 - CVS: Dyspnoea (Breathless & sweaty on feeding - Slow to feed)
Blue episodes - Dizzy spells - Fainting - Palpitation - Chest pain
 - Respiratory: Sore throat - Ear ache - Cough (dry or Productive) - Haemoptysis - Wheeze
Dyspnoea - Frequent chest infections - Stridor (Noisy breathing)
 - GIT: Appetite - Weight loss - Nausea - Vomiting - Haematemesis - Abdominal pain
Dysphagia - Jaundice - Diarrhea - Constipation - Blood/Mucus in stool - Pruritis ani
Travel aboard - Animals contact - change in stool color - Recent fast food intake
 - Genitaurinary: Enuresis (dry during daytime?) - Nocturia - Dysuria (Crying during micturation)
Haematuria - Abnormal genitalia - Urine color change - Age of menarche (female)
 - CNS: Dizziness - Nervousness - Fits (Convulsion), Faints or Funny turns
Drowsiness - Weakness, Clumsiness or Frequent falls - Abnormal movements
Vision, Hearing, Taste & Smell problems - Incontinence - Tingling
Numbness or Unpleasant sensation - Headache
 - Rheumatology: Limping - Bone pain - Joint (pain - Swelling - Redness) - Muscle pain
 - Hematology: Epistaxis - Easy bruising - Circumcision bleeding - Petichae or Echemosis
Gum bleeding
 - Dermatology: Rash - Itching - Pigmentation - Lump - Hair or Nail changes
 - Endocrine: Polyuria - Polydypsia - Polyphagia
- 7-PAST HISTORY: -Medical -Surgical
-Hospital Admissions -Blood transfusion

8-ALLERGIES

9-PERINATAL HISTORY: -Antenatal: Pregnancy (Complications - Drugs - Radiation) - Gestation
-Natal: Mode of delivery - Birth weight
-Post natal: Diseases (e.g. Jaundice) - Admission to special care
Ventilation - Discharged (With mom / Stayed .Why?)

10-NUTRITIONAL HISTORY:

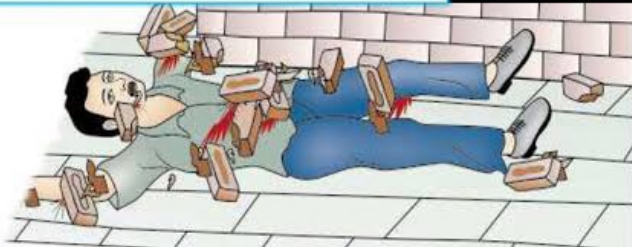
- Bottle or breast fed ... for how long?
- Timing of introduction of solids or cereals
- Current Dietary intake (Any dietary restriction?)
- Bottle fed (Type - Preparation - Volume - Duration - Frequency - Total daily intake)

Traumatic asphyxia

It is the mechanical anoxic death due to mechanical pressure by a heavy object on the chest with or without abdominal compression leading to prevention of respiratory movements.

Postmortem findings:

- Severe congestion and cyanosis above the level of compression frequently with a sharp line of demarcation.
- prominent Petechial hemorrhages
- There may be associated sternal, or spinal, fractures and interstitial emphysema.



Paltauf Hemorrhage



Rupture of the alveolar walls due to increased pressure during forced expiration and produces hemorrhages which when present sub-pleurally are called Paltauf's hemorrhages. These hemorrhages are shining, pale bluish red and usually present in lower lobes of lungs specifically found in drowning cases.

DROWNING

- **Signs of drowning:** Fine copious frothy discharge from mouth & nose, Diatoms in bone marrow, Goose skin/ cutis anserina, Paultaf's haemorrhage
 - **MC type of drowning:** Accidental
 - **Emphysema aquosum signifies:** Wet drowning
 - **Edema aquosum is seen in drowning of unconscious**
 - **Diatoms:** Unicellular algae, suspended in water, Their presence in bone marrow & brain signifies drowning

#120

5- Emphysema aquosum and heavy lungs:

Hyper-expanded and water-logged lungs . Ribs imprints may be present on the surface of lungs

6- Sub-pleural haemorrhages (Paultauf spots) :

In 5-60% of drownings reflecting intra-alveolar haemorrhages



Figure 16.6 Emphysema aquosum following drowning. The lungs are hyperinflated, crossing the midline and obscuring the pericardial sac. There are subpleural haemorrhages in the right lung middle lobe (Paultauf's spots).

Source; Simpson forensic medicine 13th edition



ASPHYXIA

- ★ It is a condition that if oxygen supply to the blood and tissues is reduced because of interference with respiration, it is also called **Anoxia\Anoxaemia\Hypoxia.**

Edema aquosum: This condition develops when a person is passively submerged without significant effort to breathe underwater or when the person is unconscious. This is a state of flooding the lungs with water without forming a foam column

Types of hyoid bone fractures

Outward /Anteroposterior compression

- Force – inward
- Eg : hanging /ligature strangulation
- Hyoid forced backwards
- Fixed on to the vertebrae
- ↑ divergence of the greater horns
- Periosteum – torn on inner side



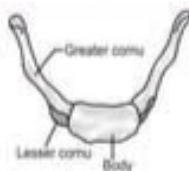
- DD: RTA runover (multiple #)
- blows on the front ~ other signs

Inward /lateral compression fractures

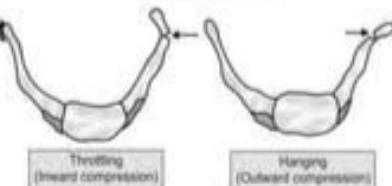
- Force- inward
- Eg: throttling
- Fingers of the grasping hands → squeeze the greater horns → posterior fragment – displaced inwards
- U/I or B/L
- Periosteum ~ torn → outer side
- Fragment can be seen lying medially



- (3) **Avulsion Fractures:** Also called "tug" or "traction" fractures.
- They occur due to muscular overactivity without there being direct injury to the hyoid bone.



Parts of hyoid bone



Types of Neck Dissections

Radical, Modified, Extended and Selective



	Lymph Nodes	Structures
Radical	Levels I-V	Sternocleidomastoid Internal Jugular Vein Spinal Accessory Nerve
Modified Radical	Levels I-V (with 3 variations)	1: SAN spared 2: SAN & IJV or SCM spared 3: SAN & IJV & SCM spared
Extended Radical	Levels I-V + extended Example: Level VII	SCM, IJV, SAN + extended Example: Carotid Artery
Selective (based on drainage pattern)	Supraomohyoid: I-III Anterolateral: I-IV Anterior: II-IV Posterior: II-V Central: VI	-

Neck dissections can be described in relation to the amount and location of nodes removed or the secondary structures removed or preserved.

TRACHEAL TUG- Signs hiccup

- › This is downward movement of trachea during deep inspiration.
- › It is seen in:-
- › Deep anaesthesia (by inhalation agents).
- › Partially curarized patient.
- › Upper airway obstruction (this is the main reason of tracheal tug at the end of anaesthesia as airway is obstructed by secretions).



AUTOPSY FINDINGS OF LIGATURE STRANGULATION:

- Classical and non-specific signs of asphyxia are prominent.
- Tongue is often protruded.
- Bleeding from the ears or the nose maybe seen.
- The ligature mark is seen as a depression around the neck because of oedema of the tissues above and below it.
- The skin over the mark is dry and hard. The base appears pale, while the edges show small abrasions.
- The width of the mark depends on the ligature used.
- The pattern of the ligature may get imprinted on the skin as imprint abrasion.

MANUAL STRANGULATION (THROTTLING):



- When hands are used to squeeze or compress the neck.
- It is always homicidal. At times however, a mild playful tweak on the neck has resulted in death from vagal inhibition.

AUTOPSY FINDINGS:

- Signs of asphyxia are seen. In addition, the following specific findings may be present:
 - Brusing of the neck:
 - ✓ Occurs due to the assailant's fingers grasping the neck.
 - ✓ Usually circular, dark red or purple in colour, and are 1-2cm in size.
 - ✓ If the fingers slide over the skin, elongated marks may be seen.

Autopsy Findings in strangulation

- **INTERNAL FINDINGS IN NECK IN STRANGULATION**
- compressed. The neck muscles may show hematoma or even lacerations (
- Subcapsular and interstitial hemorrhages may also be noted in **thyroid**.
- There may be extravasations or laceration of **carotid** sheath.
- **Fracture of hyoid bone** and thyroid cartilage may be seen in some cases.
- **Other findings:**
- **Lungs** may be congested and edematous and may show fresh hemorrhages in parenchyma.
- Pleura show petechial hemorrhages.
- Abdominal viscera- congested.

Autopsy Findings in strangulation

External Examination:

Findings in neck: The appearance of neck and findings produced may vary according to the means used ; rope, wire, cable etc.

A) Ligature mark

-The ligature mark is usually well defined and grooved.

The mark is present over neck at any level but commonly it is placed at the level or below the thyroid cartilage.

The mark completely encircles the neck horizontally (transversely) and may be prominent on front and at sides .

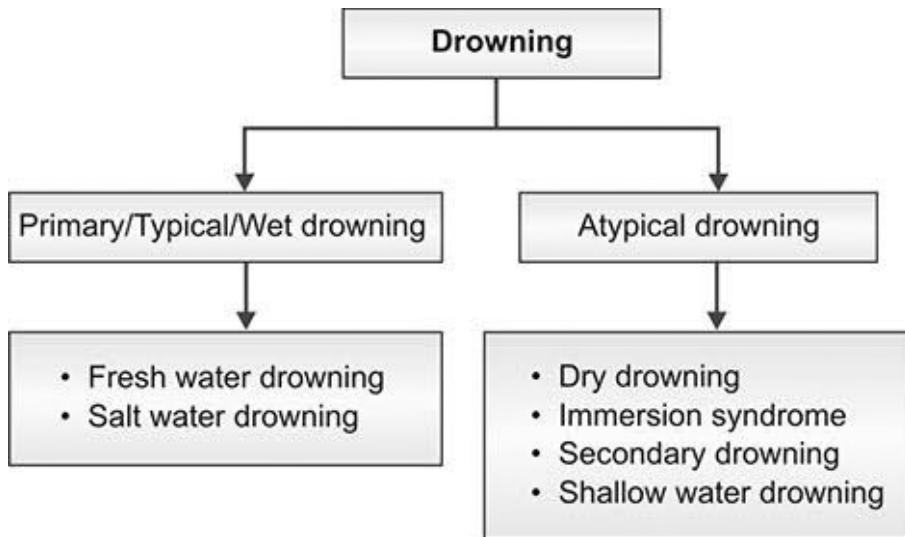
The mark may be multiple, if ligature is twisted many times round the neck.

- If knot is applied, there may be a wider area of contusion at the site of the knot.

- The mark may be oblique as in hanging if the victim has been dragged by a cord after he has been strangled in a recumbent posture or if the victim was sitting and the assailant applied ligature on the neck while standing behind him, thus using the force backward and upward.

Throttling (Manual Strangulation)

- Definition : It is violent asphyxial death produced by compression of neck manually i.e by using human hands.
- The neck is compressed by using hands' Either one hand or both hands may be used to throttle a person.
- **AUTOPSY FINDINGS**
- In addition to signs of asphyxia, injuries may be seen in neck. The injuries are in form of contusion and/or abrasion and depend on:
 - 1) The relative position of victim and the assailant.
 - 2) The number of assailant.
 - 3) The manner of grasping the neck , either with one hand or both hands.
 - 4) Degree of pressure exerted on the neck.



Types of drowning

1-Wet drowning

Water inhaled into lungs & Sever chest pain & if resuscitated : no pleasant recollections

2-Dry drowning

Water not enter lungs & death occurs by immediate sustained laryngeal spasm & if resuscitated : panoramic views of past life

3-Secondary drowning (near drowning)

Death occurs (from 1/2 h to several days) by cerebral anoxia & irreversible brain damage

4- Immersion Syndrome

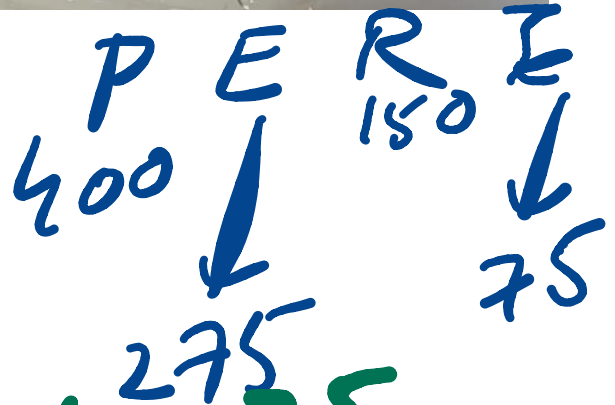
Death occurs by cardiac arrest caused by vagal inhibition (cold water stimulating nerve endings & water striking epigastrium & Alcohol induce such effect)

Station :11

A 62 years old shazia came to the clinic with the complaints of fever and night sweat for the last 1 month. She was given diagnosis of pulmonary tuberculosis after investigations.

Write treatment with 1st line ATT in proper prescription format.

(Don't mention Doctor's specifications)



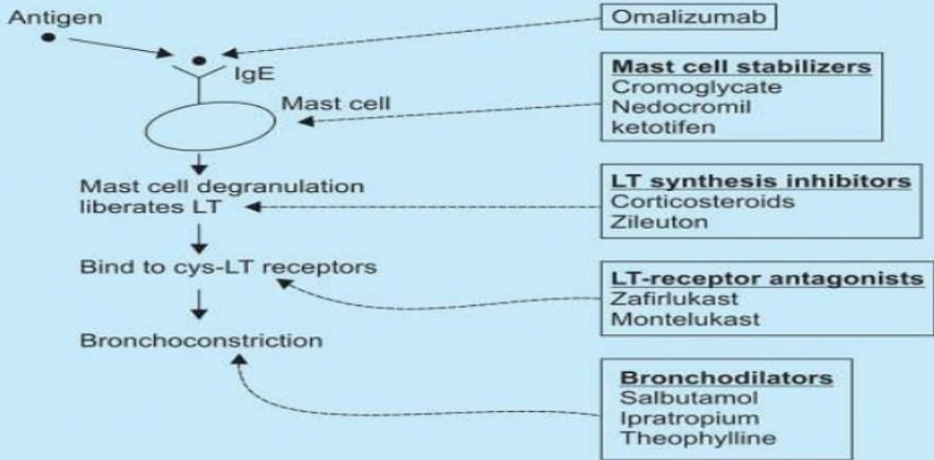
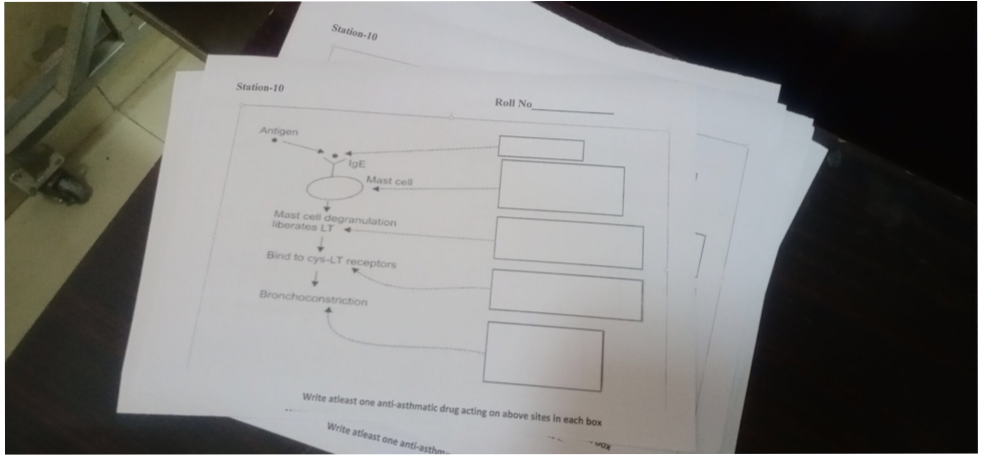
Isoniazid - 75
Rifampicin - 150
Pyrazinamide - 275
Ethambutal - 400

Station#12

- a) Identify the specimen. (0.5)
- b) Write the Medicolegal Importance of Aconite. (2)
- c) What is the Fatal Dose of Aconite? (0.5)
- d) How would you manage a case of Digitalis poisoning? (3)

1. Nicotine (tobacco)
2. Ideal suicide and homicidal poisoning
3. Fatal dose of aconite: 250mg extract, 1g root
4. Digitalis poisoning management:
 - stomach wash with tannic acid
 - ECG monitoring
 - phenytoin
 - lidocaine
 - diuretics





Station : 09

Counsel the patient regarding benefits of use of inhaler rather oral systemic drug indicated for asthma.

Checklist with observer having 5 points.

Counseling the patient regarding the use of inhaler

- 1) directly act on lungs,
- 2) smaller dose of medication required compared to oral tablets
- 3) side effects are less cuz it directly acts on lungs and airways
- 4) relief is quicker
- 5) multiple medications can be taken in one inhaler

- The SPIKES protocol for breaking bad news has four objectives:
- Strategy for breaking bad news.
- P – Perception of condition/seriousness.
- I – Invitation from the patient to give information.
- K – Knowledge: giving medical facts.
- E - Explore emotions and sympathize.

DRUGS FOR HEART FAILURE

1. ACE inhibitors
2. ARBs
3. Beta blockers
4. Diuretics
5. HCN channel blocker
6. Vaso and veno dilators
7. Inotropic drugs
8. Recombination BNP

* Anti Hypertensives

1. Thiazide diuretics
2. Loop diuretics
3. Potassium sparing diuretics
4. Beta blockers
5. ACE inhibitors
6. ARBs
7. Renin inhibitors
8. Calcium channel blockers
9. Alpha adrenergic blockers

ANTI ARRHYTHMICS

Class I - Sodium channel blockers

Class II - Beta blockers

Class III - Potassium channel blockers

Class IV - Calcium channel blockers (Verapamil, Diltiazem)

Digoxin

Adenosine

Magnesium sulfate

Ranolazine

PLATELET AGGREGATION INHIBITORS

1. Aspirin
2. P2Y12 receptor antagonists
3. Glycoprotein IIb/IIIa inhibitors
4. Dipyridamole (PDE inhibitor)
5. Cilastazol

ANTI ANGINAL DRUGS

1. Beta blockers
2. Calcium channel blockers
3. Organic nitrates
4. Sodium channel blockers
5. Trimetazidine
6. Ivabridine
7. Dipyridamole

PARENTERAL ANTICOAGULANTS

1. Heparin and LMW heparins
2. Argatroban
3. Fondaparinux
4. Bivalirudin and desirudin

DIRECT ORAL ANTI COAGULANTS

1. Dabigatran
2. Factor Xa inhibitors (Apicaban, Betrixaban, Rivaroxaban)

THROMBOLYTIC (FIBRINOLYTIC) DRUGS

1. Streptokinase
2. Urokinase
3. Alteplase
4. Tenecteplase
5. Reteplase

ANTI FIBRINOLYTICS

(Drugs used to treat bleeding)

1. Aminocaproic acid
2. Tranexemic acid
3. Protamine sulfate
4. Vitamin K
5. Idarucizumab

Vitamin K Antagonist:
Warfarin

ANTI TB DRUGS

FIRST LINE

1. Isoniazid
2. Rifampicin
3. Pyrazinamide
4. Ethambutal
5. Streptomycin

SECOND LINE

1. Fluoroquinolones
2. Capreomycin
3. Kanamycin
4. Amikacin
5. Linezolid
6. Clofazimine
7. Cycloserine
8. Ethionamide
9. Para amino salicylic acid
10. Thioacetazone

LIPID LOWERING AGENTS

1. Statins
2. Fibrates
3. Cholestyramine
4. Niacin
5. Ezetemibe
6. PCSK9 inhibitors
7. Omega 3 fatty acids

DRUGS USED IN BRONCHIAL ASTHMA

BRONCHODILATORS

1. Sympathomimetics
2. Methylxanthines
3. Anti cholinergics

LEUKOTRIENE RECEPTOR ANTAGONISTS

1. Zafirlukast
2. Montelukast
3. Zileuton

MAST CELL STABILIZERS

1. Sodium cromoglycate
2. Ketotifen

ANTI IgE MONOCLONAL ANTIBODY:
Omalizumab

GLUCOCORTICOIDS

1. Inhaled glucocorticoids
2. Systemic glucocorticoids

* Normal Levels

- Total Cholesterol < 200
- LDL Cholesterol < 100
- HDL Cholesterol
 - Men > 40
 - women > 50
- Triglycerides < 150

CAUSE OF DEATH IN

- * Dry drowning - asphyxia
- * Fresh water drowning- cardiac arrhythmia
- * Salt water drowning - pulmonary edema
- * Hydrocution/ Immersion syndrome - cardiac arrest
- * Near drowning/ secondary drowning - secondary complications

The 4 stages of untreated lobar pneumonia are:

- Stage 1: Congestion
- Stage 2: Red hepatization
- Stage 3: Grey hepatization
- Stage 4: Resolution

The atherosclerosis process

- Fatty streaks formation.
- Atheroma formation.
- Atherosclerotic plaques formation.

JONES CRITERIA for Acute Rheumatic Fever — Think J♥NES PEACE

Major Criteria

J: Joints (polyarthritis, hot/swollen joints)
♥: Heart (carditis, valve damage)
N: Nodules (subcutaneous, extensor surfaces)
E: Erythema marginatum (painless rash)
S: Sydenham chorea (flinching movement disorder)

Minor Criteria

P: Previous rheumatic fever
E: ECG with PR prolongation
A: Arthralgias
C: CRP and ESR elevated
E: Elevated temperature

Diagnosis of RHD is made with a history of recent streptococcal infection and either the presence of 2 major criteria or 1 major with 2 minor criteria.

Abrupt plaque rupture causes mechanical obstruction and exposure of substances that promote platelet activation and thrombus generation, thereby decreasing blood flow which, if persistent, causes Myocardial Necrosis.

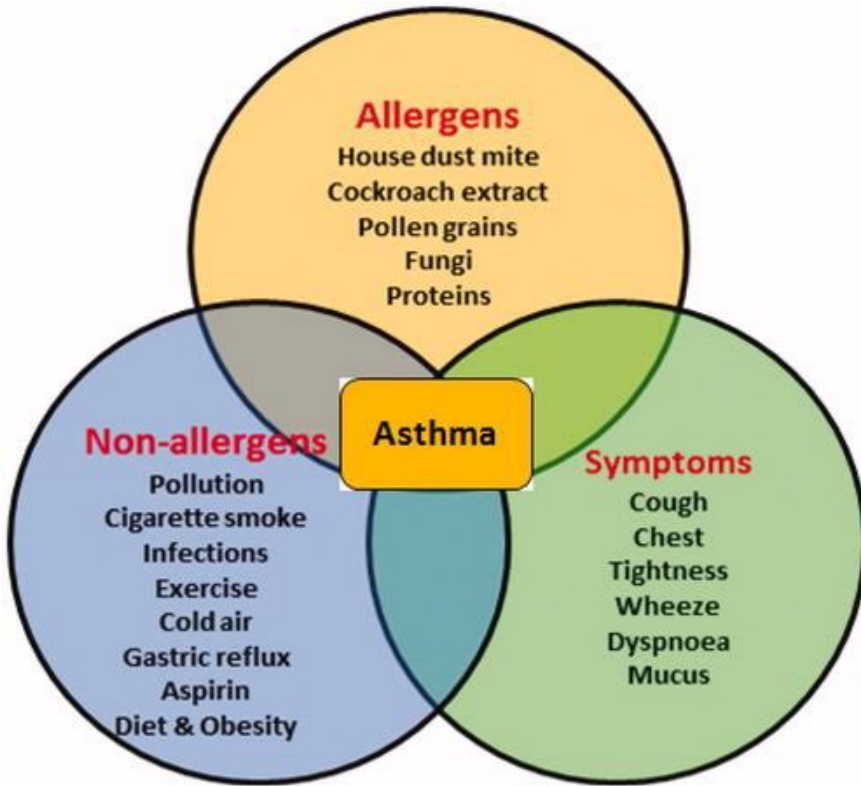
Status asthmaticus is a medical emergency, an extreme form of asthma exacerbation characterized by hypoxemia, hypercarbia, and secondary respiratory failure

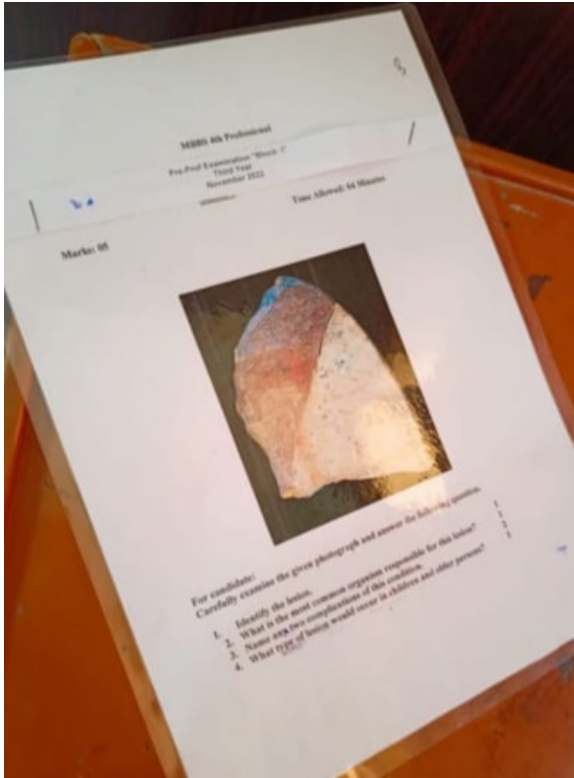
Glucocorticosteroids are the most important treatment for status asthmaticus. These agents can decrease mucus production, improve oxygenation, reduce beta-agonist or theophylline requirements, and activate properties that may prevent late bronchoconstrictive responses to allergies and provocation

Tuberculosis is the formation of an organized structure called granuloma. It consists mainly in the recruitment at the infectious stage of macrophages, highly differentiated cells such as multinucleated giant cells, epithelioid cells and Foamy cells, all these cells being surrounded by a rim of lymphocytes.

Bronchiectasis is a long-term condition where the airways of the lungs become widened, leading to a build-up of excess mucus that can make the lungs more vulnerable to infection. The most common symptoms of bronchiectasis include: a persistent cough that usually brings up phlegm (sputum)

Commotio cordis typically involves young, predominantly male, athletes in whom a sudden, blunt, nonpenetrating and innocuous-appearing trauma to the anterior chest results in cardiac arrest and sudden death from ventricular fibrillation





1. Lobar pneumonia
2. Most common organism - Strep pneumonia
3. Complications: pleural effusion, lung abscess or empyema, respiratory failure, bacteremia (sepsis)

Hyoid bone fractures are classified into three different types:

- Inward compression fractures with outside periosteal tears.
- Antero-posterior compression fractures with inside periosteal tears.
- Avulsion fractures.

Hyoid bone fracture is usually the result of direct trauma to the neck because of manual strangulation, hanging, blunt trauma or projectiles.

Inward compression fracture

- Result of manual strangulation
- Greater horns compressed toward each other
- Fractured fragment angulated or displaced medially

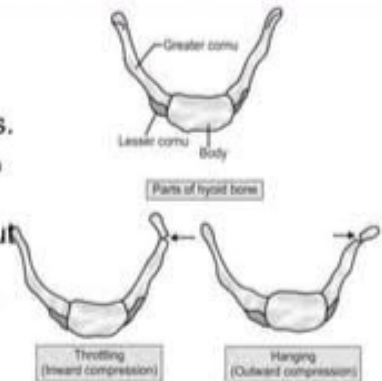
Anteroposterior compression fracture

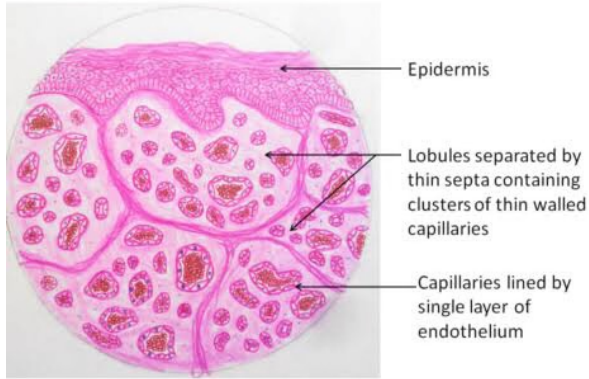
- Result of hanging or force in the anteroposterior direction
- Greater horns diverge from each other
- Fractured fragment angulated or displaced laterally
- In cases of bilateral greater horn fractures, at least one fragment displaced laterally

Avulsion fracture

- Result of muscular overuse; not seen with direct injury to the hyoid
-

- **(3) Avulsion Fractures:** Also called "tug" or "traction" fractures.
- They occur due to muscular overactivity without there being direct injury to the hyoid bone.

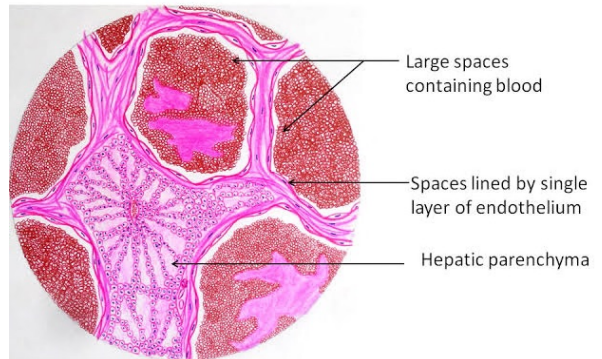




Capillary hemangioma

Hemangioma ID points

1. Thin walled i.e. single epithelium layer surrounding the lumen
2. Scanty cytoplasm
3. Non encapsulated tumor
4. Closely packed vessels



Cavernous hemangioma

PAEDS HISTORY

BIODATA OF BABY

OBSTETRIC HISTORY OF MOTHER

CHIEF COMPLAINT

HOPI

SYSTEMIC INQUIRY

FAMILY HISTORY

BIRTH HISTORY (Antenatal, natal, post natal)

IMMUNIZATION HISTORY

DEVELOPMENTAL HISTORY

SOCIOECONOMIC

DIETARY HISTORY