

# GENERAL MEDICINE

- Seek → Complaint  
→ Questions
- Examination - Physical → General  
→ Systemic → CVS, RS, GIT, CNS
- The Symptoms are the criteria

Communicate → Symptom → History → General Exam

■ Disease - Disturbance in ease

□ Health - well being, not merely an absence of disease.

↓  
Systemic Exam  
↓

Diagnosis

↓

Treatment

A - Attitude

B - Behaviour

C<sub>4</sub> - Compassion, Communication, Confidentiality & Consent

D - Dialogue & Documentation.

▷ Active listening

▷ Systemic Enquiry

▷ History taking

Areas of questioning at the beginning of history taking

- i) Confirm date of birth & age
- ii) Occupation & occupational history
- iii) Past medical history
- iv) Smoking
- v) Alcohol consumption
- vi) Drug & treatment history
- vii) Family history

# HISTORY TAKING

## 1. Complaints / Symptoms (Clinical manifestations)

a) Chronological order → year, month, day, hour

• Incubation time of the ds.

eg: 3 day cough

1 day Fever

Vomiting started at 9am

## 2. H/O of present illness

• Cough, Fever (chills, diff to breath)

- Affirmative qns.

## 3. Past History (Retrospective) Medical History

▷ Occupational History

• Connection of old ds with current ds

eg: Hypertension, Asthma, TB

## 4. Personal History → H/O sexual contact

eg: Smoking, Alcoholism, (Food intake) Malnutrition

## 5. Family History

- Any ds in the family

## 6. Drug History

- What Drug & For how long

## 7. Marital History

## 8. Menstrual H.

## 9. Obstetrics (Ob.) H.

## 10. Menopausal H.

} Female Patient

## The Basic Steps Involved

- Observe the patient for External manifestation
- Pain → Symptom
- Muscular System
  - Prognathia
  - Torticollis
  - Facial deformity
- Syndrome
- Clinical Findings → Hypercholesterolemia, DM
- Physical Characters
  - i. Head & Hair - Texture & Colour
  - ii. Age & Sex - Myxedema, Hydrocephalus, Thyrotoxicosis, Psoriasis
  - iii. a) Face - Rashes, Nephrotic Syndrome - puffiness
  - b) Ear - Anomaly, size & shape
  - c) Eyes - Anemia, Bitot's spots, Cataract
  - ~~iv~~ Jaundice
  - d) Nose - Shape & size
  - e) Tongue - Micro or Macro glossia, beefy tongue, Red tongue (Stomatitis), Glossitis
  - f) Cleft - palate, lip
  - g) Throat - Hoarseness of voice, Stenosis
  - h) Neck - Dilated veins, engorged veins, abnormal vessels
  - i) Chest - shape & Symmetry
  - j) Back - Spine, posture
  - k) Upper limb & Lower limb
- iv. Body stature

## General Examination

1. **A** nemia
2. **B** wilt
3. **B**lood pressure
4. **C**yanosis - Peripheral & Central
5. **D**igital Clubbing
6. **E**dema - Pitting & Non Pitting, Pedal Edema
  - a) Localised - Face, Leg
  - b) Generalised anasarca
  - c) Specialised edema - pulmonary & cerebral edema
7. **F**ebrile (Body Temp -  $37^{\circ}\text{C}$ ,  $98.6^{\circ}\text{F}$ )
8. **G**eneralised Lymphadenopathy
9. **H**earst - Peripheral pulses
  - o Pulse  $\rightarrow$  Rate
  - $\rightarrow$  Rhythm
  - $\rightarrow$  Volume
  - $\rightarrow$  Character
10. **I**cteric - Jaundice
11. **J**ugular Venous Pulse (JVP)
  - ▷ Provisional Diagnosis based on GE
  - ▷ Confirmed Diagnosis on the clinical findings.

## Analysing Symptoms

### 1. 'Hard & soft' symptoms

'Hard' - clearly present, adds a lot of weight to a particular diagnosis

'Soft' - either reported by patient → Doubt or which is present in a variety of conditions as not to be useful in confirming or refuting a diagnosis.

| Hard symptoms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Soft symptoms                                                                                                                                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>• Pneumaturia<ul style="list-style-type: none"><li>- In colovesical fistula</li></ul></li><li>• Fortification spectra<ul style="list-style-type: none"><li>- along with unilateral headache, suggests classic migraine</li></ul></li><li>• Rigors<ul style="list-style-type: none"><li>- Bacteraemia, viraemia or malaria</li></ul></li><li>• Bitten tongue<ul style="list-style-type: none"><li>- Along with seizure, suggests Grand mal fit</li></ul></li><li>• Sudden severe head ache<ul style="list-style-type: none"><li>- Subarachnoid haemorrhage</li></ul></li><li>• Pleuritic chest pain<ul style="list-style-type: none"><li>- Pleural irritation caused by infection or by pulmonary embolus.</li></ul></li><li>• Itching<ul style="list-style-type: none"><li>- Along with Jaundice, indicates intra or extrahepatic cholestasis</li></ul></li></ul> | <ul style="list-style-type: none"><li>• Dizziness</li><li>• Light headedness</li><li>• Tiredness</li><li>• Back pain</li><li>• Headache</li><li>• Wind.</li></ul> |

# RESPIRATORY SYSTEM - GM(172)

## Symptoms

1. Cough - Whooping Cough, Bronchial Asthma, TB,  
→ Can be short lived or last years

▷ Acute - ~~more~~ lasting fewer than 3 weeks

▷ Chronic - lasting more than 8 weeks

→ May be dry or may produce sputum.

a) Acute → Bacterial or viral infection

• If associated with haemoptysis, it is a cause for concern, appropriate assessment & a baseline chest x-ray is necessary.  
(CXR)

b) Chronic → more than 8 weeks, CXR & Spirometry as baseline investigations.

## Questions ?

1. How long has the cough been present?

2. Is the cough worse at any time of day or night?

3. Is the cough aggravated by anything

eg:- Allergic trigger such as dust, pollen or

4. Is it Non-specific triggers such as exercise or colds.  
5. Is it dry or productive

2. Sputum - Bronchietitis

i. What does it look like?

▷ Colour, Odour, Mucoid or puss nature

eg: Frothy sputum → pink colour.

Jelly-like sputum → Asthma

Yellow / Green sputum (purulent) → Eosinophil accumulation mostly in asthma.

ii. How much is produced?

• Severe lung damage in infancy & childhood

- Bronchiectasis was often found in adults.
- The amount of sputum produced daily exceeded a cupful. Bronchiectasis is now rare.
- Chronic Bronchitis causes pn. of smaller amounts of sputum.

### 3. Halitosis (Bad breath)

- Suppurative lung ds
- & in patients with gingivitis owing to poor dental hygiene.

### 4. Haemoptysis (Blood in sputum)

a. Frank - massive (300ml)

b. Spurious

c. Pseudo

→ Streaky

★ In R.S → Angina, Pleural effusion, Heart Attack

### 5. Chest Pain

→ (CVS)

, Myocardial ischaemia, aortic

a)

dissection & pulmonary embolism

→ These are the major causes of Acute chest pain

b)

Recurrent chest pain, angina, oesophageal reflux, musculo skeletal pain

→ Cause for Chronic chest pain

◦ Angina Pectoris

- usually a symptom of atherosclerotic coronary artery ds, which impedes myocardial oxygen supply.

- Severe anaemia or hypoxia

- Coronary artery spasm

- Tachyarrhythmias.

## 6. Fever

- ↑ in core body temp
- The daily range of core body temp is b/w  $35.6^{\circ}\text{C}$  &  $37.8^{\circ}\text{C}$  ( $97^{\circ}\text{F}$  &  $100.4^{\circ}\text{F}$ )
- Toxic symptom - pneumonia
- Most common - evening rise of temp → TB

## 7. Rhinitis & Nasal Discharge

- A common cause of chronic cough is postnasal drip secondary to rhinitis.

## 8. Wheeze

→ Bronchial Asthma.

- Due to airway narrowing; musical sounds are heard.
- Diffuse airway obstruction in asthma & COPD.

## 9. Cyanosis - Central & Peripheral

|    |                    |       |
|----|--------------------|-------|
| Hb | <u>R</u> educet    | > 5   |
|    | <u>M</u> etmylated | > 1.5 |
|    | <u>S</u> ulphated  | > 0.5 |

## 10. Loss of Appetite & weight

## 11. Clubbing

- Grade 4 - PHOA (pulmonary hypertrophy, osteo atrophy)
- As clubbing develops, the tissues at the base of the nail are thickened & Lovibond's angle is lost.
- Subsequently the nail becomes more convex, both transversely & longitudinally, & seems to 'float' in a softened nail bed.

## 12. Cachexia

- It involves diffuse muscle wasting, but usually power is surprisingly good.

## 13. Pallor - Anemia

## 14. Lymphadenopathy

- Examination of lymph nodes involve inspection & palpation. Determine the size, position, shape, consistency, mobility, tenderness of the node. & whether it is isolated lymph node or several coalesce.

## 15. Hoarseness of voice

- Left or Right Recurrent Laryngeal nerve lesion
- ▷ Patients using inhaled corticosteroids for asthma develop this.  
□ It improves on changing the treatment.
- ▷ Laryngopharyngeal reflux (LPR) is increasingly recognized as a cause of hoarseness and chronic cough & can be diagnosed on direct visualization of upper airway.
- If hoarseness persists for more than 4 weeks, Laryngoscopy is always indicated.

## 16. Stridor

- ▷ Harsh, high-pitched musical breathing noise caused by narrowing of upper airways with impending complete obstruction.
- Stridor may be inspiratory, expiratory or biphasic
- Inspiratory stridor indicates laryngeal obstruction
- Expiratory stridor: Intrathoracic obstruction
- Causes - tumours, peritonsillar & retropharyngeal abscesses, Inhalation of foreign body & Laryngotracheobronchitis (croup)

## 17. Fungal Infections → AS → TB

Note Ringworm or tinea.

eg:  $\Delta$  tinea pedis - skin b/w toes

$\Delta$  tinea ~~cutis~~ - soles of feet & groin  
Cousis

$\Delta$  tinea capitis - scalp, most common in children

## 18. Malignancy.

- Lung tumours

## 19. Bronchogenic carcinoma

→ Horner's Syndrome - ptosis (drooping of eyeball)

## 20. Paraneoplastic Syndrome

- Lung cancers

21. Dyspnoea - Abnormal awareness of breathing occurring either at rest or at an unexpectedly low level of exertion.  
(Breathlessness)

▶ Sudden onset Dyspnoea is due to:

- |                         |                                 |
|-------------------------|---------------------------------|
| 1. Pulmonary embolism   | 5. Parenchymal dis (Pneumonia)  |
| 2. Pulmonary edema      | 6. Chronic dis. Pul (Lung) Dis. |
| 3. Pneumothorax         | 7. Myocardial infarction        |
| 4. Pericardial effusion |                                 |

## 22. Tachypnoea

## 23. Hyperventilation

Extra

## 24. Orthopnoea

- In patients with HF, lying flat causes a steep rise in LA & Pul. cap. Pressure, resulting in pul. congestion & severe dyspnoea

## 25. Paroxysmal Nocturnal Dyspnoea (PND)

- Frank pul. oedema on lying flat wakes the patient from sleep with distressing dyspnoea & fear of imminent death.
- The symptoms are corrected by standing upright, which allows gravitational pooling of blood to lower the left atrial & pul. cap. pres.
- The patient often feeling the need to obtain air at open window.

26. P

# CARDIOVASCULAR SYSTEM GM(193)

## 1. Chest Pain

a) Acute / Severe:

M. ischaemia, pericarditis,  
aortic dissection & pul. embolism

b) Chronic / Recurrent:

Angina, oesophageal reflux,  
Musculoskeletal pain

## 2. Palpitation

▷ Awareness of heart beat is common during  
exercise or heightened emotion

- Indicative of an abnormal cardiac rhythm.

## 3. Dyspnoea

## 4. PND

## 5. Orthopnoea

## 6. Cough with pink frothy sputum

## 7. Fever - Rheumatic, Infective endocarditis

## 8. Cyanosis - Heart ds

## 9. Clubbing - Acute & chronic

## 10. Edema

## 11. Embolic phenomenon.

## 12. Haemoptysis

## 13. Purpura

- Endocarditis.

14. Hoarseness of voice .

- Osler's syndrome

15. Syncope attack

1) CAD, MI

2) Chest pain, palpitation } Mitral stenosis  
Dyspnoea, Syncope }

3) Angina, Syncope, } Aortic stenosis  
Dyspnoea }

4) Palpitation, Dyspnoea, } Aortic  
Chest pain, Tachycardia } Regurgitation

5) Orthopnoea, platypnoea } Mitral  
regurgitation

6) Sudden worsening of CD } Infective  
Endocarditis

7) Embolic stroke

16. Nocturnal angina

17. Abdominal pain

## ANGINA

Site

Onset

Character

Radiating / Relieving Factors

Associated features

Timing

Exacerbating factors

Severity.

## 1. Abdominal Pain (AP)

- ▷ Acute (mostly) - Peritonitis, Pancreatitis
- ▷ Subacute
- ▷ Chronic

◦ AP often radiates or spreads from one site to another.

◦ The pattern of radiation indicates specific diseases.

eg! ▷ Pancreatic pain → radiates through to back

↓

Relieved on bending forward.

▷ Pain from passage of vesicular stones

↓

Radiates from loin to groin on respective sides.

S - Site

O - Onset

C - Character

R - Areas of Radiation

A - Associated features

T - Timing including duration & frequency

E - Exacerbating & relieving factors.

S - Severity

## 2. Nausea

## 3. Vomiting

▷ Forceful expulsion of gastric contents through the mouth or nose.

▷ Maybe due to an obstruction or neurogenic response

▷ Triggered by → Chemoreceptors ~~from~~ in the brainstem  
→ As a reflex from irritation of stomach.

▷ It consists of: ◦ A phase of nausea,

◦ Followed by Hypersalivation

Retching

↓

Involuntary effort to vomit

◦ Pallor

◦ Sweating &

◦ Hyperventilation

★ Pyloric Stenosis → the vomit is copious & sour smelling, Froth on surface after standing, but no bile.

★ Advanced intestinal obstruction → Faeculent vomit, brown in colour & has a faecal odour.

★ Invading colonic carcinoma → Fistula b/w stomach & transverse colon

↓  
Vomit with foamed faeces (Rare)

#### 4. Abdominal Discomfort / Flatulence

- Passage of excessive wind
- Associated with belching, abdominal distension & passage of flatus per rectum.
  - ↳ Excessively swallowed air
- Maybe due to ingestion of certain foods, legume, beans, broccoli & cabbage.

#### 5. Abdominal distension

- Caused by:
  - Fluid (Ascites)
  - Fat (Obesity)
  - Foetus (Pregnancy)
  - Flatus
  - Faeces
  - Food
- Can be
  - 1. Symmetrical
  - 2. Asymmetrical

1) Symmetrical distension → Ascites & Obesity

↓  
Liver cirrhosis, ECF, N's  
Abdominal malignancies

2) Asymmetrical distension → marked enlargement of  
◦ Hepatomegaly, splenomegaly organs.

→ Large mass lesion

◦ Intra-abdominal cancers, lymphomas or peritoneal malignancies.

#### 6. Loss of Appetite / Weight loss

#### 7. Satiety

#### 8. Burning sensation / Heartburn & Reflux

Mass / Swelling → S - site, size, shape of swelling  
P - position  
A - Attachment  
C - Consistency  
E - Edge of swelling

☐ Heart burn - Burning sensation perceived in the chest or neck

- Caused by acid reflux from stomach into oesophagus & seen in patients with GERD.

→ Difficult to distinguish from angina

☐ Reflux / Regurgitation

- Non-acidic fluid or bile regurgitation into mouth, causing a bitter taste and disagreeable sensation retrosternally.

→ GERD

9. Constipation

- Reduction in volume or frequency of stool or an increase in hardness of stool

10. Diarrhoea

- Increase in frequency of bowel movements

- ▷ Passage of more than 3 stools per day or

- ▷ Passage of large amount of stool (>300g/day)

11. Bleeding per Rectum / Rectal Bleeding

- Bright red blood loss that is separate from the stool or just noticeable on toilet paper

- Haemorrhoids are common cause.

- Darker red & mixed with stool → above rectum

- carcinoma

- Large volume of red blood per rectum, not from colon

- Haematochezia

→ upper GI source

## 12. Dysphagia (& odynophagia)

→ Difficulty in swallowing

- ° Patients → awareness of something sticking in the throat or chest to an inability to swallow.
- Red flag symptom - associated with oesophageal cancer or cancer of gastric cardia/fundus.

### ▷ Causes

#### i) Obstructive

- a. Intraluminal: Foreign body
- b. Within walls: Stricture, cancer
- c. Extraluminal: Goitre, thymoma, mediastinal lymphadenopathy, Compression from enlarged aorta/heart.

#### ii) Non obstructive

- d. Oesophageal: Achalasia cardia; esophagitis
- e. Systemic: Stroke, multiple sclerosis, myasthenia gravis

### □ History taking of Dysphagia

- Onset: Sudden vs Gradual
- Duration: yrs or months or days.
- Is it worse with solids than liquids?
- Difficulty in swallowing saliva
- Accompanied with reflux
- Loss of weight, loss of appetite, iron def. anemia.

□ Odynophagia → painful swallowing owing to inflammation in oropharynx or prox. esophagus, which may occur with or without dysphagia.

→ Due to inflammation / Infection

- Candida oesophagitis

13. Jaundice

14. Hematuria

15. Hematemesis - vomiting of blood  
◦ upper GI lesion

16. Melaena

◦ Passage of black, tarry stool

5s' → - Schwartz (Black)

- Sticky

- Smelly

- Shiny

- Stool

▷ Black colour is owing to blood as it gets denatured (digested), as it passes through the acid in stomach & long transit through small bowel.

17. Dysuria

18. Dysmenorrhea

19. Menorrhagia

20. Cough Impulsion

21. Fever → UTI, malaria

22. Pedal edema

23. Dyspepsia / Indigestion

→ Includes - epigastric pain, heartburn, distension, nausea or acid feeling occurring after eating or drinking, bloating & belching.

24. Anorexia

◦ Loss of appetite

◦ May associated with GI or non-GI condition.

→ Linitis plastica - gastric cancer

→ Upper GI malignancy - ↓ gastric capacity to digest

25. Itching

26. Urinary symptom.

### Itch / Pruritus

→ Associated with liver ds or obs. jaundice

- 1° sclerosing cholangitis &
- Cholestasis of pregnancy (only symptom)

↓  
Itch

+ Jaundice

↓

- Carcinoma of pancreas head
- Cholangio carcinoma

- Presence of elevated bile salts & diminishes more quick than jaundice. when the biliary obstruction is relieved.

- It is composed of :
- Thyroid, Parathyroid
  - Hypothalamus, Pituitary
  - Adrenal, Gonads
  - Pancreatic islet cells.

## PRESENTING SYMPTOMS

1. Thirst & Polyuria
  - Polydipsia → Excessive Thirst
  - Polyuria → Increased urine output

} DM
2. Weight Loss
  - ↓ food intake or ↑ metabolic rate
  - Hyperthyroidism
3. Weight gain / Redistribution
  - ↓ in metabolic rate & ↑ Food intake
  - Hypothyroidism
  - Obesity
  - Cushing's Syndrome (Glucocorticoid ↑↑↑)
    - Increase in body fat.
4. Muscle weakness
  - Thyrotoxicosis, Cushing's syndrome, Vitamin D deficiency.
  - Symmetrical proximal weakness
  - Associated muscle wasting
5. Cold intolerance
  - Hypothyroidism

## 6. Heat Intolerance

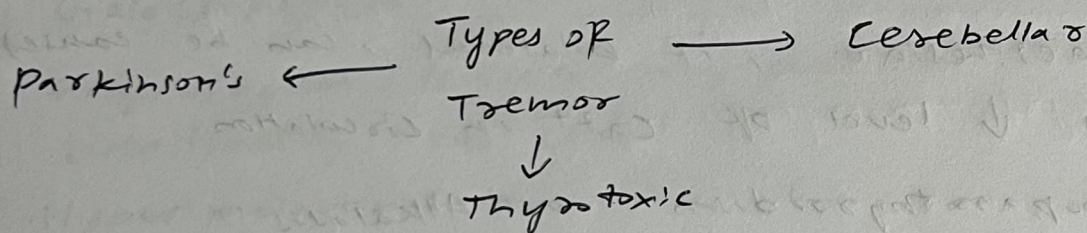
- Thyrotoxicosis
- Thyroid overactivity

## 7. Increased Sweating

- Hyperhidrosis - onset in childhood or adolescence or by family history.
- ↑ catecholamines due to pheochromocytoma of adrenal medulla is a rare cause.
- ↑ GH - acromegaly
- Hypertrophy of sweat glands

## 8. Tremors

- Fine rapid resting tremor → cardinal feature of Thyrotoxicosis



## 9. Palpitations

- Heightened, unpleasant awareness of heartbeat.
- Thyrotoxicosis or due to anxiety.
- Paroxysmal tachyarrhythmias.

## 10. Postural unsteadiness

- Dizziness, or a sensation of faintness on standing
- Postural hypotension - ↓ of DBP on standing
- caused by Autonomic neuropathy in long standing patients with DM
- Complication of drug therapy for hypertension

## 11. Visual Disturbance

- Blurred vision - Hyperglycaemia
- Decreased visual acuity - Optic nerve compression
- Bitemporal hemianopia
- Diplopia - MR or LR muscle tethering in (Double vision) Dys thyroid eye ds.
- Macropsia - Hypoglycaemia  
(Magnified vision)  
→ Apparent

## 12. Fasting Symptoms

- Tachycardia, sweating & tremor occurring intermittently
- Hypoglycaemia

## 13. Cramps & 'pins & needles'

- Paraesthesiae, if bilateral, can be caused by ↓ level of  $Ca^{2+}$  in circulation.
- Hypoparathyroidism or Alkalosis

## 14. Nausea

- Adrenal Insufficiency → max in morning  
↓  
may be asso. with vomiting
- Thyrotoxicosis → Nausea,  
→ vomiting  
→ looseness of stools

## 15. Dysphagia

- Multinodular thyroid enlargement with retrosternal extension.

## 16. Neck pain & Swelling

- Thyroid enlargement.

## 17. Impotence

- Reduced erectile potency.

## 18. Gynecomastia

- Smooth, firm, mobile, often tender disc of breast tissue under the areola in male.

## 19. Amenorrhoea

- Absence of menstrual periods (menses)
- Ovarian failure
- Thyroid dysfunction
- Defects in lower genital tract development
- Hypothalamic-pituitary dysfunction.

## 20. Galactorrhoea

- Physiological lactation may persist after breastfeeding has ceased
- Hyperprolactinaemia
- Idiopathic galactorrhoea

## 21. Excess hair growth / Hirsutism

- ↑ in growth of facial & body hair in adult females
- caused by ↑ circulating androgens

## 22. Bowel disturbance

- Constipation & abdominal distension
- Hypothyroidism, Hypercalcaemia or panhypopituitarism.
- Zollinger-Ellison syndrome → peptic ulceration.

## 23. Skin changes

- Testicular Failure  $\rightarrow$  Pallor & Panhypopituitarism
- ACTH dependent Cushing's Syndrome  $\rightarrow$  Excessive pigmentation

## Family History

### a) Thyroid disease.

- Autoimmune hypothyroidism & hyperthyroidism
- Dysphormonogenic goitre
- Organospecific autoimmune as - pernicious anaemia, vitiligo, Addison's etc.

### b) Renal calculi

- Primary hyperparathyroidism  $\rightarrow$  renal stones
- Multiple endocrine neoplasia (type 1)

Symptoms

1. Headache
2. Vomiting
3. Syncope / Fainting  
Aggravated on exertion → Cardiac  
↓  
NOT → Neuro
4. Transient Ischaemic attack

Brain

5. Sudden loss of consciousness
6. Coma
7. Memory power disturbance
8. Speech (Husky voice)
9. Olfactory nerve lesion  
◦ Anosmia (loss of smell)
10. Optic Nerve lesion  
◦ Loss of vision.
11. Oculomotor nerve  
◦ Ptosis
12. Movement of Eyeball  
◦ CN - 3, 4, 6 → LR6  
↓  
SOL
13. Trigeminal lesion  
◦ Ophthalmic, maxillary & mandibular N affected
14. UMN & LMN Palsy  
↓  
Hemiplegia      Bell's palsy  
Typical & Atypical - Facio, brachio, crumplegia

15. Facial nerve

16. Vestibulocochlear N.  
- Rinne's & Weber's Test

17. Glossopharyngeal N.

→ Food swallowing, speaking,  
(By tongue)

18. Vagus N.

- Rgurrgitation / Reflex

19. Acc. Cra. N

→ Shrugging of shoulder

20. Hypoglossal N.

→ Movement of Tongue

\* Lower C. involvement  
- 9, 10, 12 CN.

21. Muscle

- Bulk, tone, power

22. Pain (in thigh)

◦ Myofib

23. Weakness

24. Incoordination

25. Tremor, Rigidity

26. Hypokinesia

27. Cerebellar disorders

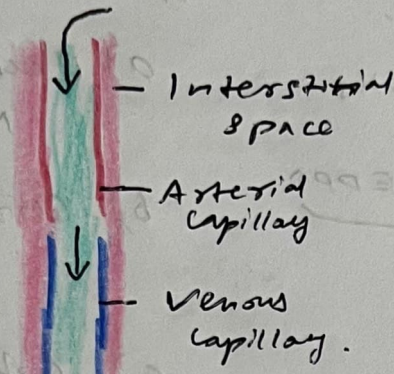
28. Spinal tract injury

# OEDEMA (GM-298, 25, 200)

Answer

Fluid Retention / Swelling / Accumulation of fluid in the interstitial spaces.

□ Mechanism:



↑ Capillary Hydrostatic pressure

OR

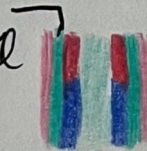
↓ Capillary Oncotic pressure.

↓  
Capillary leakage

↓  
↑ Interstitial fluid

↓  
**Edeema**

↑ C. HSP & ↓ COP



□ Factors:

1. HSP / COP
2. RAAS
3. Sym. N. Sys
4. ↑ secr. of AVP [Arginine vasopressin]
5. ↑ secr. of Endothelin
6. ↑ secr. of Atrial BNP.

↓ CO ⇒ ↓ EABV / ↓ RBF

↓  
↓ Affer & Effer. Glom.

↓  
↑ Rennin Sec

↓  
↑ RAAS

↓  
③

↓  
④

↓  
⑤

↓  
⑥

## Causes

### 1. Cardiac

→ Myopathy, Pericarditis

$LVEF \downarrow$ ,  $LVEDV \uparrow$ ,  $EDP \uparrow$

$CO \downarrow$

$\downarrow RBF$

$\downarrow BF \rightarrow JGA$

Renin secretion

$Na^+ / H_2O$   
Absorption

Distension of  
vessels

$\uparrow$  Cap. HSP

Edema

### 2. Renal

a) Acute Glomerular  
Nephritis

b) Chronic Glomerular  
Ds.

c) C.K.D

B.F to Kidney  $\downarrow$

APR ast. contract

EPH ast. contract

Renin

$\uparrow Na^+ / H_2O$   
Absorption

Edema

## Nephrotic Syndrome

$\uparrow$  Protein /  $\uparrow$  Albumin

leakage

Hypo (Protein) Albumin

$\downarrow$  Cell. Osm. Pres

$\uparrow$  Capill. leak

Edema

## Malnutrition

$\downarrow$  Protein / Energy

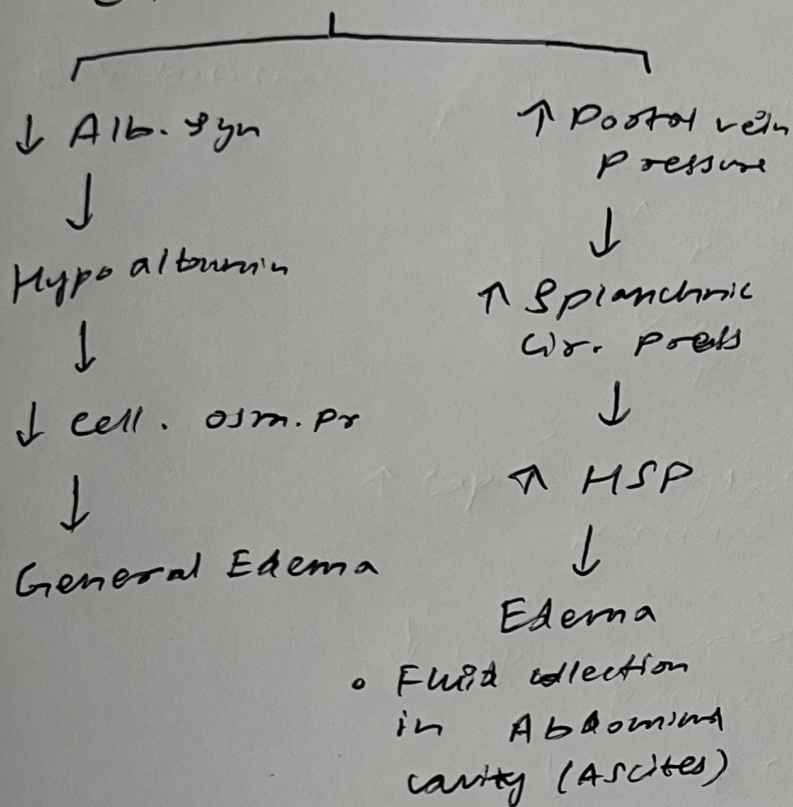
Hypo protein / Albumin

$\downarrow$  Colloid Osm. pr.

Edema

### 3. Liver

#### Chronic Liver Ds



### 4. Sometimes - Local

a) Venous Obstruction

b) Lymphatic obst.