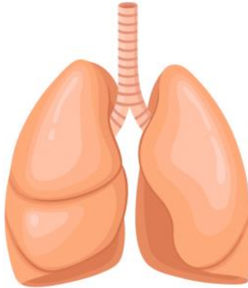

CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD)

CASE 1.
Chronic Obstructive Pulmonary Disease (due to Smoking) with Bronchiectasis with Respiratory-Failure without Cor-Pulmonale with Secondary Polycythaemia

CASE 1. Chronic Obstructive Pulmonary Disease (due to Smoking) with Bronchiectasis with Respiratory-Failure without Cor-Pulmonale with Secondary Polycythaemia

1. My clinical diagnosis of this gentleman is **Chronic Obstructive Pulmonary Disease** with **Bronchiectasis,** evidence by the Tracheal-Central, Chest Expansion is =Reduced Bilaterally-Symmetrically, **Increased Anterior-Posterior Diameter**, Percussion-Note is= Hyper-Resonant, Breath-Sound =Vesicular-with-Prolong-Expiration with Expiratory-Rhonchi.

Increased Anterior-Posterior Diameter

2. Additionally, he has got **Coarse Inspiratory Crackles**, **Changes with Coughing**.
3. Along with that, I have found **Nicotinic Staining** and **Slight Clubbing Changes**.

Nicotinic Staining and **Slight Clubbing Changes**.

4. Also he has got **Secondary Polycythemia** and also evidence of **Carbon-Di-Oxide Retention**, and also has got **Leg Edema.**

Secondary Polycythemia

5. Putting all them together, my clinical diagnosis of this gentleman is **Chronic Obstructive Pulmonary Disease** and **Bronchiectasis**, which is complicated by **Respiratory Failure**, may be the **Type-2-Respiratory-Failure,** may be the evidences of **CO2 Retention**.

6. I would like to confirm the diagnosis with **Bedside ABG**, whether he has got the **Respiratory Failure**, but he has got the **Evidence of CO_2 Retention.**
7. Also this **Chronic Lung Disease** in form of **Chronic Obstructive Pulmonary Disease** and **Bronchiectasis** is complicated by **Heart Failure**, evidenced **by Leg Edema** that is, **Cor-Pulmonale**.
8. Also like to add, this gentleman having **Secondary Polycythemia** evidences and **Slight Clubbing** and **Nicotinic Staining,** that means he needs **Long-Term-O2-Therapy** but need to confirm with doing the **ABG.**
9. I would like to confirm the diagnosis doing the **CBC** to get confirm **Polycythaemia** and also the **ABG** report based on that, we will determine the patient may need needs **Long-Term-O2-Therapy** or not.
10. I would like to do **Chest X-Ray** to confirm the changes consistent with **Chronic Obstructive Pulmonary Disease**, and also to confirm the diagnosis of **Bronchiectasis** to do the **HRCT-Chest** and also do the **PFT**- will give the idea about the levels and severity of **Chronic Obstructive Pulmonary Disease** based on **FEV1** reports and also I would like to see the **Pulmonary Function Status** of the gentleman.

CASE 2.
Chronic Obstructive Pulmonary Disease with Pulmonary Fibrosis with Respiratory-Failure with Cor-Pulmonale

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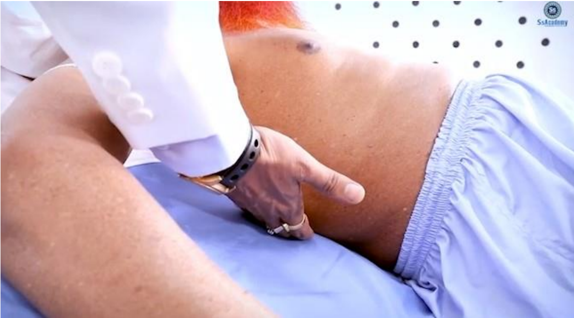
CASE 2. Chronic Obstructive Pulmonary Disease with Pulmonary Fibrosis with Respiratory-Failure with Cor-Pulmonale

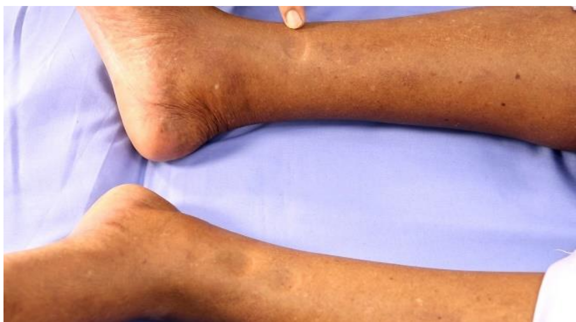
1. My clinical diagnosis of this gentleman is **Chronic Obstructive Pulmonary Disease,** as evidenced by **Chest Expansion= Reduced-Symmetrically-Bilaterally**, **Percussion-Note= Hyper-Resonant** along with the **Vocal Resonance** and **Breath Sound= Vesicular-with-Prolonged-Expiration-with-Expiratory-Rhonchi.**



AP-Diameter-Increased

2. He also has got **Pulmonary Fibrosis**, evidenced by **Bilateral-Fine-End- Inspiratory-Crackles** predominantly in the Both Lower Zones and also the Chest Expansion, Percussion Note, Vocal Resonance which are very consistent with **Pulmonary fibrosis**
3. Along with that the **Pulmonary Fibrosis** is complicated by **Respiratory Failure**.
4. I have seen **C02 Retention Findings** like, **Warm Hands-Palmar Erythema-Bounding Pulses.** I would like to do **ABG** to see whether he is having **Respiratory Failure** on not.

5. His **Chronic Obstructive Pulmonary Disease** is complicated by **Cor-Pulmonale** evidenced by **Leg Edema.**



Leg Edema = Cor-Pulmonale

6. I have not found any stigmata of **Steroid** evidence at the bed side.
7. So putting all them together, my clinical diagnosis of this gentleman is **Chronic Obstructive Pulmonary Disease** along with **Pulmonary Fibrosis** but the **Predominant Picture** is **Chronic Obstructive Pulmonary Disease** that is the **Obstructive Airway Disease**, which is complicated by **C02 Retention Findings** and also **Cor-Pulmonale** and he is not on **Steroid** at this moment.
8. I would like to confirm my diagnosis by **Chest X-Ray** to see **Obstructive Changes** like **Hyper-Inflated Lungs**.
9. **Secondly**, I would like to do **CBC** to looking for **Polycythemia** to get the idea that we need to put him on **Long Term O2 Therapy** or not.
10. **Thirdly**, I would like to do **Full Spirometry,** where the **FEV1/ FVC Ratio**=**Less Than 70%** will indicate **obstructive airway disease** and **More Than 70%** will signify **Restrictive Airway Disease**.

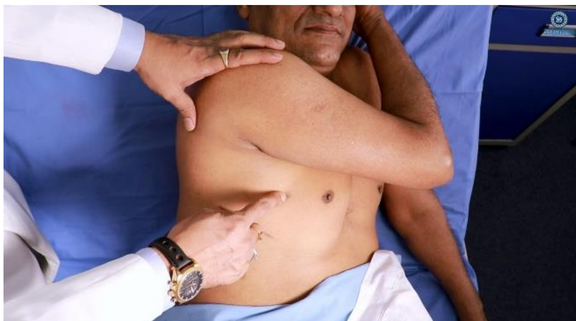
11. I would like to confirm my diagnosis by doing **HRCT-Chest** to see any **Fibrotic Changes** and extent of damage of the lung.

***Ss-Tips**: Always try to say the underlying aetiology of the Lung Diseases; Like,
COPD
COPD due to Smoking COPD due to A1ATD COPD due to Occupational Chemical Exposure (Clues: Instruction Board=H/O Chemical Exposure)
Pulmonary Fibrosis
Pulmonary Fibrosis due to Drugs Pulmonary Fibrosis due to Occupational Exposure Pulmonary Fibrosis due to Connective Tissue Disorders

CASE 3.
Chronic Obstructive Pulmonary Disease (Emphysema) (due to Smoking) with Secondary Polycythaemia with Bilateral Bullectomy without Respiratory-Failure without Cor-Pulmonale

CASE 3. Chronic Obstructive Pulmonary Disease (Emphysema) (due to Smoking) with Secondary Polycythaemia with Bilateral Bullectomy without Respiratory-Failure without Cor-Pulmonale

1. My clinical diagnosis of this elderly man is **Chronic Obstructive Pulmonary Disease** in the form of **Emphysema** as evidenced by reduced **Chest Expansion, Percussion Note=**Hyper-Resonant**, Breath Sound** is diminished or reduced along with **Vesicular With Prolong Expiration with Expiratory Rhonchi** with no added sound and also **Vocal Resonance** is diminished . The **Trachea** is Centrally Placed.
2. This gentleman underwent **Bilateral Bullectomy**, as evidenced by **Bullectomy** or the **Thoracotomy-Scar**.



Right sided **Bullectomy**

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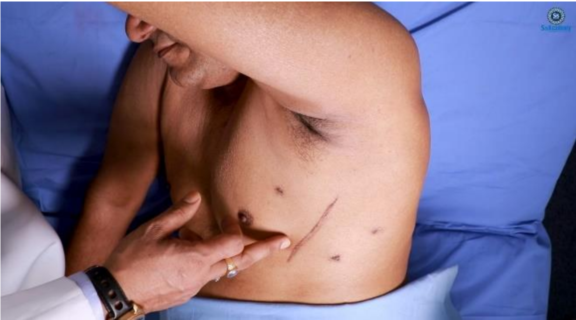

Left sided **Bullectomy**

3. And the **Chronic Obstructive Pulmonary Disease**, underlying **Aetiology** is **Smoking,** as evidenced by **Nicotinic Staining** that I have found.

Smoking

4. This **Chronic Obstructive Pulmonary Disease** is not complicated by **Respiratory Failure** right at this moment as absence of **Cyanosis** or any **CO2 Retention Findings**
5. Also this gentleman has got **Polycythemia** that is **Secondary Polycythemia**.

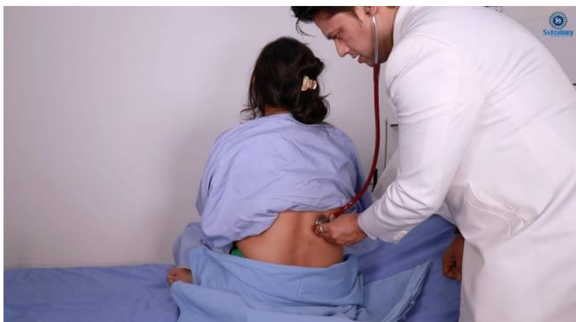
Congested Blood vessels = **Secondary Polycythemia**

6. This gentleman has no **Steroid Stigmata** present at the bedside
7. His **Chronic Obstructive Pulmonary Disease** is not complicated by **Cor-Pulmonale** as absence of **Leg Edema**.
8. Putting all them together, my clinical diagnosis of this gentleman is **Chronic Obstructive Pulmonary Disease** in form of **Emphysema** which is not complicated by **Respiratory Failure** or **Cor-Pulmonale** and he underwent **Bilateral Bullectomy** and the underlying aetiology is **Smoking.**

CASE 4.
Chronic Obstructive Pulmonary Disease due to A1ATD (ALPHA-1-ANTI-TRYPSIN DEFICIENCY) without Respiratory-Failure without Cor-Pulmonale

CASE 4. Chronic Obstructive Pulmonary Disease due to A1ATD (ALPHA-1-ANTI-TRYPSIN DEFICIENCY) without Respiratory-Failure without Cor-Pulmonale

1. My clinical diagnosis of this young lady is **Chronic Obstructive Pulmonary Disease** in form of **Emphysema** especially the **Lower Lobe Emphysema** as evidenced by reduced **Chest Expansion** in the **Both Lower Zones**, **Percussion note** is **Hyper Resonant**, **Breath Sound** is **Vesicular with Prolong Expiration** with **Expiratory Rhonchi** with **No Added Sound**, **Increased Vocal Resonance** and the **Trachea** is **centrally** placed.



Lower Lobe Emphysema = Breath Sound - **Vesicular with Prolong Expiration** with **Expiratory Rhonchi**

2. This **Chronic Obstructive Pulmonary Disease** is not complicated by **Respiratory Failure** as absence of **Cyanosis** and **CO2 Retention** findings.
3. Also not complicated by **Right Heart Failure** or **Cor-Pulmonale** as absence of **Leg edema**, but I would like to do **Cardio Vascular System** examination to exclude

features of **Pulmonary Hypertension** and **Right Heart Failure**.

4. She is not on **Steroid** as absence of any bedside evidences of steroid use.
5. Putting all them together, my clinical diagnosis of this young lady is **Chronic Obstructive Pulmonary Disease** in the form of **Lower Lobe Emphysema** without **Respiratory failure** or **Cor-Pulmonale** and she is not on **Steroid** and the underlying aetiology of this **Lower Lobe Emphysema** is **A1ATD (ALPHA-1-ANTI-TRYPSIN DEFICIENCY).**
6. I would like to confirm the diagnosis by doing **Chest X-Ray** for **LOWER LOBE EMPHYSEMA.**
   Also I would like to do **CBC** to look for **Polycythemia** or **Neutrophillic Leukocytosis** for any **Infection** evidences.
   And also I would like to do **FEV1/FVC ratio** look for grading of **COPD** especially the **Full Spirometry** that will give the idea of grading and severity of lung disease.

CASE 5.
PICKWICKIAN SYNDROME /OBESITY HYPOVENTILATION SYNDROME (Obstructive Sleep Apnoea with Hypercapnia) with Cor-Pulmonale with Secondary Polycythaemia