

Respiratory :-

Bronchiectasis

Q. Chronic Smoker, 03 month history of rough sputum of copious foul smelling, small amount dotted blood, worst at early morning while lying in bed on left side, Past history of TB.

Diagnosis

D/Diagnosis

Management

Investigations

Causes

Clinical Features

Investigations :-

Chest X-ray - Ring like structures
Atelectasis
Bilate thick air-ways
Mucus plugging

CT-scan

Screening Test

Electron Microscopy

Sputum Culture for bacteria

Sweat Electrolytes

Faecal elastase

Blood glucose

Sweat Test.

management :

supportive Rx :-

Physiotherapy - Deep breathing

Avoid for acute infection

Nebulization

Medicine :-

Liprofloxacin oral

IV piperacillin - Tazobactam

Flouraquilon 10-14 days

Augmentin

Use acetylcystine (mucolytic agents)

surgical Rx :-

Excision

Resection of destroyed areas of lungs

Pastural Drainage

Pneumothorax

Define :-

Presence of air in pleural space due to trauma to lung / chest wall

Type :

Primary Pneumothorax - Blebs / Bullae lung Disease

Secondary Pneumothorax - Chronic obstructive Pul. disease

Cystic fibrosis

AIDS

Emphysema

Traumatic Gatorgenic - Trauma to thorax

Thoracic surgery / Biopsy

Chest wall injury

Clinical symptoms :

Chest pain

Dyspnea

Cyanosis

Tachycardia

Tachypnea

Hypotension

Breathlessness

↓ Vocal Resonance

Types:-

Close Pneumothorax:-

Plural cavity pressure is ↓
than atmosphere pressure.

Open Pneumothorax:-

Plural cavity pressure = AP

Tension Pneumothorax:-

Plural cavity > AP

Investigation:-

X-ray - * sharply defined edge of
CT-scan deflated lung

Rx :-

Supplemental Oxygen

Aspiration → Done during Thoracentesis to aspirate the air in pleural cavity

Tube Thoracostomy →

Chest tube is connected to water seal device or \bar{e} or \bar{e} with suction

Chest drain insertion

Tubal Drainage (intercostal)

Q. 30 yr. old obese patient dyspnea, O₂ satur
on lying flat, low grade fever, P-R 92/min
Bp 120/80 RR 20/min Temp. 99.6°C
Expansion on Rt, dull on percuss
chest

V.P → ↓

BS ↓

Diagnosis

causes

Investigation

Rx.

Types

what you observe on chest examination.

Dyspnea

Investigation:-

In case of TB - Tuberculin Test

In case of emphysema - WBC level

Radiographs — chest x-ray
Ultra-sound
CT-scan

Plural aspiration: Simple aspiration to check colour and texture of fluid

Biochemical analysis:
Transudate - Protein $< 30 \text{ g/l}$
Exudate - Protein $> 30 \text{ g/l}$

Gram staining

Biopsy.

Rx- Management :-

Exudative - Usually Drained

Transudate → Treat underlying cause

On case of infection - Tetracyclin, Amoxicillin

Bleomycin, Ceftriaxime

Plural-catheter insertion

Plural-cantesis.

On chest-Examination:-

Local bulging of chest-wall (Obese)

↓ Vocal fremitus

↓ Vocal resonance

Percussion - Stony Dull

↓ Breath sound

↓ Expansion

Q. 50 yr. Male Patient in Medical OPD who is chain smoker for 20 yrs has mod → severe dyspnea for last many months, complain of cough, non-symptoms especially expiratory → Pursed Lip, breathing

Diagnosis

Risk-Factors

Clinical Features

Investigations

Rx

What's Pursed-Lip breathing? Advantage.

Hypercapnia Finger-clubbing Bilirubin

Investigation :-

- ① - Lungs function Test - FEV₁/FVC Ratio ↓
PEFR ↓
- ② - Chest X-ray
- ③ - CT-scan
- ④ - Arterial blood gases - Hypoxia, Hypercapnia
- ⑤ - α₁-anti-trypsin level
- ⑥ - ECG
- ⑦ - Hemoglobin level

Management :-

Conservative Rx :-

- ↓ Exposure to noxious gases
- ↓ smoking, Tobacco

Medicine :-

- Bronchodilator Tiotropium
- Oral glucocorticosteroid
Corticosteroid
- Phosphodiesterase Type 4 inhibitors (Roflumilast)

Supportive Rx :-

Pulmonary Rehabilitation

Oxygen Therapy

Ventilation

Surgical Rx :-

Bullectomy

LVRS (Lungs Volume Reduction surgery)

Lung Transplant

Complication :-

Respiratory Failure

Cor-pulmonale

" Pursed-lip-Breathing "

4-5 times a day

Relax neck and shoulder Muscle

Breathe in slowly by Nose (Normal breath) For 02 count

Keep Mouth closed

Purse your-lip gently

Breathe out slowly and Gently by your pursed Lips

while counting to yourself.

Didn't force the air out

Breath Slowly.

Advantage:

Relieve SOB

Improve ventilation

Relieve trap air in lungs

↓ Breathing Rate.

- Rx
- ① Airway
 - ② Breathing
 - ③ Circulation
 - ④ Disability
 - ⑤ Exposure
 - ⑥ maintain adequate oxygen delivery
 - ⑦ mechanical ventilation
 - ⑧ Rx of cause
 - Correct Hypotension → ventilation, NPPV
 - ↓ preload → Diuretics, Nitroglycerin
 - Hypoxemia → ↓ afterload → Morphine, nitro prusside
 - Hypercapnia → bronchodilator

Pneumothorax

Steroid
B2 antagonist
antibiotic

Presence of air in pleural space

due to trauma to lung / chest wall

spontaneous → Rupture of pleural blebs

iatrogenic inj occur while during

surgery (thoracic, cardiac, chest wall)

Type

Etiology

Primary pneumothorax

blebs / bullae lung disease

secondary

Chronic obstructive pul. disease

cystic fibrosis, AIDS

emphysema

Traumatic Iatrogenic

Trauma to Thorax

thoracic surgery / biopsy

chest wall injury