

VA #

## BRONCHIECTASIS:

⇒ It is characterized by irreversible, abnormal dilation of bronchi and bronchioles. It is this permanent dilation is due to the destruction of smooth muscle & elastic tissue of bronchi and bronchioles by inflammation (chronic necrotizing infection)

### PATHOGENESIS:

Bronchiectasis may be either focal or diffuse (generalized) divided into 2 types

Non obstructive  
(Post-inflammatory)

Obstructive  
Bronchiectasis

Non obstructive

usually of diffuse type. Result of chronic necrotizing pneumonia.

Bacteria: It occurs as a complication of infection by:  
Staphylococcus, H.T, Klebsiella sp.

Virus: Adenovirus, Influenza virus, HIV

Fung: Aspergillus sp.

Focal type develop as a complication of mostly of non obstructive nature

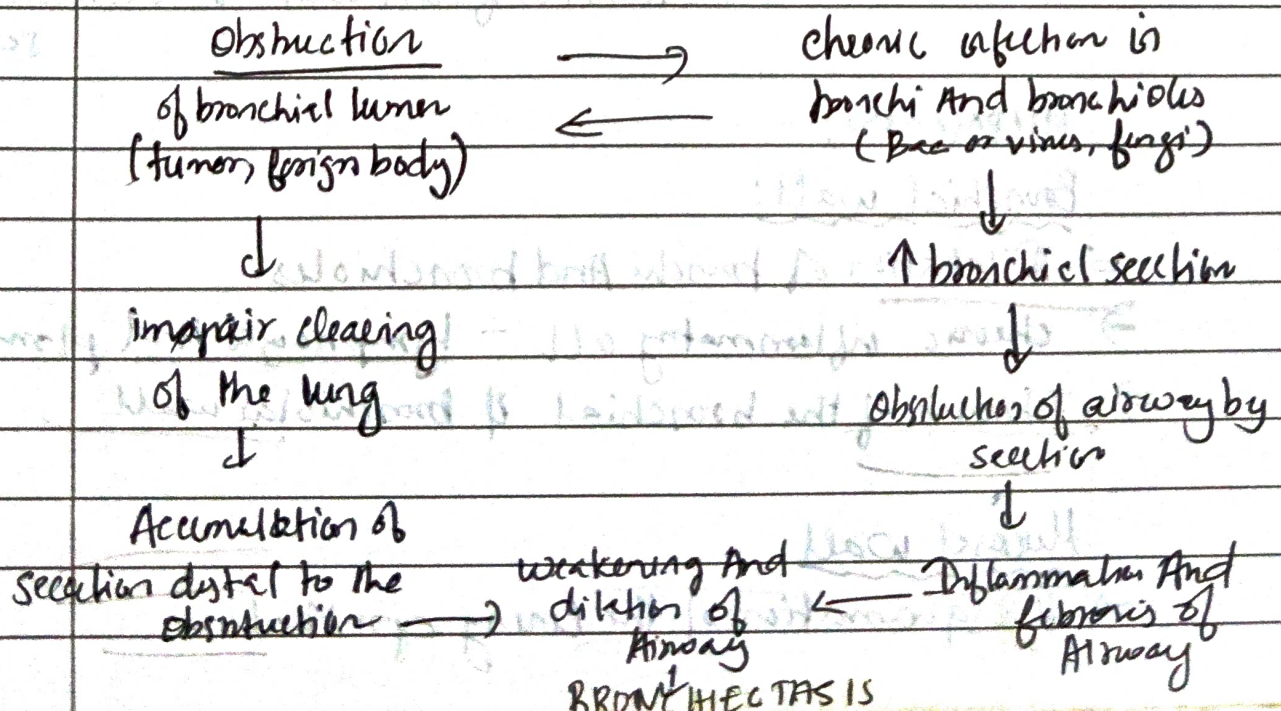
## Obstructive Bronchiectasis:

- localized to the obstructed segment of the lung
- Airway obstruction: lumen obstruction caused by tumor, foreign body, Aspiration,
- Congenital or hereditary conditions: (Cystic fibrosis)

MCQ

### Other Genetic factors - 3 syndrome:

- 1) Kartagener or immotile cilia syndrome - ARD, with lack of ciliary function → lead to Retention of excretion infection  
consist of, dextrocardia, sinusitis, bronchiectasis, male infertility.
- 2) Young's syndrome:
- 3) Sturges syndrome



## MORPHOLOGY (Ried subclassification)

A → According to the shape of bronchial dilation.

- 1) Cylindrical
- 2) Sac-like → end blindly in dilated sac.
- 3) Funiform
- 4) Varicose bronchiectasis: irregular dilation.

B → According to the extent of involvement

Generalized

Localized

- Generalized: usually bilateral (lower lobe) (get the more common)
- Localized → Restricted to single segment of the lung.

**GROSS:** Dilatation of bronchi and bronchioles

Extent of dilatation → 4 times the size of normal lumen

Cat-scratch: The wall is thickened by fibrosis

The lumen is filled with thick mucopurulent secretions.

## MICROSCOPY:

Bronchial wall:

⇒ Dilatation of bronchi and bronchioles

→ chronic inflammatory cell - lymphocyte and plasma cell

⇒ Fibrosis of the bronchial & bronchiolar wall

Mucosal wall

⇒ Desquamation of the lining epithelium

1975

- Lung columnar cells show metaplasia of  
metaplasia.

C.F

- productive cough Relation to posture
- ⇒ copious foul smelling sputum
- ⇒ Dyspnea, wheezing, cyanosis

Complication of Bronchiectasis:

- Lung Abscess → Empyema → Angiodysplasia
- Pneumonia → Hemoptysis → Aspergilloma

Healthcare-associated pneumonia

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