VQ #

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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 diffus (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: Staphylo, H.I, klebsiella sp.

Virus :- Adenovirus, Influenza virus, HIV

Fung: Aspergillus sp.

Focal type develop as a complication of mostly of neoplasia

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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 secretion → infection
   consist of, dextrocardia, sinusitis, bronchiectasis, male infertility.
2) Young's syndrome:
3) Sturgess syndrome

Obstruction of bronchial lumen (tumor, foreign body) ⟷ chronic infection in bronchi And bronchioles (Bac or virus, fungi)

↓ impair clearing of the lung

↓ Accumulation of secretion distal to the obstruction → weakening And dilation of Airway ← Inflammation And fibrosis of Airway

↑ bronchial secretion

↓ Obstruction of airway by secretion

↓

BRONCHIECTASIS

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MORPHOLOGY: (Reid subclassification)

A ⇒ According to the shape of bronchial dilation.

1) cylindrical
2) saccular → end blindly in dilated sac
3) Fusiform
4) Varicose bronchiectasis: Irregular dilation.

B ⇒ Acc to the extent of involvement — Generalized / Localized

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

GROSS: Dilatation of bronchi And bronchioles

Extent of dilatation → 4 time the size of normal lumen

Cut surface: The wall is thickened by fibrosis

The lumen is filled with thick mucopurulent secretion.

MICROSCOPY:

Bronchial wall:

⇒ Dilatation of bronchi And bronchioles

⇒ chronic inflammatory cell - lymphocyte And plasmacell

⇒ Fibrosis of the bronchial & bronchiolar wall

Mucosal Wall

⇒ Desquamation of the lining epithelium

- Lung columnar cell show pseudostratification of metaplasia.

C.F

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

Complication of Bronchiectasis:

→ Lung Abscess → Empyema → Amyloidosis
→ Pneumonia → Hemoptysis → Aspergilloma