

## XVI. Diseases of the Respiratory System

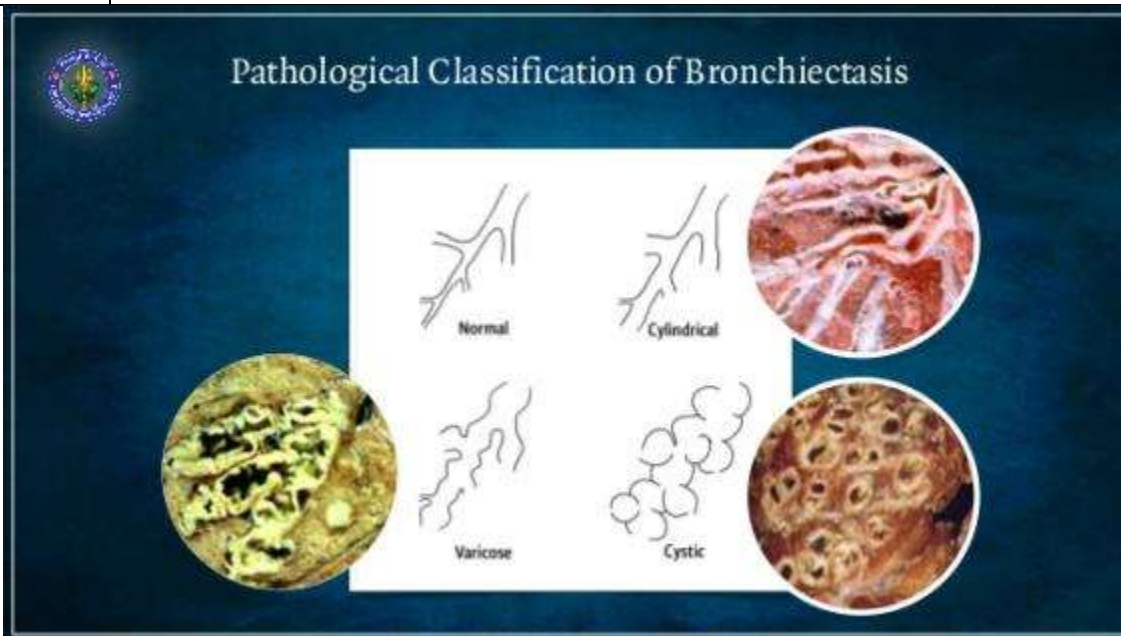
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### 3-Bronchiectasis:

*Dilatation of the bronchial tubes which occurs in association with various diseases of lung and as a consequence upon antecedent pathological lesions.*

#### Varieties:

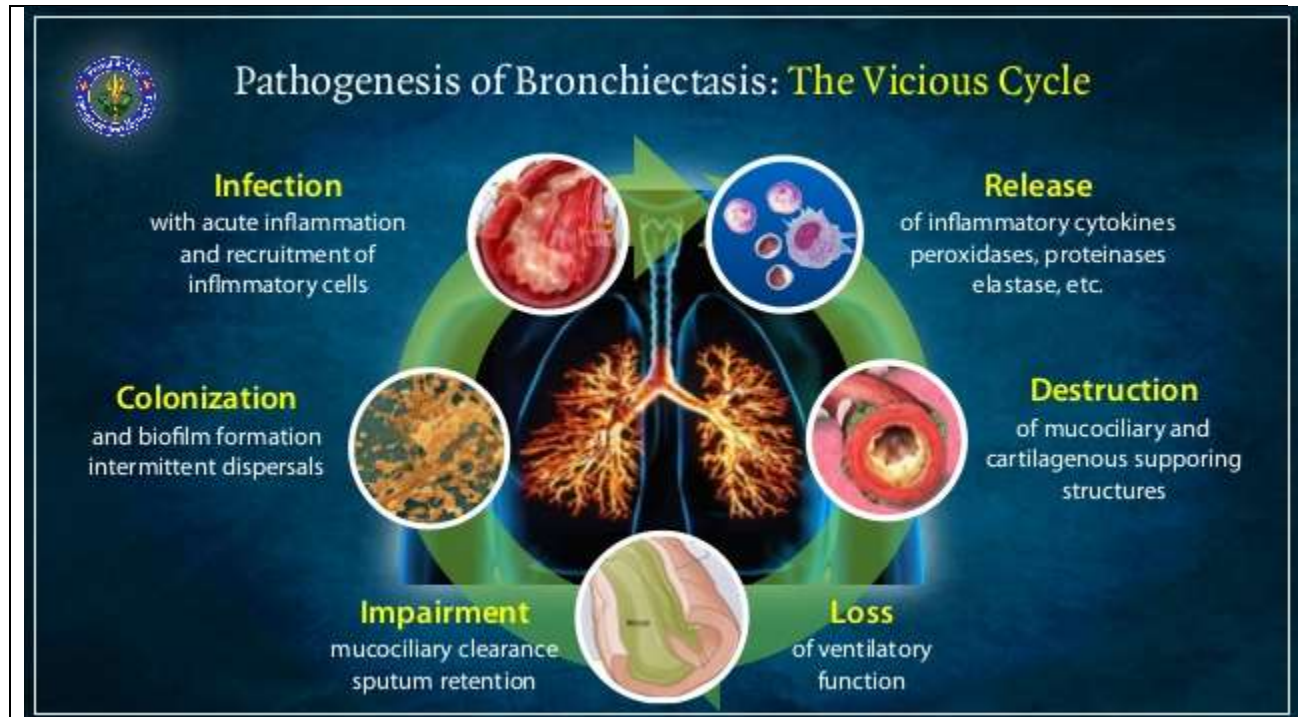
1. **Cylindrical** (diffuse or digitate); common.
2. **Saccular** (localized).
3. **Fusifiform** (glove-finger).
4. **Moniliform**.



#### ***Aetiology and pathogenesis:***

1. **Infection theory:**
  - *Inflammatory factor.*
  - *Mechanical factor.*
2. **Atelectasis theory.**
3. **Other factors.**





**Sequence of events:**

- Infection** → inflammation of bronchial walls
- destruction of musculo-elastic tissue → **fibrosis**
- **weakening and dilatation of that part of bronchial wall**
- accumulation of secretions
- **action of pathogenic and putrefactive micro-organisms**
- more destruction, weakening and obstruction
- **more infection due to accumulation of secretion and stagnation**
- Infection → weakening → dilatation.

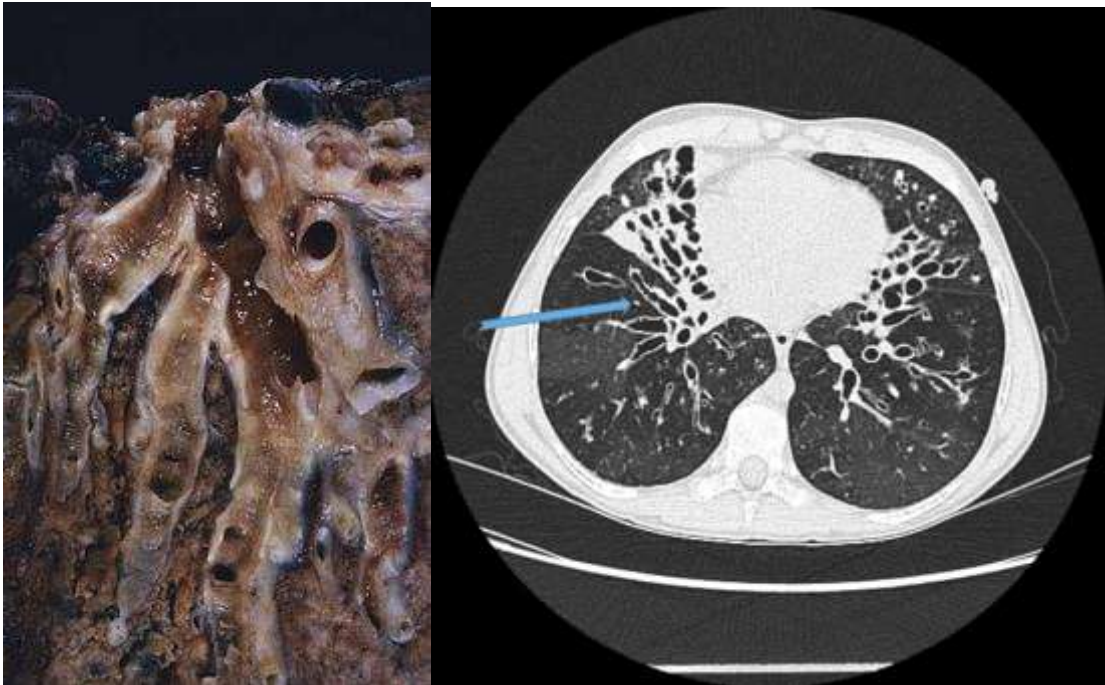
### N.E.A.

- The appearance differs in different areas of lung, or may be the same.
- The early stages are not commonly seen at autopsy.
- **The long-standing cases with chronic history**, infection and marked fibrosis, show cavities in lung in association with dilated tubes which may be thin or thick-walled and vascular (a source of bleeding) or thick, fibrous and non-collapsible.
- **Uniform cylindrical dilatations are usually in lower lobes**, mostly bilateral.
- The medium-sized bronchi, throughout a considerable part of lung, are widened.
- The dilatation may be regular but may show a diffuse irregularity.
- **The cavities are filled with pus.**
- The mucosa is hypertrophied leading to highly vascular papillary masses.
- Later, it is atrophic.
- **Saccular dilatations** may be found in any part of bronchial tree and not uncommonly in upper lobes especially in association with tuberculosis and silicosis.
- The dilated tubes may be in the form of large irregular cavities which have usually a definite lining membrane which is often congested and covered with purulent exudate.

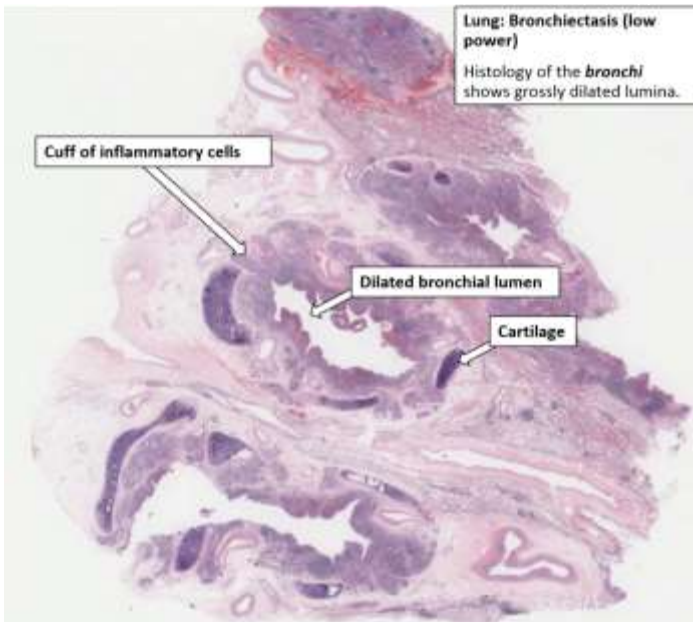


**Causes of death in bronchiectasis (according to frequency) are:**

- 1. Bronchopneumonia.**
- 2. Exhaustion and asphyxia.**
- 3. Brain abscess.**
- 4. Haemorrhage and hemoptysis.**
- 5. Heart failure (right side).**
- 6. Intercurrent disease.**
- 7. Amyloidosis.**
- 8. Carcinoma (after metaplasia).**

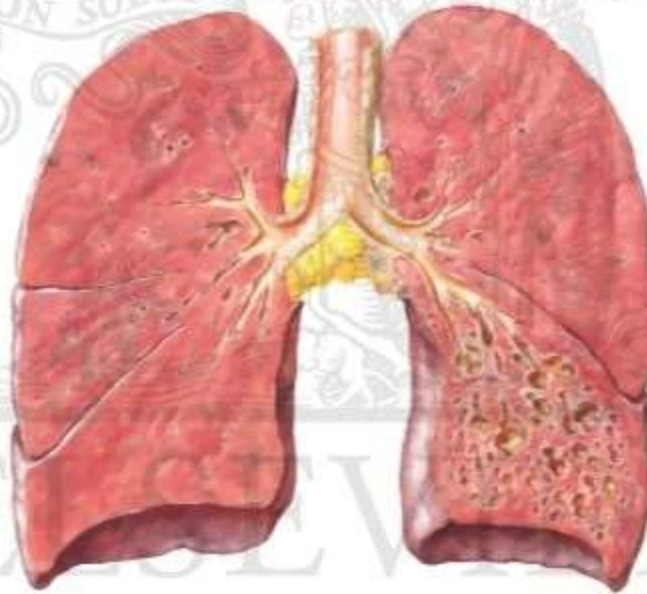
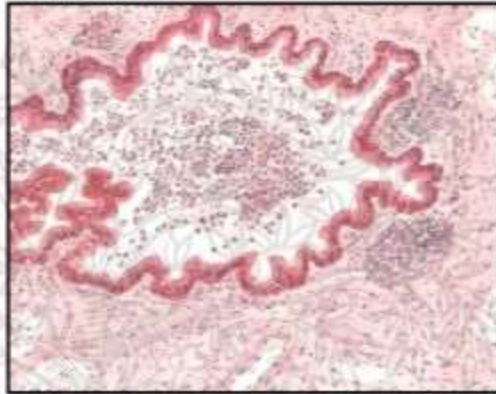






#### LOCALIZED BRONCHIECTASIS

Section through dilated bronchus. Epithelium is hyperplastic and lumen contains cellular exudate. Peribronchial area shows replacement by loose connective tissue with many lymphocytes, both disseminated and aggregated into follicles



Focal bronchiectasis. Saccular dilations of bronchi, confined to left lower lobe. Such limited pathology may be amenable to surgery

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