# XVI. Diseases of the Respiratory System

**168** 

Usually both lungs are affected in bronchiectasis but chiefly the lower lobes. **N.B. I** 

- The dilated bronchi (and bronchioles) may be cylindrical or less often saccular.
- The cavities are usually filled with mucopurulent material and they may appear hypertrophied (with vascular papillary mucosa) or atrophied (with thin lining).

### **Complications are**

- 1. Lung abscess,
- 2. Pyopneumothorax,
- 3. Emphysema,
- 4. Diffuse fibrosis,
- 5. Right-side heart failure,
- 6. Septic thrombosis,
- 7. Brain abscess,
- 8. Metaplastic changes in lining of the bronchi and occasional malignant change (carcinomatous formation).

<b>N.B.</b> 2	Include:	
Diseases of the bronchi:	<ol> <li>Bronchitis.</li> <li>Obstruction.</li> <li>Bronchiectasis.</li> <li>Bronchial asthma.</li> <li>Tumours.</li> </ol>	

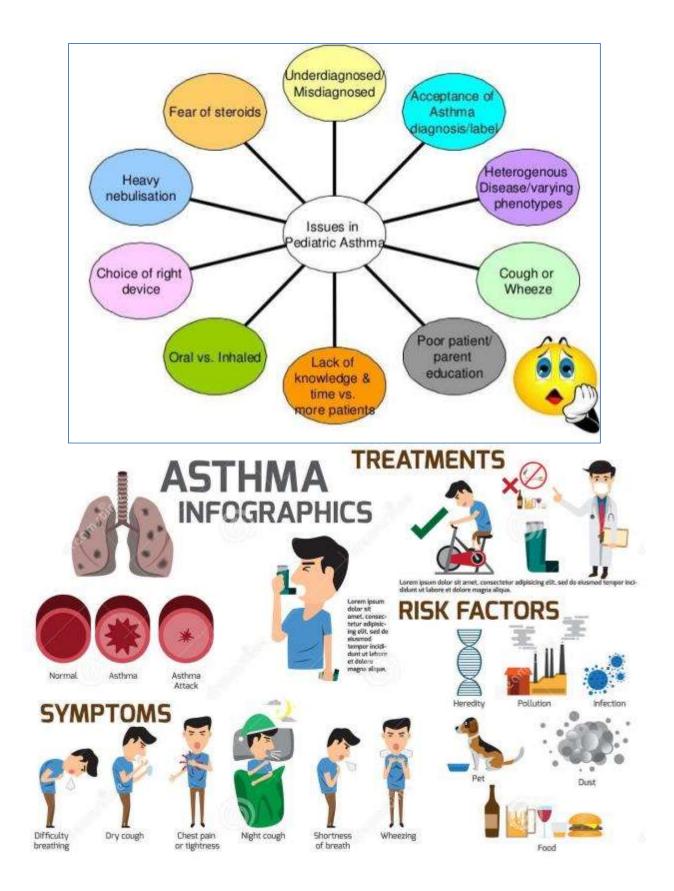
## **1- Inflammation:**

## Inflammatory changes in bronchi may affect:

- 1. The larger bronchi and medium-sized tubes.
- 2. The minute divisions or bronchial tree.
- Here, it is gradually associated with accompanying disease of lung-parenchyma.
- In bronchitis (pure form) no affection of the alveoli, hence normal breathing i.e., vesicular with some prolongation of expiration.

## (a) Acute bronchitis:

- Acute inflammation of large and medium-sized bronchi as well as trachea.
- The mucous membrane of trachea and bronchi is
  - o Red,
  - Hyperaemic,
  - Swollen and edematous.
- Lumen of bronchus is filled with pus.
- The wall at first is dry then covered with a tenacious exudate (mucoid or purulent).
- The exudate is at first viscid, tough and translucent (mucin), later on, it is less tough, more opaque and is yellow (pus cells).



(b)Chronic bronchitis:		
• On top of (and follows) repeated	ed acute attacks.	
	nmediate cause or it is a secondary manifestation to	
At first:		
• The mucous membrane is swol	llen and hypertrophic.	
• It shows venous congestion, an	d a brownish-red, or slaty-blue pigmentation.	
• Lumen of bronchus is sometime lost.	es dilated, and its normal corrugated appearance is	
<ul><li>It is bathed with mucus or pus</li></ul>		
Later on:		
Mucous membrane becomes th	inned and atrophied.	
	ework of bronchus become more apparent leading	
	resent between the cartilage-rings.	
(c) Chronic fibrinous bronchitis		
	ghing, severe dyspnea, passage of tough fibrinous	
	ree expectorated in coughed material, followed by	
(d) Tuberculosis of the bronchi:		
• Lesion is in the submucosa leave	ding to ulcers.	
2- Stenosis and obstruction of bronchi:		
This may be due to:		
Chronic Obstructive Pulmonary Disease Trachea		
Pipt Lung Smooth Muscle Smooth Muscle Left Lung Alveolar Sao Heart Alveolar Damage In Emphysema		
Basement Membane Bronchial Wall	Thickened Smooth Muscle Thickened Basement Membrane Thickened Bronchial Wait	

Cause	s from outside the wall :
1.	Tumours of the mediastinum.
2.	Cancer of oesophagus.
3.	Metastasis in the mediastinal lymph nodes.
4.	Aneurism of aorta.
5.	Pericardial effusion.
6.	Enlarged tuberculous lymph nodes.
Cause	s in the wall
1.	Cicatrization following removal of a foreign body.
2.	Muscular spasm.
3.	Tumours of bronchial wall.
4.	Tuberculous infiltration.
5.	Syphilis and gumma.
6.	Pneumoconiosis and other forms of chronic fibrotic lesions.
Cause	s in the lumen
1.	Foreign body (meat, bones, fruits, peas etc.)
2.	Plugs of tenacious mucus or fibrinous material
Ζ.	Flugs of tenacious mucus of normous material

