

MYCOSIS



Disease caused by Fungal Infection

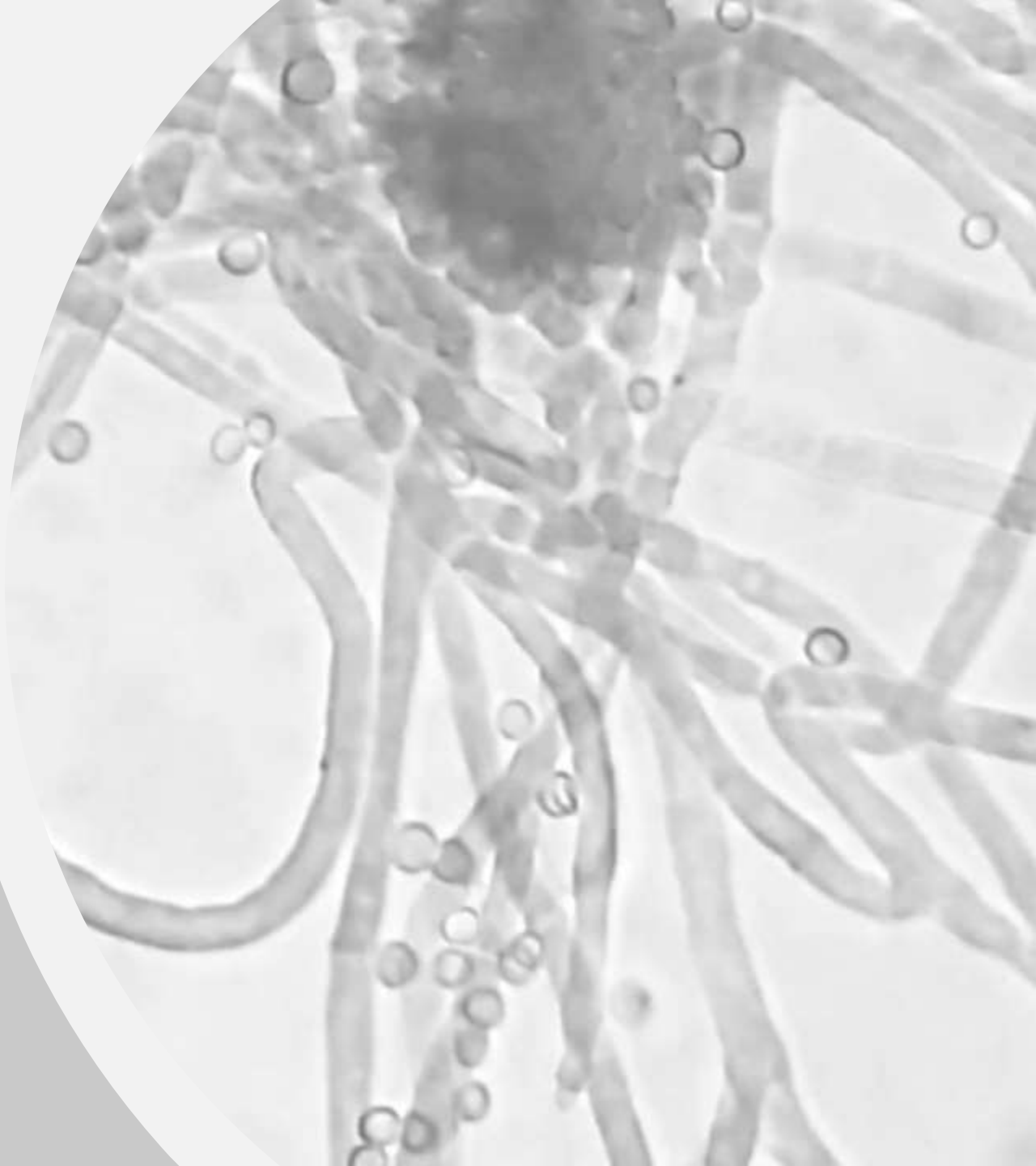
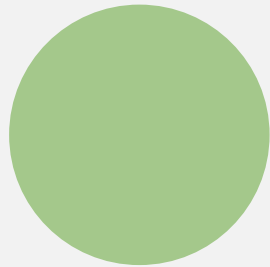
Aspergillus



- Asthma
- Allergic bronchopulmonary aspergillosis (ABPA)
- Aspergilloma (Mycetoma)
- Extrinsic Allergic Alveolitis (Hypersensitivity pneumonitis)
- Invasive aspergillosis

Allergic Broncho-Pulmonary Aspergillosis (ABPA)

**Asthmatic
Pulmonary
Eosinophilia**



- **Type I & III** hypersensitivity reaction to germinating fungal spores of ***Aspergillus fumigatus***
- Complicate the course of *asthma* (1-5%) and *cystic fibrosis* (2-25%)
- Variety of human leucocyte antigens (HLAs) convey both an increased and a decreased risk of developing the condition

Early phases

Fever, Breathlessness, Cough productive of bronchial casts & worsening of *asthmatic* symptoms

Initially,
bronchoconstriction

Permanent Damage

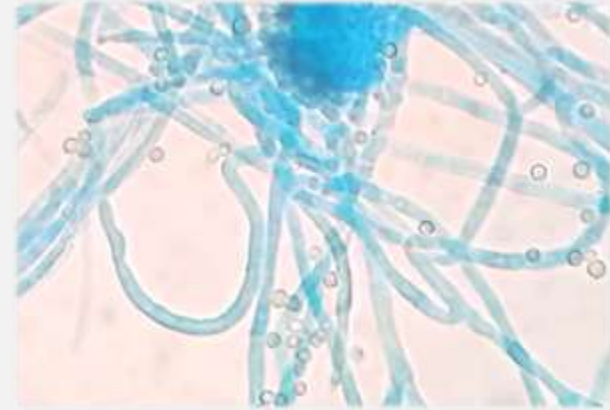
Bronchiectasis

If bronchiectasis develops, the symptoms & complications of that disease often overshadow those of asthma

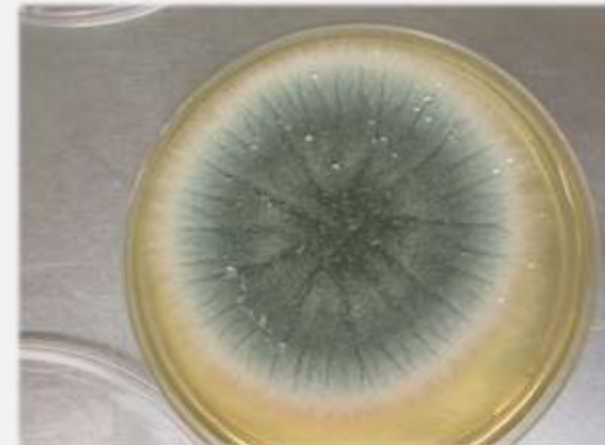
- Wheeze
- Cough
- Sputum (plugs of mucus containing fungal hyphae)
- Dyspnoea
- Recurrent pneumonia

- i. Asthma
- ii. *Proximal* bronchiectasis
- iii. *Positive* skin test to an extract of *Aspergillus fumigatus*
- iv. *Elevated* total serum IgE > 1000 ng/mL
- v. *Elevated* *A. fumigatus*-specific IgE or IgG
- vi. Peripheral blood *eosinophilia* > 0.5×10^9 /L
- vii. Presence *or* history of chest X-ray abnormalities
- viii. Fungal hyphae of *A. fumigatus* on *microscopic examination* of sputum

- **CBC:** Eosinophilia
- **Sputum:** Aspergillus in sputum
- **Skin Test:** positive Aspergillus skin test
- Total and Aspergillus-specific **IgE**
- **Serum precipitins** - Positive



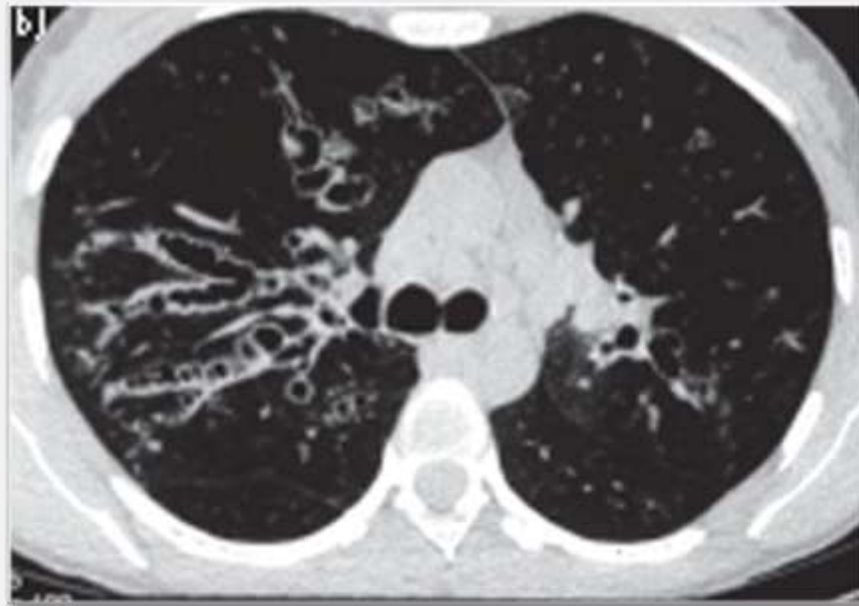
Microscopy



Growth on Culture

Radiology

- **CXR** - Transient segmental collapse or consolidation, Bronchiectasis
- **HRCt scan chest** - Proximal bronchiectasis

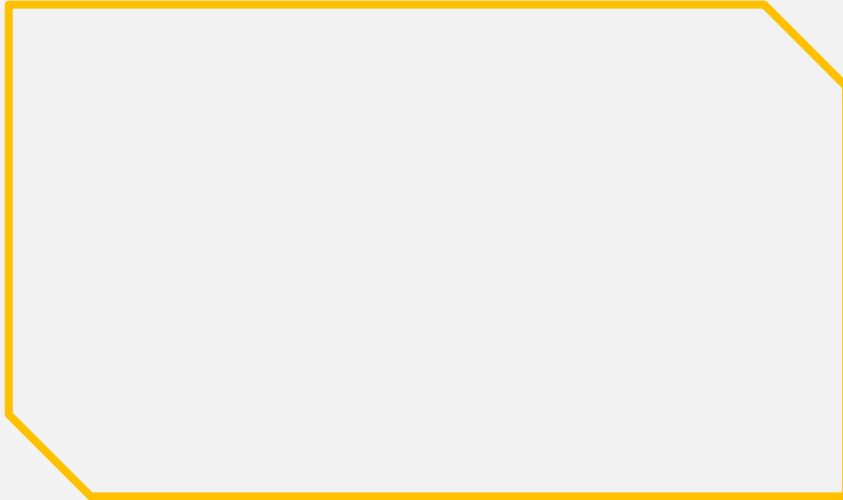


- Asthma
- Bronchiectasis (other causes)
- Invasive Aspergillosis
- Churg-Strauss Syndrome
- Chronic obstructive pulmonary disease

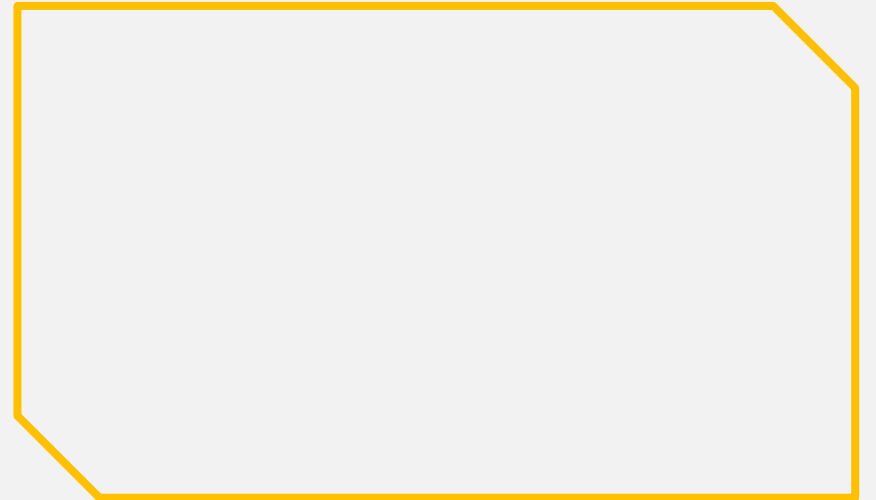
- Hemoptysis
- Severe bronchiectasis
- Pulmonary fibrosis
- Atelectasis due to mucus plugs

- **Prednisolone** 30–40mg/24h PO for acute attacks; maintenance dose 5–10mg/d.
- **Itraconazole** can be used in combination with corticosteroids.
- **Bronchodilators** for asthma.
- Anti IgE monoclonal antibodies
- **Bronchoscopic aspiration** of mucus plugs, if needed

SUBSCRIBE



Bronchiectasis



Breath Sounds