

FACTORS PREDISPOSING TO BRONCHIECTASIS

| Category | Examples and Comments |
|------------------------------------|---|
| Infections | |
| Bacterial | <i>Bordetella pertussis</i> <i>Haemophilus influenzae</i> <i>Klebsiella sp</i> <i>Moraxella catarrhalis</i> <i>Mycoplasma pneumoniae</i> <i>Pseudomonas aeruginosa</i> <i>Staphylococcus aureus</i> |
| Fungal | <i>Aspergillus sp</i> <i>Histoplasma capsulatum</i> |
| Mycobacterial | Tuberculous and nontuberculous mycobacteria |
| Viral | Adenovirus Herpes simplex virus Influenza Measles Respiratory syncytial virus |
| Congenital disorders | |
| α_1 -Antitrypsin deficiency | If severe, can cause bronchiectasis |
| Ciliary defects | Can cause bronchiectasis, sinusitis, otitis media, male infertility, and 50% of patients with ciliary dyskinesia have situs inversus; Kartagener's syndrome = clinical triad of dextrocardia, sinus disease, situs inversus |
| Cystic fibrosis | Causes viscous secretions due to defect in Na and Cl transport Often complicated by <i>P. aeruginosa</i> or <i>S. aureus</i> infection |
| Immunodeficiencies | |
| Primary | Chronic granulomatous disease Complement deficiencies Hypogammaglobulinemia, including IgG subclass deficiencies (IgG ₂ , IgG ₄) |
| Secondary | HIV infection Immunosuppressive drugs |
| Airway obstruction | |
| Cancer | Endobronchial lesion |
| Extrinsic compression | Due to tumor mass or lymphadenopathy |
| Foreign body | Aspirated or intrinsic (eg, broncholith) |
| Mucoid impaction | Allergic bronchopulmonary aspergillosis |
| Postoperative | After lobar resection, due to kinking or twisting of remaining lobes |

FACTORS PREDISPOSING TO BRONCHIECTASIS—Continued

| Category | Examples and Comments |
|---|--|
| Connective tissue and systemic disorders | |
| RA | Commonly causes bronchiectasis (frequently subclinical), more often in men and in patients with long-standing RA |
| Sjögren's syndrome | Bronchiectasis possibly due to increased viscosity of bronchial mucous, which leads to obstruction, poor clearance, and chronic infection |
| SLE | Bronchiectasis in up to 20% of patients via unclear mechanisms |
| Inflammatory bowel disease | Bronchopulmonary complications occurring after onset of inflammatory bowel disease in up to 85% and before onset in 10 to 15% Bronchiectasis more common in ulcerative colitis but can occur in Crohn's disease |
| Relapsing polychondritis | |
| Congenital structural defects | |
| Lymphatic | Yellow nail syndrome |
| Tracheobronchial | Cartilage deficiency (Williams-Campbell syndrome) Tracheobronchomegaly (Meunier-Kuhn syndrome) |
| Vascular | Pulmonary sequestration |
| Toxic inhalation | |
| Ammonia | Direct airway damage altering structure and function |
| Chlorine | |
| Nitrogen dioxide | |
| Other | |
| Transplantation | May be secondary to frequent infection due to immunosuppression |

Data from Barker, AF: Bronchiectasis. *The New England Journal of Medicine* 346:1383–1393, 2002.