

TRACHEOBRONCHOMALACIA

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DEFINITION

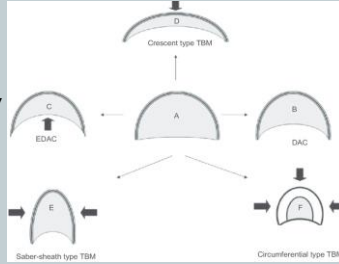
- Tracheobronchomalacia (TBM) arises from weakness of the airway walls and/or supporting cartilage
- Can affect isolated segment, less common = bronchi alone
- Severe TBM can progress to diffuse form

CLASSIFICATION

doi:10.2147/IMCRJ.S69474

ECAC = expiratory central airway collapse. 2 entities:

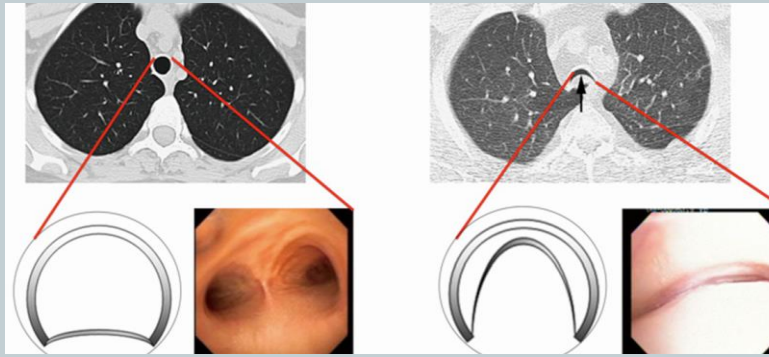
1. **EDAC** (excessive dynamic airway collapse) = invagination of posterior membrane
2. **TBM** = weakness of anterior cartilage ± invagination of posterior membrane



INVESTIGATIONS

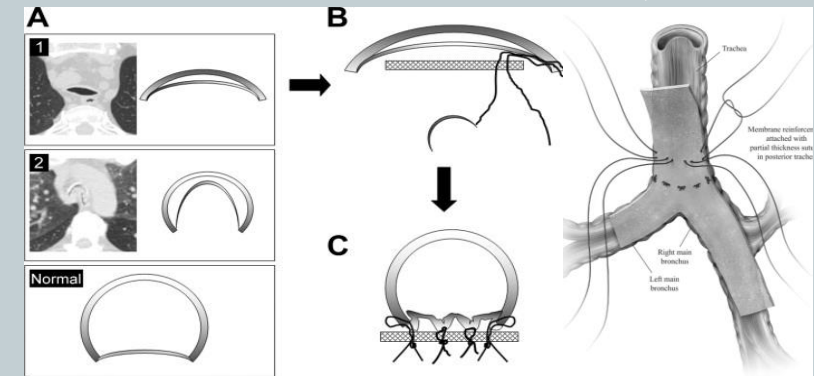
- Diagnosis a challenge as many have concomitant respiratory conditions; asthma or COPD with overlapping symptoms
- Sometimes even misdiagnosed asthma, COPD or other causes of chronic cough
- Mainstay of diagnosis is dynamic bronchoscopy, inspiration/expiration phase CT, less so PFTs

doi: 10.21037/itd.2017.01.13



Tracheobronchoplasty

doi:10.1016/j.athoracsur.2011.01.009



Stabilisation of the membranous wall of the interthoracic oesophagus, mainstem bronchi and bronchus intermedius using polypropylene mesh

Beth Israel Deaconess Medical Centre Institutional Protocol for evaluation of patients with severe TBM

doi: 10.21037/itd.2017.01.13

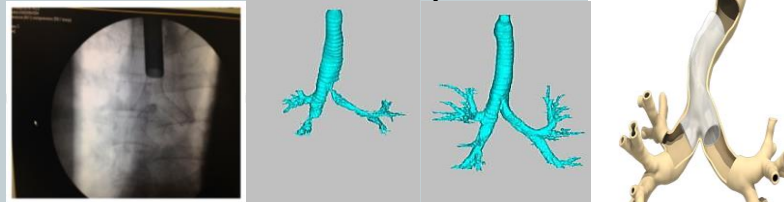
INCIDENCE & AETIOLOGY

- Incidence = unknown, ↑ awareness
- Aetiology = unknown
- Usually in those with asthma, bronchitis & emphysema
- Mostly acquired, some congenital
- Acquired forms include inflammatory & compressive
- GORD, steroids, BMI +, smoking

Inflammatory	Compressive
Toxins	Goitre
Relapsing polychondritis	Vascular

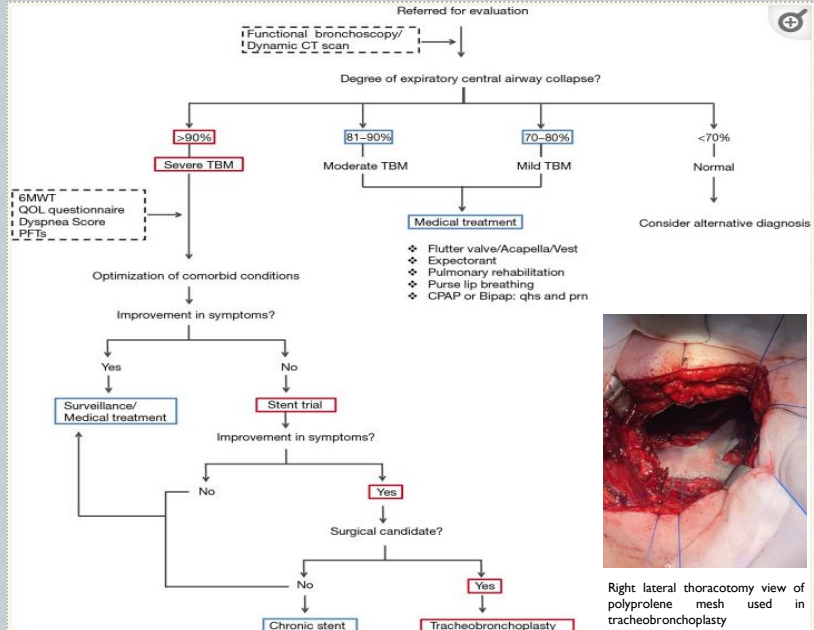
MANAGEMENT

- Individualised approach
 - Optimise co-morbidities
 - Type and extent of TBM
- Medical management
 - Bronchodilators
 - Secretion clearance
 - CPAP
- Surgical management
 - If not sure, trial of stent
 - Tracheobronchoplasty



SIGNS & SYMPTOMS

Signs	Symptoms
Tachypnea	Barking Cough
Hypoxia	Dyspnoea & Orthopnoea
	Sputum retention



Right lateral thoracotomy view of polypropylene mesh used in tracheobronchoplasty