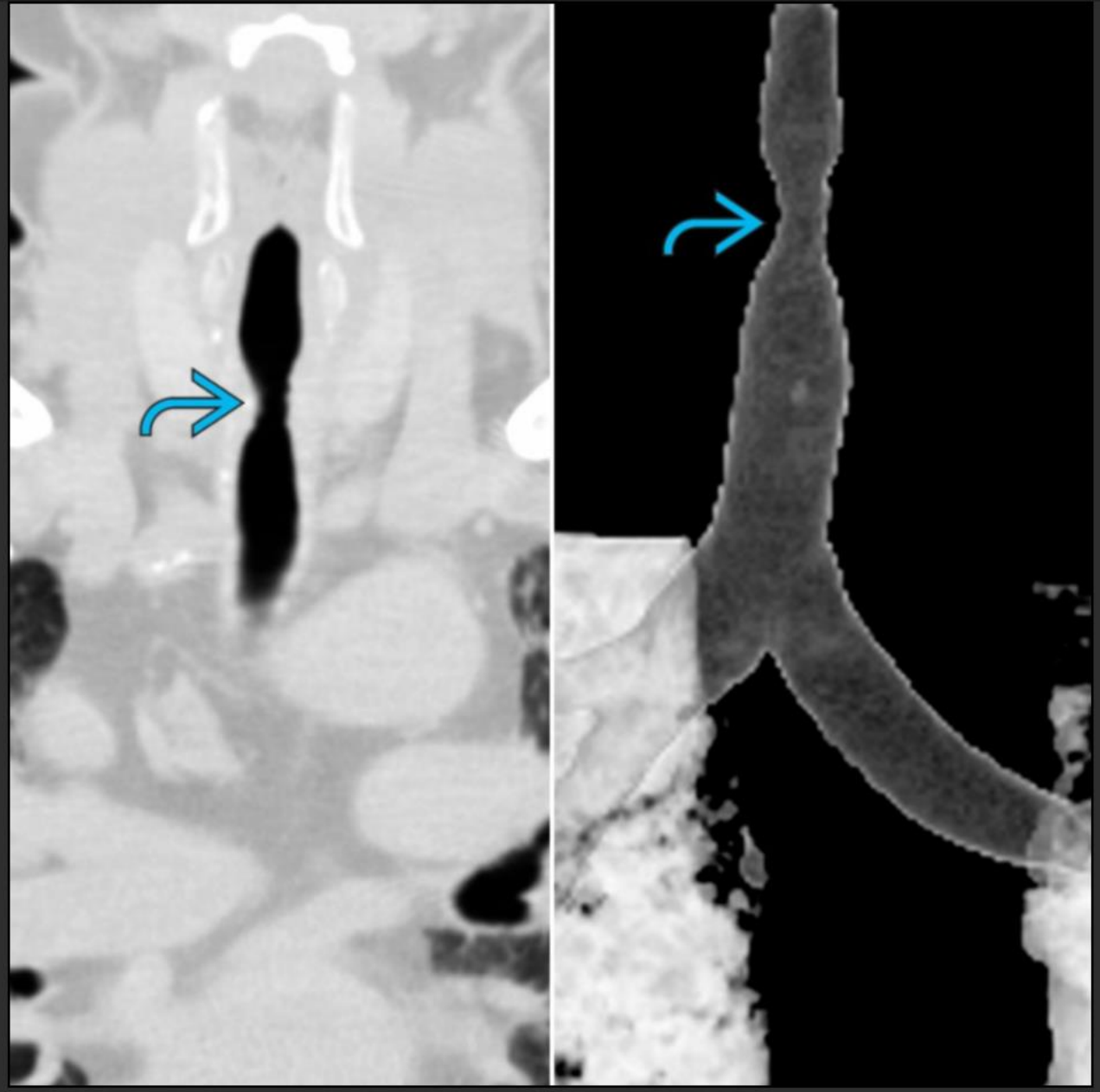
Tracheal Stenosis

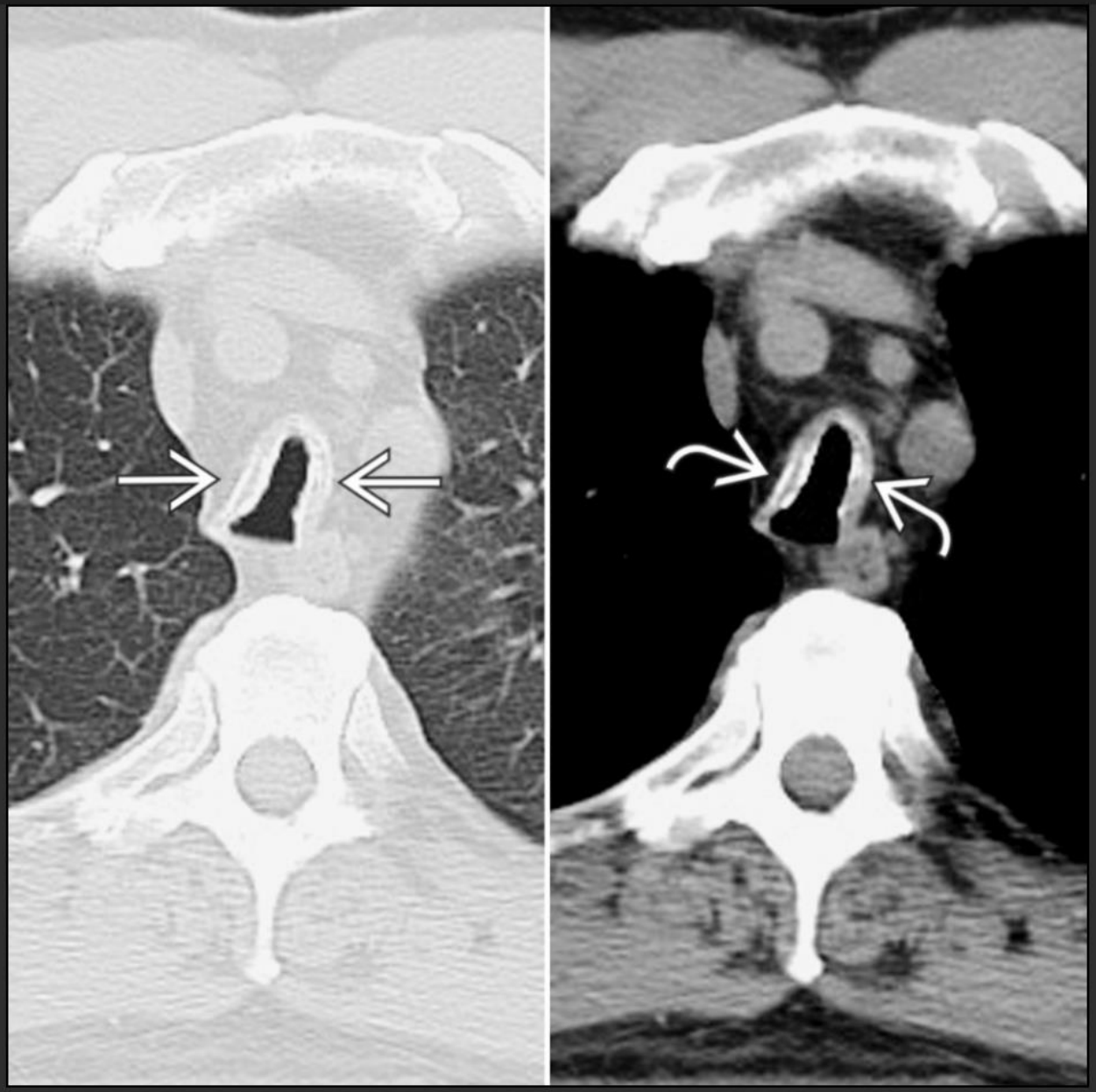
- Usually acquired following intubation or tracheostomy. It can also arise as part of the spectrum of tracheobronchial stenosis.
- The stenosis is typically 1.5-2.5 cm in length. In patients with chronic stricture, tracheomalacia may result from weakness of tracheal cartilage and can be a cause of dyspnea

Staging, Grading, & Classification

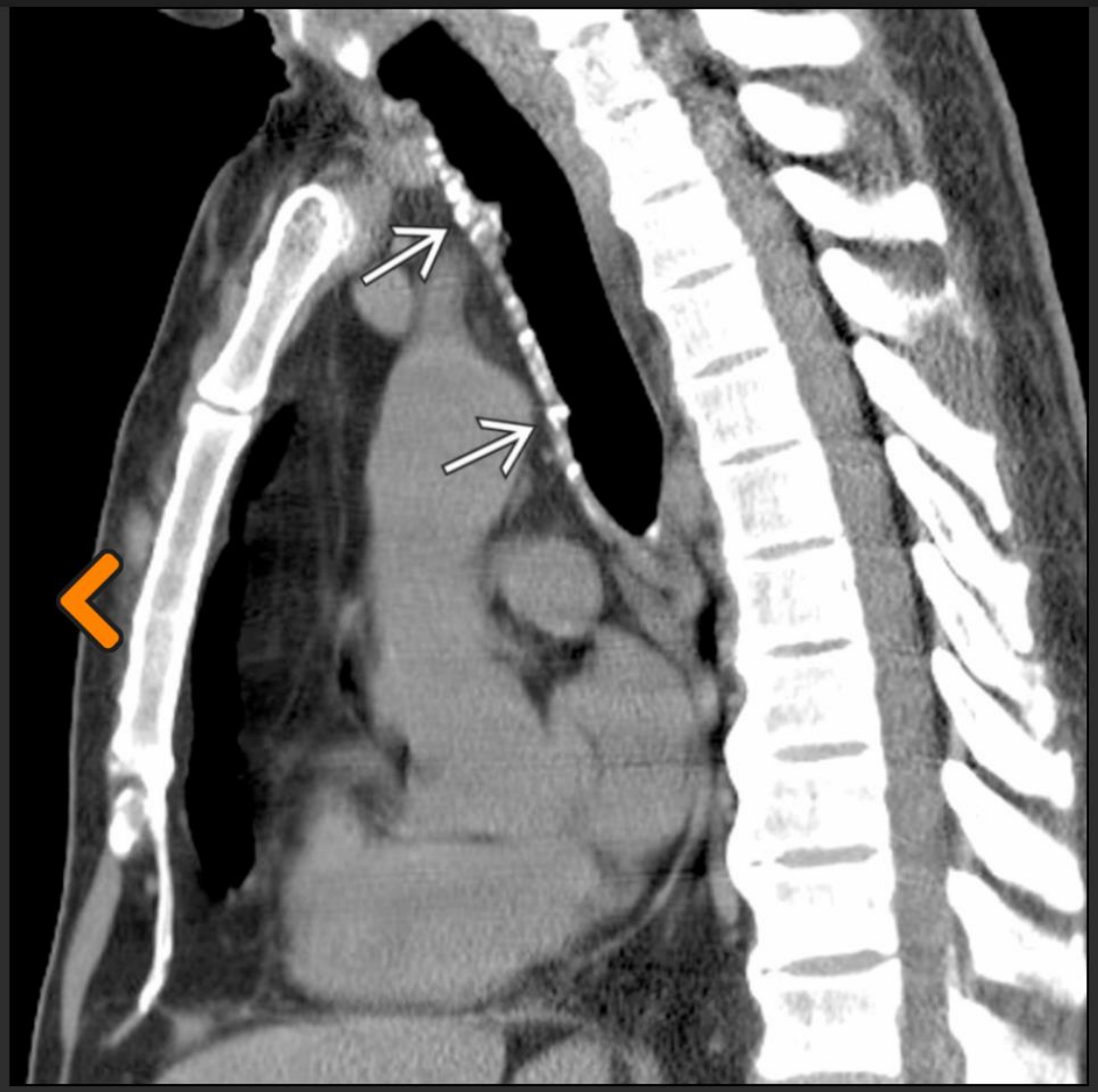
- Trachea divided into upper, mid, and lower 1/3
- Degree of cross-sectional narrowing reported
  - ≤ 25%, 26-50%, 51-75%, 76-90%, > 90%
- Transition (abrupt or tapered) clinically relevant



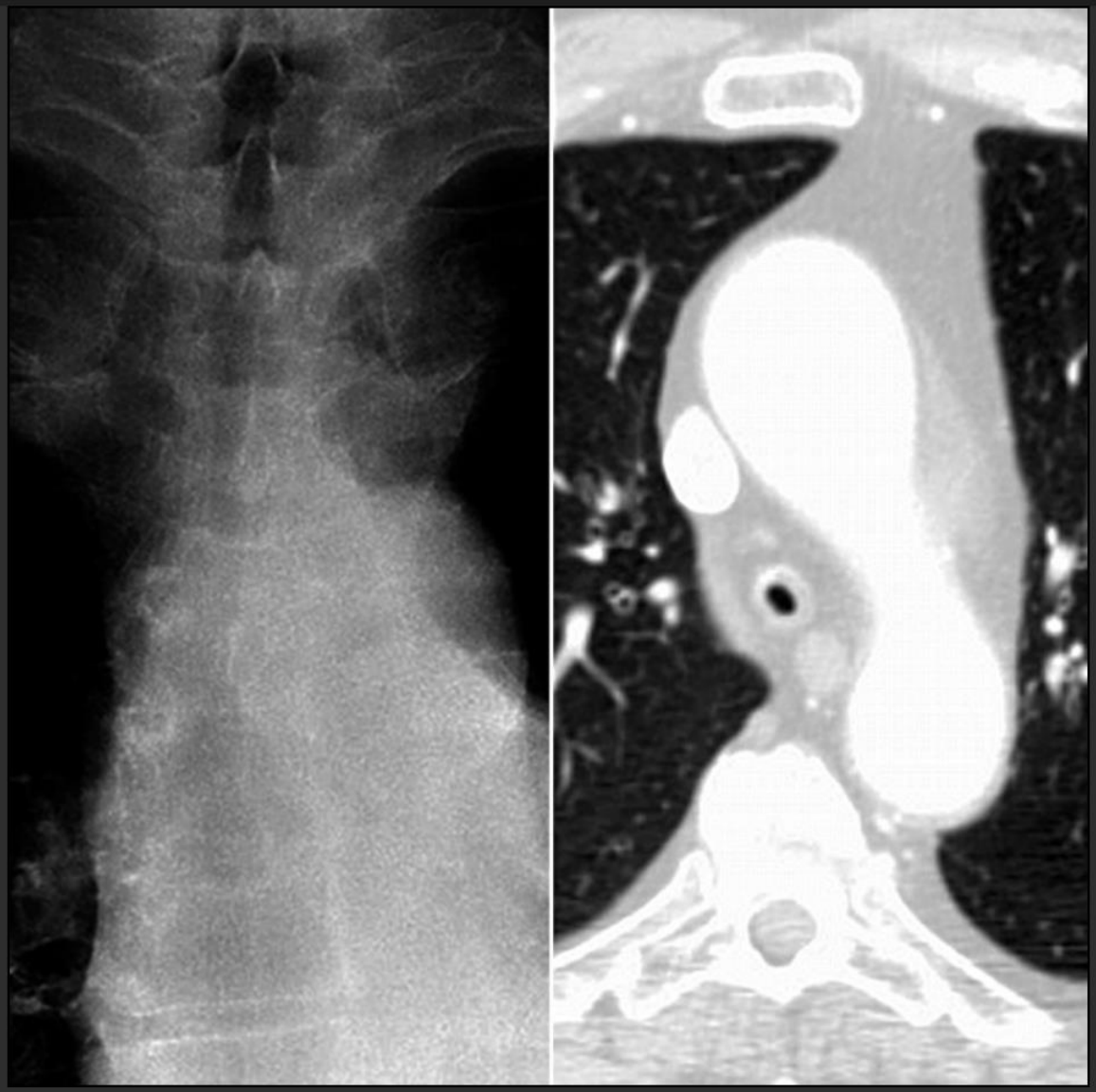
Composite image with coronal NECT (left) and volume-rendered CT reformation (right) of a patient with postintubation tracheal stenosis shows focal hourglass-shaped tracheal narrowing. Location, severity, and transition margins are important descriptors for classification and clinical management. (Used with permission from AIRP.)



Composite image with axial NECT in lung (left) and soft tissue (right) window of a patient with tracheal stenosis due to tracheobronchopathia osteochondroplastica shows anterolateral mural thickening → and nodular calcifications ↱ that spare the posterior membranous trachea. (Used with permission from AIRP.)



Sagittal NECT of a patient with tracheal stenosis secondary to tracheobronchopathia osteochondroplastica shows characteristic diffuse anterior tracheal wall thickening and nodular calcifications → that spare the posterior trachea. (Used with permission from AIRP.)



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Composite image with PA chest radiograph (left) and axial CECT (right) of a 67-year-old man with relapsing polychondritis shows diffuse, severe tracheal stenosis. Expiratory-phase imaging may be used to evaluate for associated tracheomalacia.