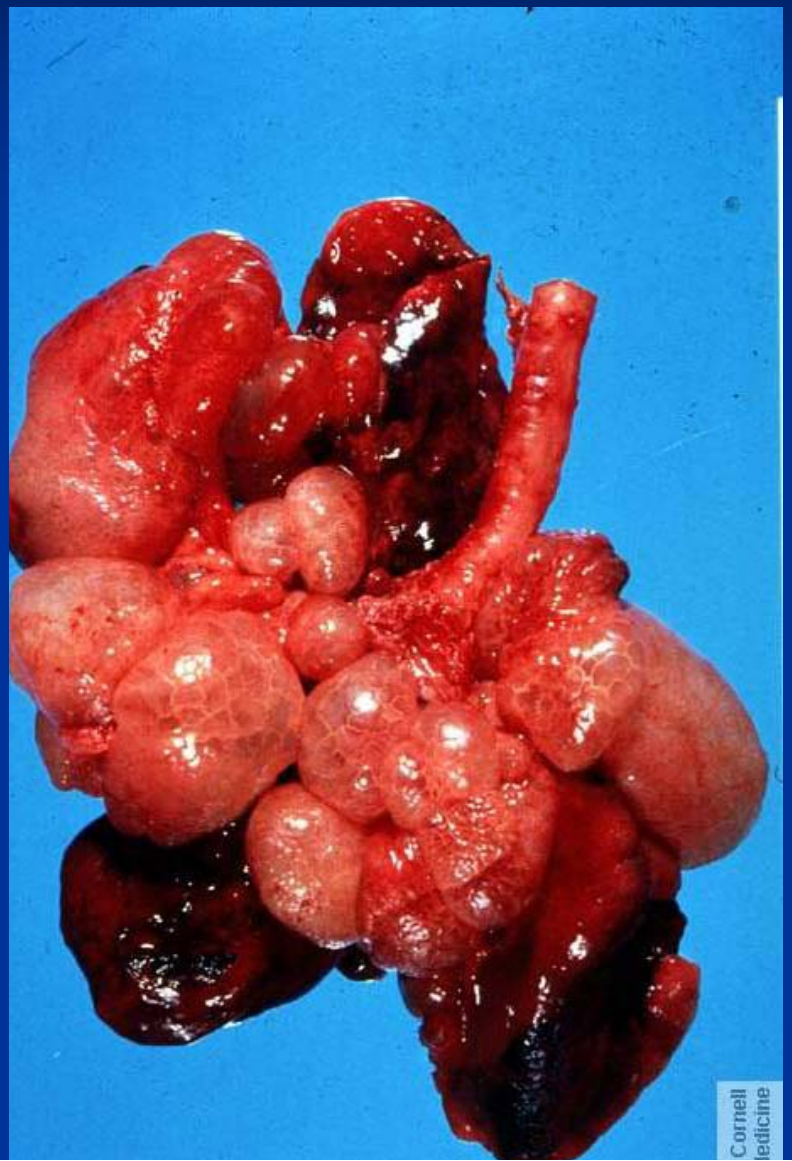
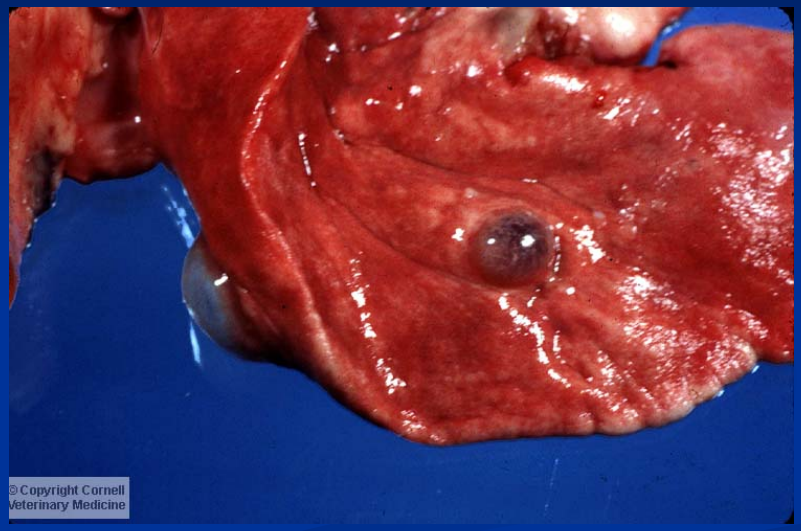
Tracheal Lesions in Dogs

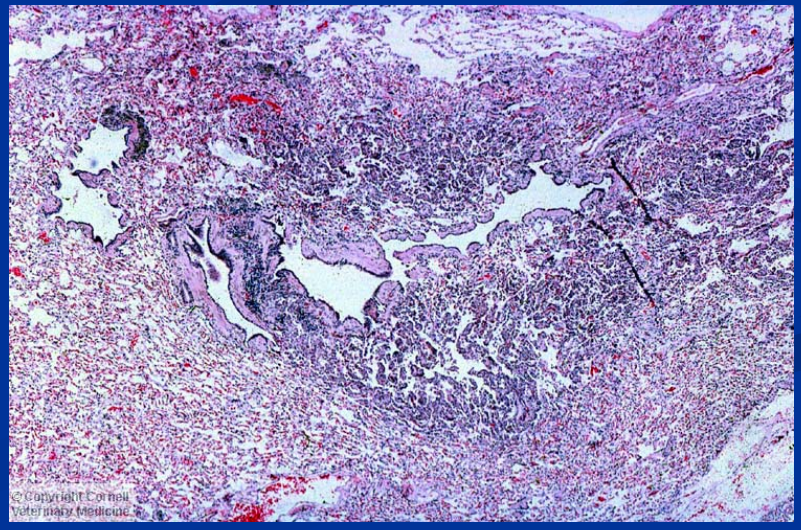
- Tracheal hypoplasia – English bulldog and Boston terrier
- Tracheal/tracheobronchial collapse
  - Toy and miniature breeds
  - Dorsoventral flattening of the whole trachea with widening of dorsal tracheal membrane which can collapse
- Segmental tracheal collapse resulting in stenosis
  - Congenital or acquired

Tracheal Collapse - Dog

Bronchial Dysplasia –Afghan Hound







Primary Ciliary Dyskinesia in Dogs

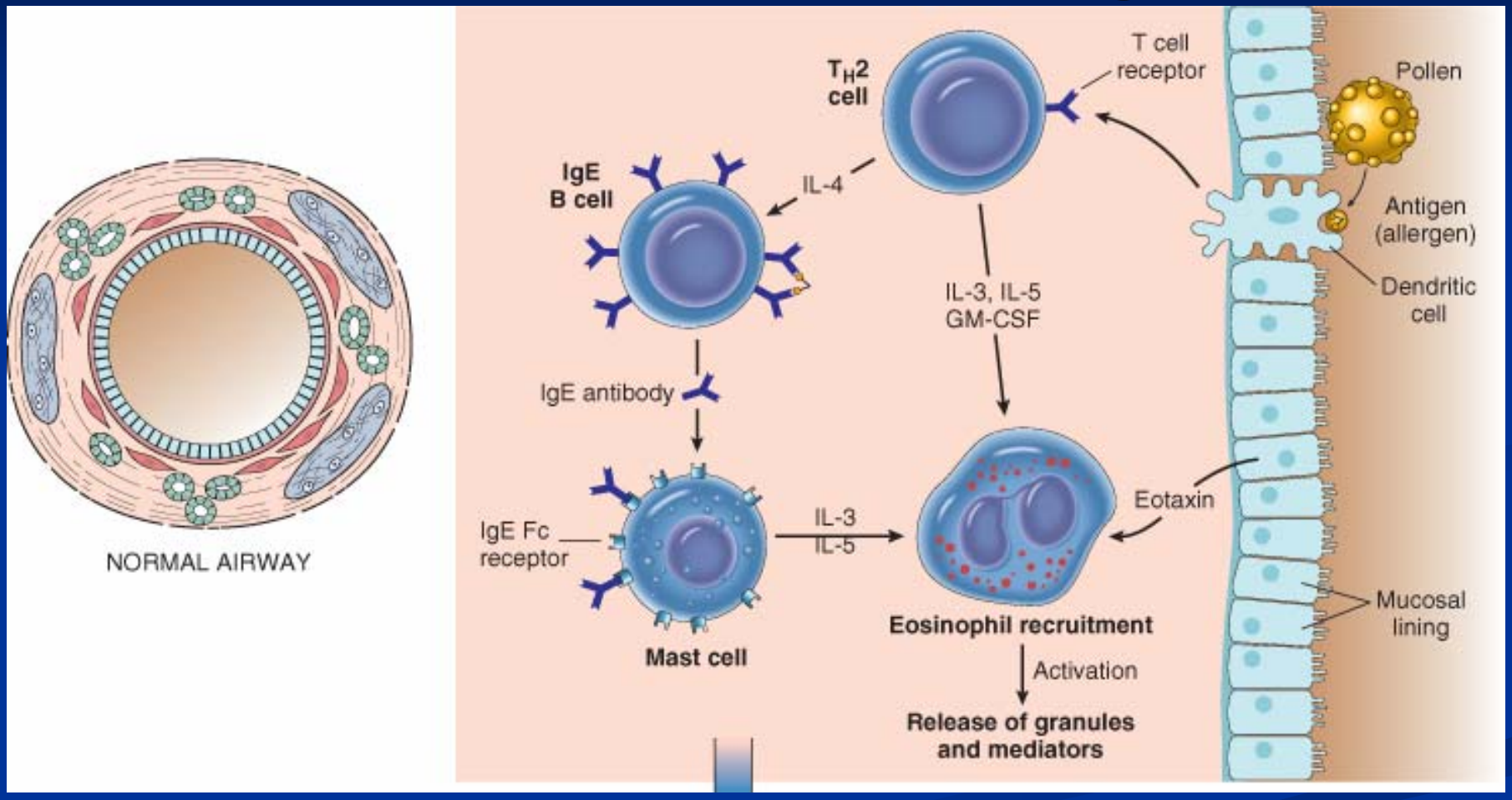
- Immotile cilia syndrome
- Kartagener's syndrome has *situs inversus*
- Decreased mucociliary clearance leads to chronic infections – rhinitis, sinusitis, pneumonia - and bronchiectasis
- Also infertility due to sperm immotility
- Diagnosis by ultrastructural examination of ciliated epithelium (eg nasal biopsy)

Bronchiectasis Secondary to Primary Ciliary Dyskinesia

Feline Asthma (Feline Allergic Bronchitis)

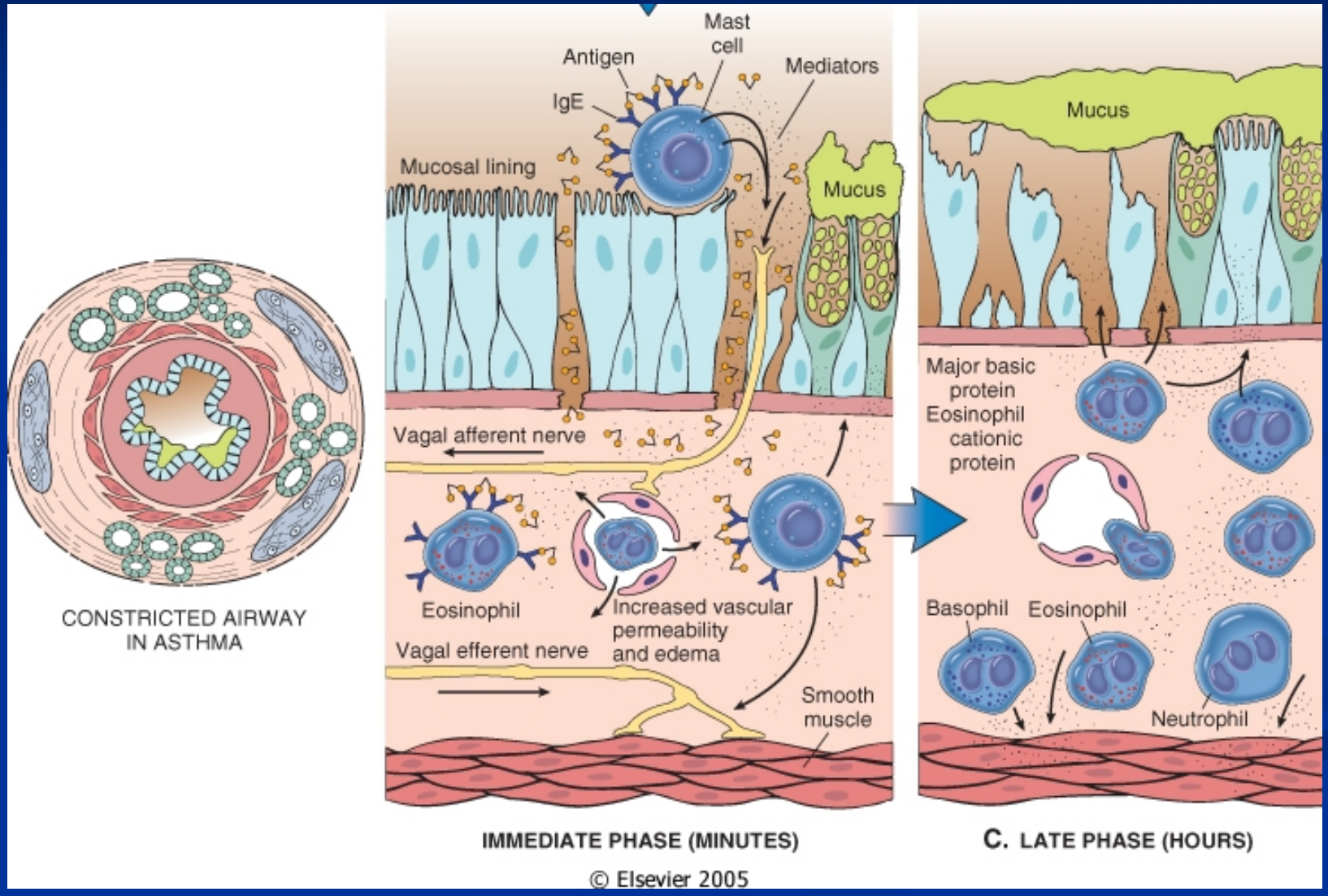
- Pathogenesis
  - Extrinsic -Type I hypersensitivity
  - ? Intrinsic
- Etiology: inhaled allergens, irritants, e.g. parasite proteins, cigarette smoke
- Leads to hyperreactivity
- Clinical signs
  - Recurrent cough and/or dyspnea
  - Wheezing due to reversible broncho-constriction
  - Generally well controlled with steroids, may need to remove from allergens

Sensitization to Allergen



From Kumar et al, 2005

Allergen-Triggered Asthma



Feline Asthma

- BAL cytology
  - Large number of eosinophils
  - Differentiate from parasitic migration (look for larvae at low magnification)
- Do dogs get this disease?

Feline Asthma

- Pathology
  - Gross
    - Lungs do not collapse due to air trapping
    - Mottled appearance
  - Histopathology
    - Tissue eosinophilia, sometimes also blood eosinophilia
    - Smooth muscle hyperplasia
    - Bronchitis with excess mucus
    - Edema