

Strangles

Pathology

- Purulent rhinitis
- Lymphadenitis/abscesses
 - Regional
 - Systemic

Strangles

Potential Sequella

- Guttural pouch empyema
- Internal dissemination - “bastard” strangles
- Bronchopneumonia
- Facial paralysis and Horner’s syndrome
(sympathetic nerve)
- Laryngeal hemiplegia (recurrent laryngeal nerve)
- Purpura hemorrhagica (AbAg deposition)

Glanders

- Etiology: *Burkholderia mallei* (*Pseudomonas mallei*)
- Source - infected feed and water, rarely air droplets
- Eradicated except for North Africa, Asia, Eastern Europe, Brazil
- Zoonosis (potential bioterrorism agent)
- Contagious systemic disease
- Transmission to carnivores via ingestion of affected horses

Glanders

■ Pathology

- Nasal - pyogranulomatous rhinitis that ulcerates
- Lung - may see miliary granulomas due to hematogenous spread
- Skin (legs and ventral abdomen)- may have suppurative lymphangitis (“equine farcy”)

Melioidosis (Pseudoglanders)

- Etiology: *Burkholderia pseudomallei* (*Pseudomonas pseudomallei*)
- Source - infected feed and water
- Associated with clay soils
- Southeast Asia, Europe, Northern Australia mainly
- Zoonosis (potential bioterrorism agent) – Aboriginal communities
- Also in donkeys, goats, sheep and macropods
- Contagious systemic disease with wide host range including rodents

Melioidosis (Pseudoglanders)

- Disease – similar to glanders
- Pathology
 - Systemic
 - Suppuration and abscesses
 - Creamy to caseous, yellow to green
 - Lungs
 - Embolic bacterial pneumonia with abscesses
 - Ulceration of abscesses lead to pleuritis

Lower Respiratory Tract

- Lungs
 - Non Infectious Diseases
 - Infectious Diseases
 - Neoplasia
- Pleura and thoracic cavity

Lung - Non Infectious Diseases

- Abnormalities of Inflation
 - Congenital atelectasis
 - Emphysema
 - Alveolar
 - Associated with COPD
- Metabolic Disease
 - Pulmonary mineralization (“calcinosis”) - toxicosis
- Circulatory Disease
 - Pulmonary hemorrhage (EIPH)
 - Pulmonary edema e.g. cardiogenic, anaphylaxis
- Aspiration pneumonia

Congenital Atelectasis

- Alveoli incompletely distended
- Implies abortion or stillbirth
- Lung fails to float in formalin/water
- Lack of thrombosis in umbilical cord
- Can also occur following live birth
 - Aspiration of amniotic fluid and meconium
 - Surfactant abnormality – “barker foals” – see hyaline membrane (ARDS)

Pulmonary Mineralization

- Diffuse lesion (“pumice lung”, “calcinosis”)
- Lung does not collapse, may be gritty
- Capillary basement membranes mineralized
- Other organs affected