

# Upper Respiratory Tract - Infectious Disease

## ■ Bacterial

- Systemic diseases with prominent nasal discharge
  - Strangles
  - Glanders
  - Melioidosis
- Sinusitis secondary to sinus cysts, tooth root abscesses

## ■ Mycotic

- Aspergillosis (gutteral pouch mycosis)

## ■ Aquatic protistan parasite, class Mesosmycetozoa

- *Rhinosporidium seebori* (nasal polyps) – large sporangia containing endospores on histo

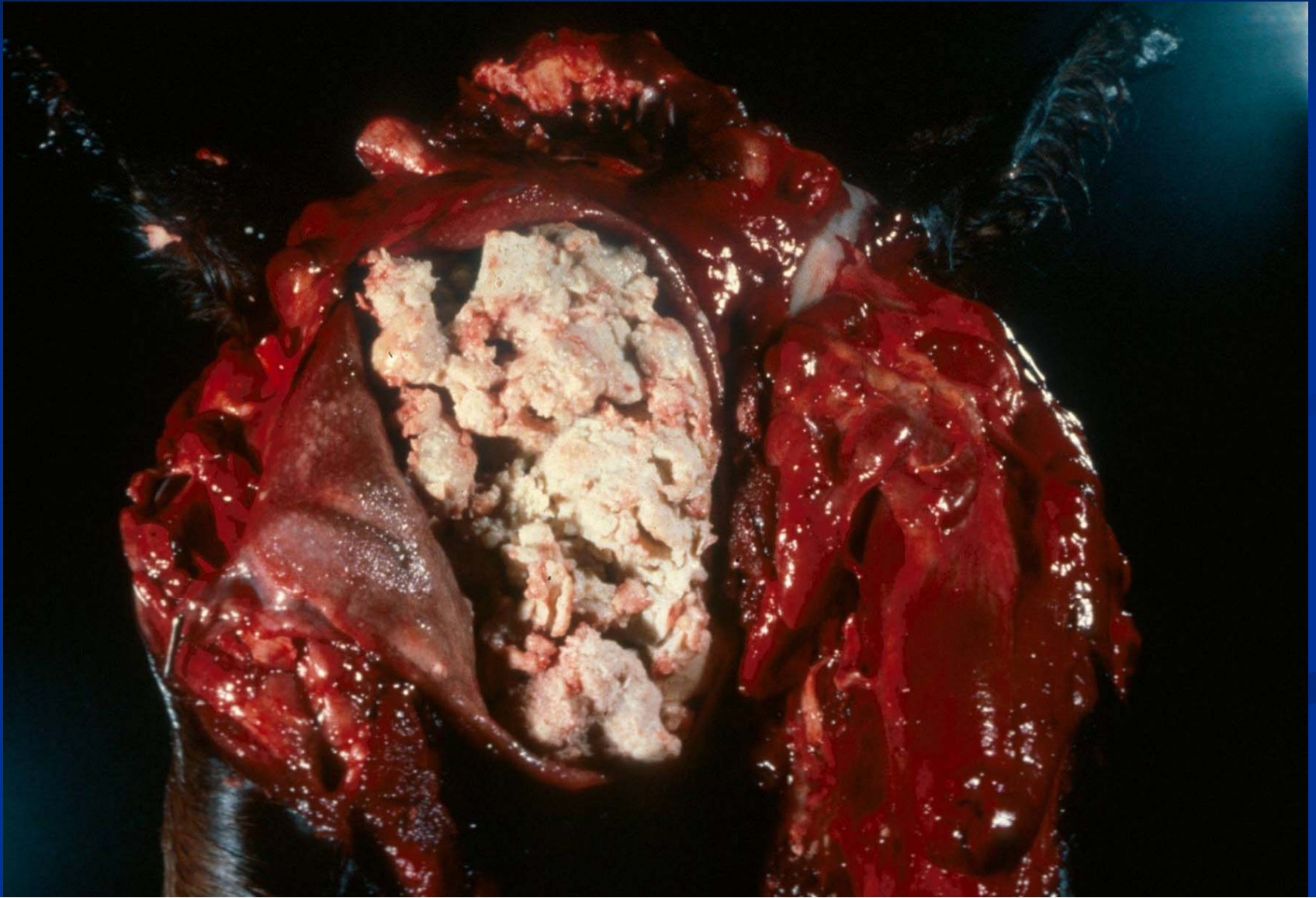
*Rhinosporidium seebori* (nasal polyps)



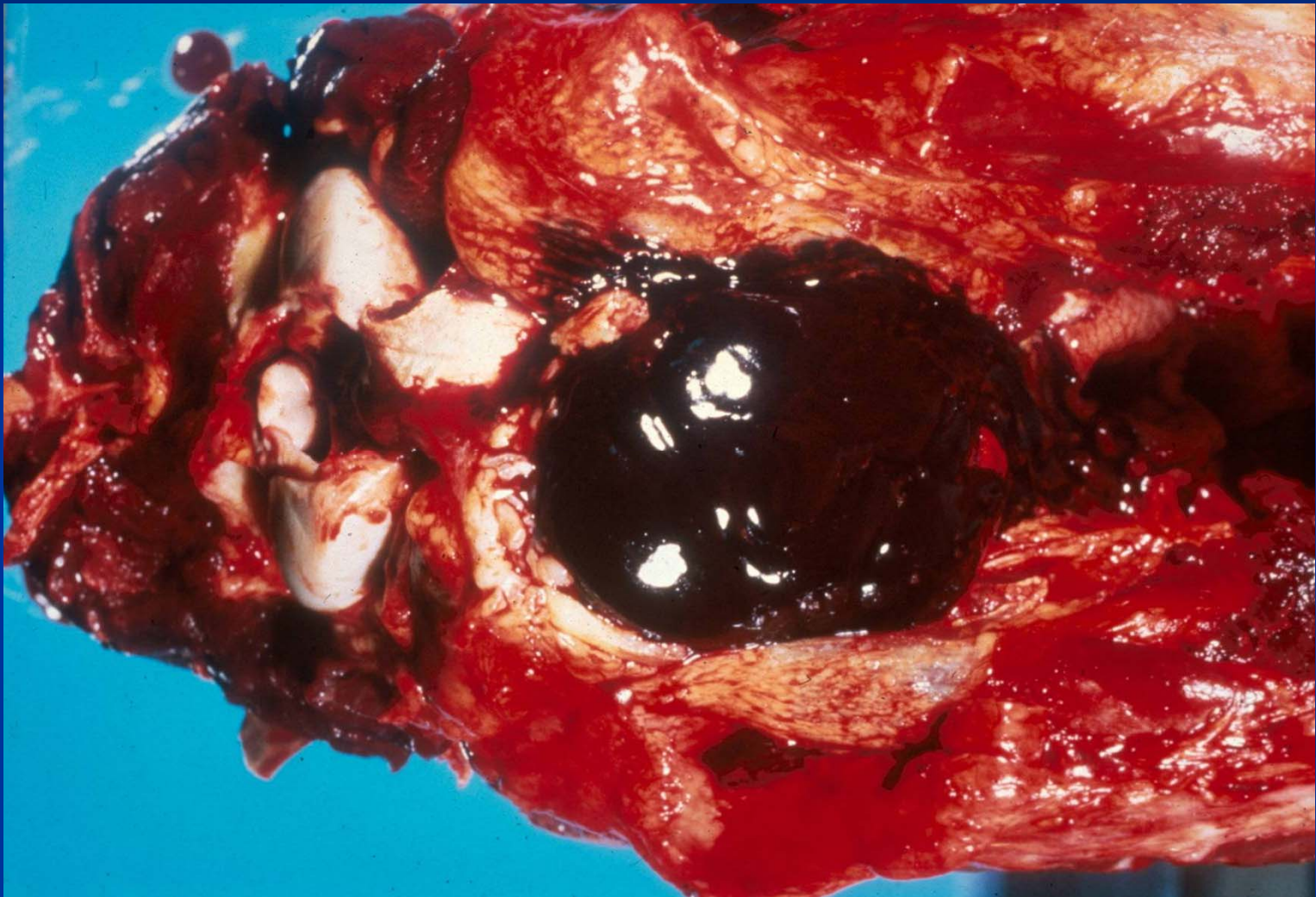
# Diseases of the Guttural Pouch

- Bacterial
  - Ventral
  - Catarrhal/suppurative (empyema)
  - *Streptococcus equi* (strangles)
- Mycotic
  - Dorsal
  - Granulomatous
  - *Aspergillus spp.*
- Tympany

# Guttural Pouch - Empyema



# Guttural Pouch – Hemorrhage Secondary to Mycotic Infection

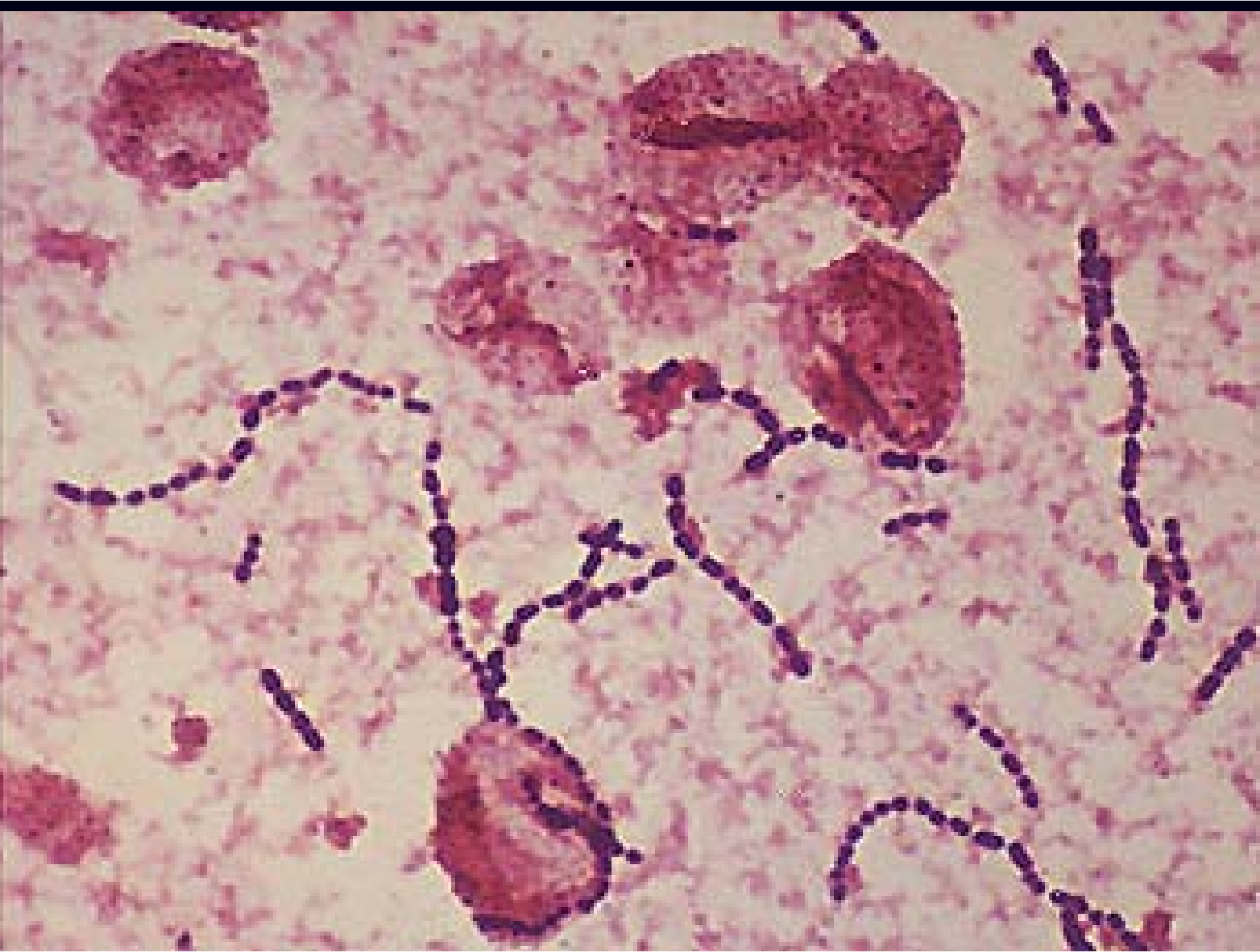


# Strangles

- Etiology: *Streptococcus equi* ssp *equi*
  - Not part of normal nasal flora
- Source - infected feed, exudate or air droplets
- Worldwide occurrence
- Young horses under stress
- Acute contagious systemic disease
  - Fever
  - Purulent rhinitis
  - Cough
  - Enlarged lymph nodes

# *Streptococcus equi* subsp *equi*

- *Strep. equi* is an obligate pathogen of Equidae
  - Gram positive cocci,  $\beta$ -hemolytic, catalase negative, Lancefield group C
- Virulence factors include
  - Hyaluronic Acid Capsule
    - Hides antigenic determinants from immune recognition
    - Prevents phagocytosis





# Strangles

- Upper respiratory disease
- Lymph nodes are infected and swollen
- Abscesses impinge on airway – obstruction
- Abscess rupture
- “Bastard” strangles complications





- Guttural pouch empyema- uncommon
- Treatment includes drainage

