Infectious Diseases: 
Respiratory & Reproductive Systems

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Objectives

- Discuss some of the infections viruses can cause in the respiratory and reproductive systems
- Discuss some of the infections bacteria can cause in the respiratory and reproductive systems
- Discuss some of the infections parasites can cause in the respiratory and reproductive systems
Nasal Passages and Sinuses

- Rhinitis – inflammation of nasal passages
- Sinusitis – inflammation of sinuses
Rhinitis - Sinusitis

- Acute infections – viruses
- Chronic infections – bacteria
  - Secondary to viruses
  - Secondary to irritations (cold weather, wind)

- Clinical symptoms
  - Reddened, swollen tissues
  - Sneezing
  - Watery nasal discharge
  - Mucoid nasal discharge
  - Mucopurulent nasal discharge
  - Open-mouth breathing
Tonsils

- Tonsillitis – inflammation of tonsils
Tonsillitis

- Acute and chronic infections – bacteria

Clinical symptoms (dogs, rarely cats)
- Swollen tonsils
- Gagging
- Retching
- Soft coughing
- Mucus expulsion
Lungs

- Pneumonitis – inflammation of lungs
- Pneumonia – extreme inflammation of lungs
Pneumonitis

- Acute and chronic infections – bacteria, viruses, worms

- Clinical symptoms
  - Deep cough
  - Difficult breathing
Pneumonia

- Acute and chronic infections – bacteria
  - Secondary to viruses
  - Secondary to stress

- Clinical symptoms
  - Deep cough
  - Difficult breathing

- Pathology
  - Lung tissue – congestion, hemorrhage, edema
  - Air sacs – blood, mucus, pus, emphysema
Viral Lung Diseases

- Infectious bovine rhinotracheitis (IBR)
- Equine rhinopneumonitis
- Equine influenza
- Swine influenza
- Canine distemper
- Feline viral rhinotracheitis (FVR)
- Feline calicivirus (FCV)
- Fowl infectious bronchitis
- Fowl infectious laryngotracheitis (LT)
- Avian influenza (AI)
Bacterial Lung Diseases

- Cattle pasteurellosis
- Swine pneumonitis
- Feline pneumonitis
- Canine infectious tracheobronchitis (kennel cough)
Helminth (Worm) Lung Diseases

- Nematodes (lungworms)
  - Cattle
  - Sheep
  - Goats
  - Horses
Uterus

- Metritis – inflammation of uterus
- Pyometra – pus in inflamed uterus
- Abortion – premature birth
- Retained placenta – delayed elimination
Metritis – Abortion – Retained Placenta

- Acute and chronic infections – bacteria, viruses, protozoa
  - Pyometra – bacteria, protozoa

- Routes of transmission
  - Ingesting
  - Inhaling
  - Vaginal ascending (environment)
  - Breeding (venereal)
Lab tests

- Blood
- Fetal tissues
- Placental tissues
- Uterine mucus
- Vaginal mucus
- Preputial mucus
Bacterial Abortion Diseases

- Brucellosis
- Leptospirosis
- Campylobacteriosis (vibriosis)
Viral Abortion Diseases

- Swine parvovirus
- Infectious bovine rhinotracheitis (IBR)
- Bovine viral diarrhea (BVD)
- Swine pseudorabies
- Equine rhinopneumonitis
Protozoal Abortion Diseases

- Bovine neosporosis
- Bovine trichomoniasis
Mammary gland

- Mastitis – inflammation of mammary glands (udder)
Mastitis

- Acute and chronic infections – bacteria
- Routes of transmission
  - Teat orifice contamination
  - Wound penetration contamination
  - Systemic blood infection
Clinical symptoms
- Hot, swollen, painful udder
- Mucoid milk
- Hemorrhagic milk
- Purulent milk

Lab test
- Milk culture
- Milk somatic cell count
- California Mastitis Test ® (CMT)