

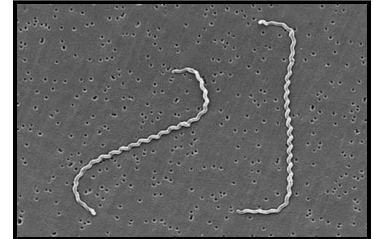


Top 20 Equine Part 2

5 More Of Zuku's Top 20 Equine Conditions To Know For NAVLE® Success:

6. **Infectious abortion**

- **Classic case:** Pregnancy loss after placental development (about 40–45 days)
 - Equine herpesvirus-1 (EHV-1) – late-term, minimal fetal autolysis, placenta grossly normal; can be an outbreak
 - Equine viral arteritis (EVA) – fetus autolyzed
 - Leptospirosis - icteric, autolyzed fetus
 - Other bacteria/ascending placentitis – grossly edematous, brown, placenta with fibrinonecrotic exudate
 - Fungal – thickened placenta, minimal fetal autolysis
- **Dx:** Necropsy of fetus & fetal membranes with culture, histopathology, PCR
- **Rx:** None
- **Pearls:**
 - Prevent viral and leptospiral abortion by vaccination
 - Poor perineal conformation is risk factor for ascending placentitis
 - Most common cause of noninfectious abortion is twinning
 - EHV, EVA, and lepto are contagious and lepto is zoonotic!



Electron micrograph of Leptospira interrogans, an infectious cause of abortion

7. **Exertional rhabdomyolysis** (“tying up”)

- **Classic case:**
 - Hard and painful muscles
 - Reluctance to move
 - Weakness
 - Recumbency
 - Dark urine due to myoglobinuria
 - Two most common chronic types affect skeletal muscle:
 - Polysaccharide storage myopathy (PSSM) – Quarterhorse, Warmblood, or Draft horse with abnormal glycogen storage
 - Recurrent exertional myopathy (RER) – Thoroughbred or Standardbred with abnormal intracellular calcium metabolism
- **Dx:**
 - Increased serum muscle enzymes (CK, AST, LDH), +/- azotemia if myoglobinuria
 - For PSSM (type I) – genetic test
 - For RER and others – muscle biopsy
- **Rx:**
 - Acute – analgesics (NSAIDs), vasodilators (acepromazine), +/- IV fluids
 - Long-term – low starch/high fat diet, daily exercise
 - For RER – minimize stress, pre-treat with dantrolene (calcium-channel blocker)
- **Pearls:**
 - Acute renal failure associated with myoglobinuria is not uncommon in these cases
 - Many other types of myopathies, e.g.: immune-mediated myositis, pasture-associated/atypical myopathy, nutritional myodegeneration, malignant hyperthermia



Myoglobinuria is seen in exertional rhabdomyolysis

8. **Strangles** (*Streptococcus equi* subsp. *equi* infection)

- **Classic case:**
 - Typically young horse with fever, then...
 - Mucoïd to mucopurulent nasal discharge
 - Lethargy
 - Submandibular/retropharyngeal lymphadenopathy
 - Difficulty swallowing & inspiratory respiratory noise
- **Dx:** PCR or culture on nasopharyngeal or guttural pouch wash or abscessed lymph node exudate
- **Rx:**
 - Drain & lavage abscess
 - Antimicrobials (procaine penicillin = Rx of choice) for horses with dyspnea & severe lethargy; otherwise controversial
 - Supportive care/tracheotomy in horses having difficulty breathing
- **Pearls:**
 - Transmission via fomites & direct contact
 - HIGHLY CONTAGIOUS & host adapted
 - Treat all suspect cases as possible strangles until proven otherwise (i.e., strict biosecurity!)
 - Complications worsen prognosis – purpura hemorrhagica, guttural pouch infection, bastard strangles



Classic lymphadenopathy of strangles

9. **Viral upper respiratory tract disease**

- **Classic case:** Typically an outbreak with...
 - Increased severity in younger horses
 - Fever, lethargy, & anorexia
 - Serous nasal discharge
 - Submandibular lymphadenopathy
 - Cough
- **Dx:**
 - Most common causes include: equine herpesvirus-1 (EHV-1) and -4, equine influenza virus, equine rhinitis virus, equine viral arteritis
 - PCR on nasal swab for viral antigens – rapid turnaround
 - Paired titers take too long (3-4 weeks)
- **Rx:** Nonsteroidal anti-inflammatories, supportive care; antibiotics only if worried about secondary bacterial infection
- **Pearls:**
 - Excellent prognosis in uncomplicated cases
 - EHV-1 can also cause neurologic disease and abortion

10. **Laminitis**

- **Classic case:**
 - Horse walks with hind feet under & forefeet extended (due to forelimb pain); appears to “walk on eggshells” & is reluctant to move
 - Weight shifting (treading)
 - Recumbency in severe cases
 - Prominent arterial digital pulses, warm feet
- **Dx:**
 - 4 Main etiologies – systemic inflammatory response syndrome-associated, endocrinopathic, support-limb, and traumatic
 - Physical exam findings - positive response to hoof testers over the toes
 - Radiographic changes - (absent in acute or mild cases)
 - Thickening of hoof-lamellar interface
 - Rotation/sinking of 3rd phalanx

- Gas lines up dorsal hoof wall
- Periosteal proliferation of dorsodistal 3rd phalanx (when chronic)

○ **Rx:**

- Distal limb cryotherapy (esp. in acute phases)
- Sole support & stall rest in acute phases
- Pain relief (NSAIDs, opioids)
- Corrective trimming & shoeing during chronic phase
- Address underlying cause!!

○ **Pearls:**

- Prognosis guarded
- Chronic cases have external divergent hoof rings



Acute laminitis – rotation of P3 and gas tracking up dorsal hoof wall from toe

Images courtesy of [James Heilman, MD](#) (myoglobinuria), Dr. [why137](#) (yawning horse), Dr. Nora Grenager (mini with head in feed bin), Dr. Stephanie Brault (laminitis radiograph), [US Centers for Disease Control and Prevention](#), Dr. WD Wilson (strangles).