Tetanus *(Clostridium tetani)*

**Classic case:** Sawhorse stance, *risus sardonicus* (riacus smile, spasmodic grin) Usually history of a wound, umbilical infection or surgery in past 1-3 weeks.

**Presentation:**

**History:**
- Castration or tail docking with contaminated instruments
- Wound or surgery in last 1-3 weeks
- Omphalitis (umbilical infection)
- Postpartum mares

**Muscle stiffness**
- Usually generalized
- Localized tetanus is possible
  - Usually in cats
  - One limb or more limbs
  - Hyperextension

**Facial features**
- Narrowed palpebral fissures
- *Lips drawn back* (*risus sardonicus*)
- Forehead wrinkles
- *Ears drawn to top of head* with ear tips pointing toward each other
- Enophthalmos
- *Protruding nictitating membrane* (exaggerated by hand clap or tap on nose)

**Trismus** (lockjaw)

**Posture**
- *Sawhorse stance*
- *Opisthotonos*

**Flared nostrils** (large animals)

**Bloat** (cattle)

**DDX:**
- Colitis, Pleuritis, Laminitis, Meningitis, Epilepsy, Myopathy, Cervical spinal disease
**Test of choice:**
Diagnosis usually based on clinical presentation

**Rx of choice:**
**Tetanus antitoxin**
- Only effective against unbound or free neurotoxin
- Give early in course of disease
- May cause anaphylactic shock in small animals

Clean and debride wound

**Antibiotics**
- Penicillin G
- Metronidazole
  - Alternative to Penicillin G

**Sedation**
- Diazepam (GABA agonist)
- Clonazepam (small animals)
- Acepromazine
  - Cheaper alternative to GABA agonists

Environment should be quiet and dark

**Well-padded bedding**

**Turn often if recumbent** – prevent decubital ulcers
Tetanus (Clostridium tetani)

Prognosis:
Guarded to poor if recumbent
Approximately 75% recover with nursing care if not recumbent

Prevention:
Immunization with tetanus toxoid (horses – even those that recovered from tetanus)
Aseptic surgical techniques
Oxidizing disinfectants (iodine or chlorine)

Pearls:
Neurotoxin produced by the anaerobic bacteria Clostridium tetani
- Neurotoxin interferes with inhibitory interneurons in the CNS
- Allows excessive firing of motor neurons causing tetanus and hypertonia
Horses and humans most susceptible
Dogs and cats most resistant
Usually see only single cases,
but outbreaks can occur following routine tail dockings, castrations, ear tagging, etc


My Notes: