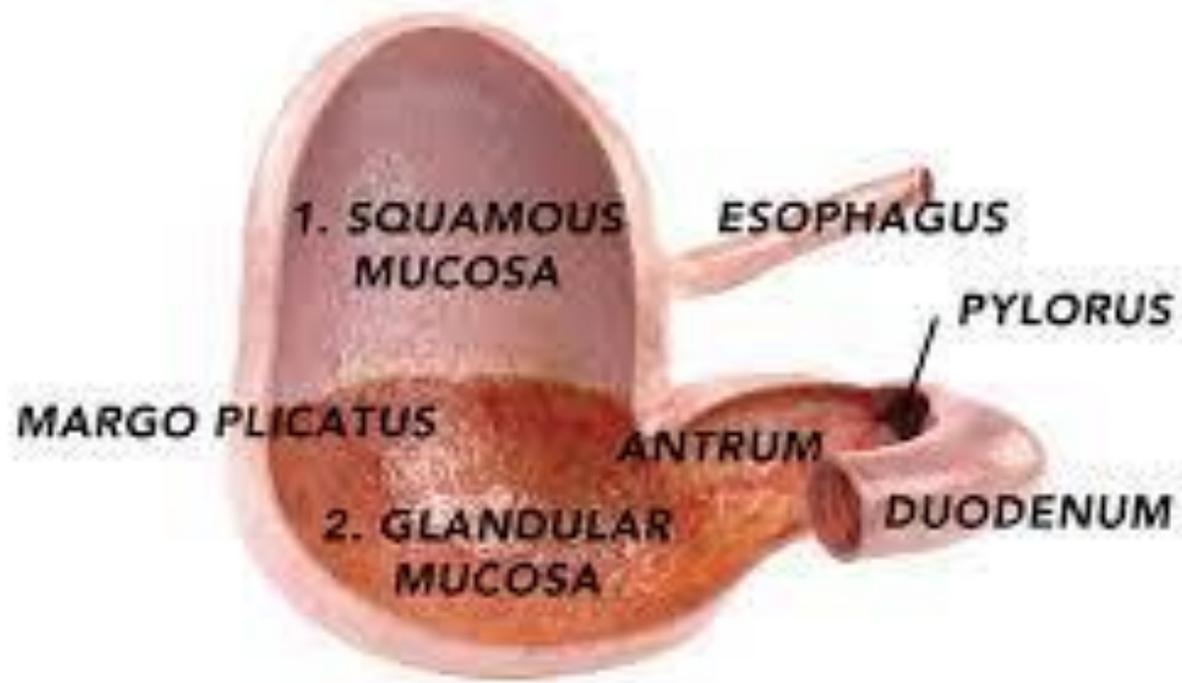


# Equine Gastric Ulcers

Corey Paradine DVM



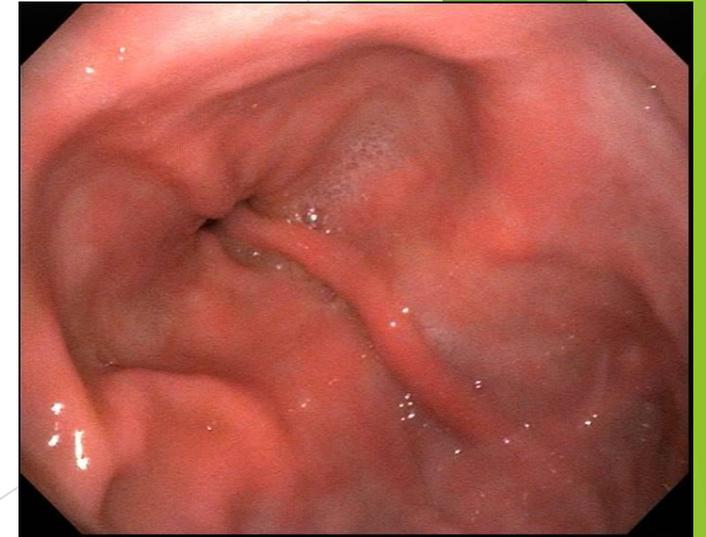
# Anatomy



NOTE: Image represents an empty, air-filled stomach as observed during gastroscopy.

# Anatomy

## Normal Stomach



# What causes gastric ulcers?

- ▶ Management
  - ▶ Stalling/limited turnout
  - ▶ Feeding meals rather than continuous grazing
- ▶ NSAIDs
  - ▶ Bute, Banamine, Equioxx
- ▶ Domestic horses have added stress from training, traveling, herd changes, the wind blew differently, etc etc
- ▶ ???
  - ▶ Lots of research still being done
    - ▶ -differences between non-glandular ulcer disease and glandular/pyloric ulcer disease



# What are the symptoms of gastric ulcers?

- Weight loss
- Reduced appetite
- Poor hair coat
- Recurrent colic
- **Attitude changes**
- **Poor performance**

▶ **NOT USUALLY SPECIFIC!**



# Diagnosing gastric ulcers

- ▶ **Gastroscopy!!**
- ▶ Sucralfate trial
  - ▶ Acts as a band-aid over lesions
  - ▶ Horses usually respond positively after a few days
- ▶ Fecal blood test??
  - ▶ Not shown to be reliable
- ▶ NOT by symptoms alone!

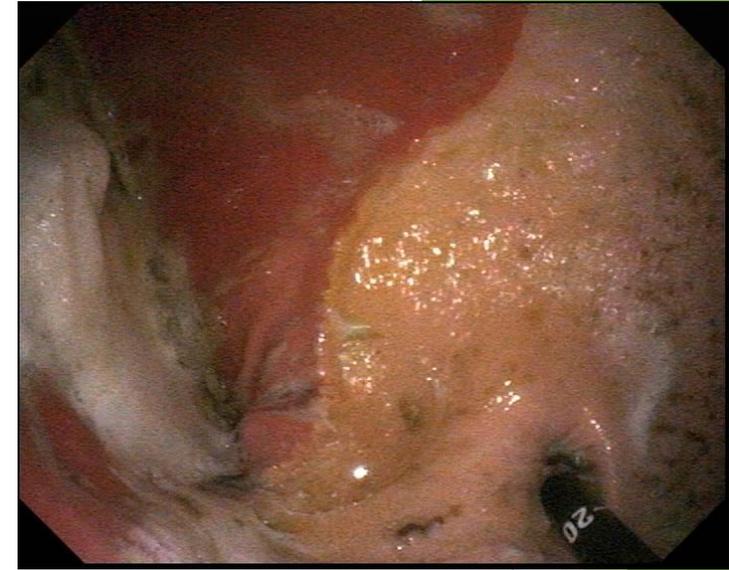


# What are gastric ulcers?

- ▶ Equine Squamous Gastric Disease

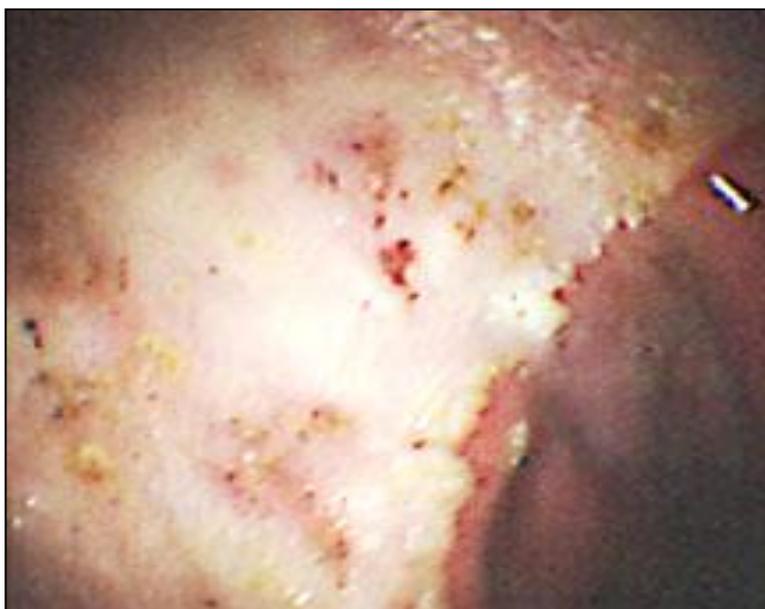
- ▶ Grade 1 lesion

- ▶ Mucosa is intact, but there are areas of hyperkeratosis or gastritis



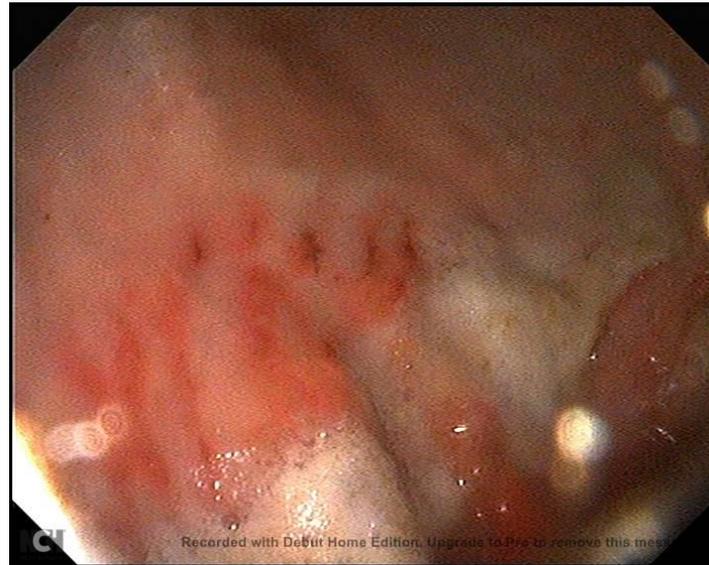
# What are gastric ulcers?

- ▶ Equine Squamous Gastric Disease
  - ▶ Grade 2 Lesion
    - ▶ Small, single or multi-focal lesions; superficial



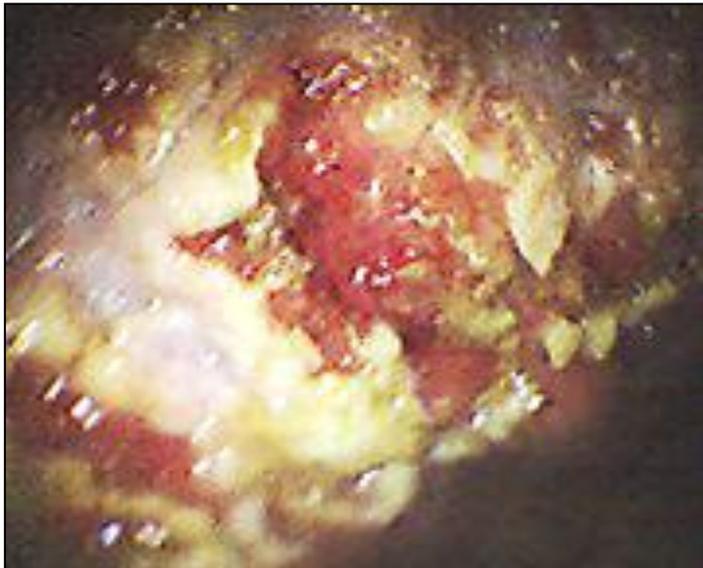
# What are gastric ulcers?

- ▶ Equine Squamous Gastric Disease
  - ▶ Grade 3 Lesion (Moderate Ulceration)
    - ▶ Large single or extensive superficial lesions



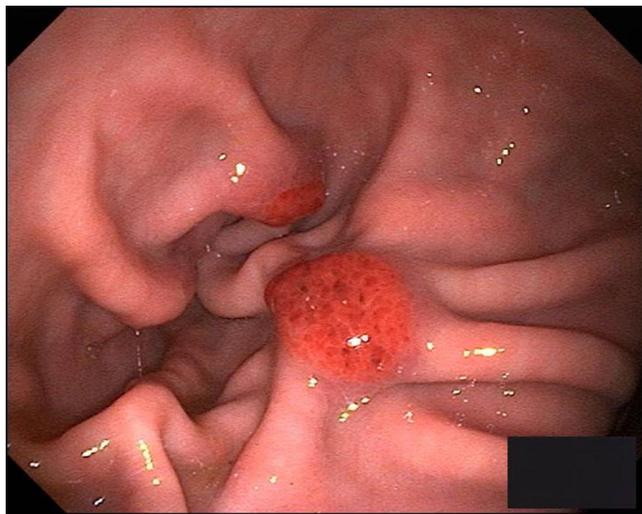
# What are gastric ulcers?

- ▶ Equine Squamous Gastric Disease
- ▶ Grade 4 Lesion (Severe Ulceration)
  - ▶ Extensive lesions with areas of apparent deep ulceration



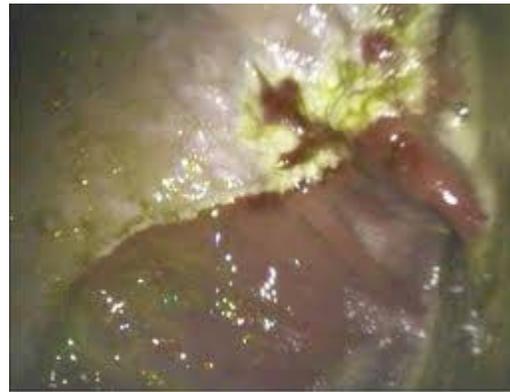
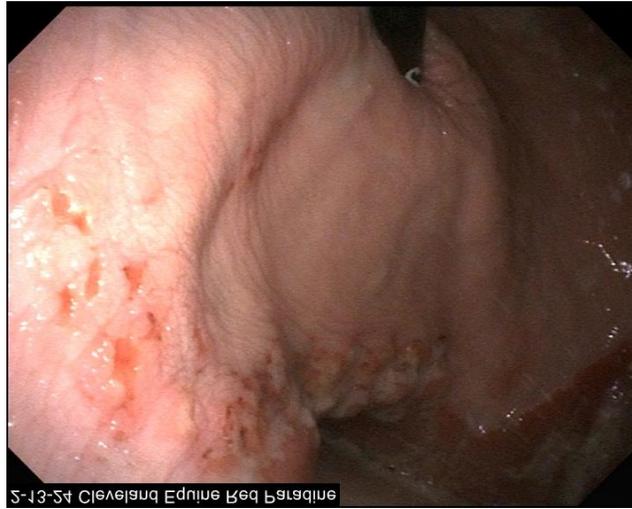
# What are gastric ulcers?

- ▶ Equine Glandular Gastric Disease/Pyloric lesions
  - ▶ Not usually graded, described instead
    - ▶ Fibrinosuppurative
    - ▶ Erythematous, hemorrhagic
    - ▶ Raised, flat, or depressed





2-13-24 Cleveland Equine Red Paradine



# Treatment of gastric ulcers

- ▶ Omeprazole
  - ▶ Only FDA approved treatment - Gastrogard
  - ▶ Only FDA approved drug for prevention - Ulcergard
- ▶ Sucralfate
- ▶ Misoprostol
  - ▶ Primarily used for glandular/pyloric ulcers
- ▶ H2 antagonists (cimetidine, ranitidine, famotidine)
  - ▶ Used occasionally but not as effective as Ulcergard
- ▶ Compounds?
  - ▶ Not worthwhile; omeprazole needs an appropriate carrier agent to get through stomach acid into the small intestine to be absorbed
- ▶ Antibiotics?
  - ▶ Bacteria not shown to be a causative agent in equine gastric ulcer disease



# Feed and management

- ▶ Alfalfa
- ▶ Continuous hay
- ▶ Low-starch grains
- ▶ Oil
  
- ▶ Turnout
  - ▶ As much as possible, with friends
- ▶ Stress management
- ▶ Number of work days
  - ▶ No more than 5 days/week, split up, for glandular ulcers



# Ulcer Supplements

- ▶ Soooooo many
- ▶ Ones I routinely recommend
  - ▶ Protek GI
  - ▶ Purina Outlast
  - ▶ Relyne
  
  - ▶ Platinum Performance GI
  - ▶ Succeed



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Thanks!! Questions?



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