

FURST AID: RECOGNIZING AND TREATING EQUINE GASTRIC ULCER SYNDROME

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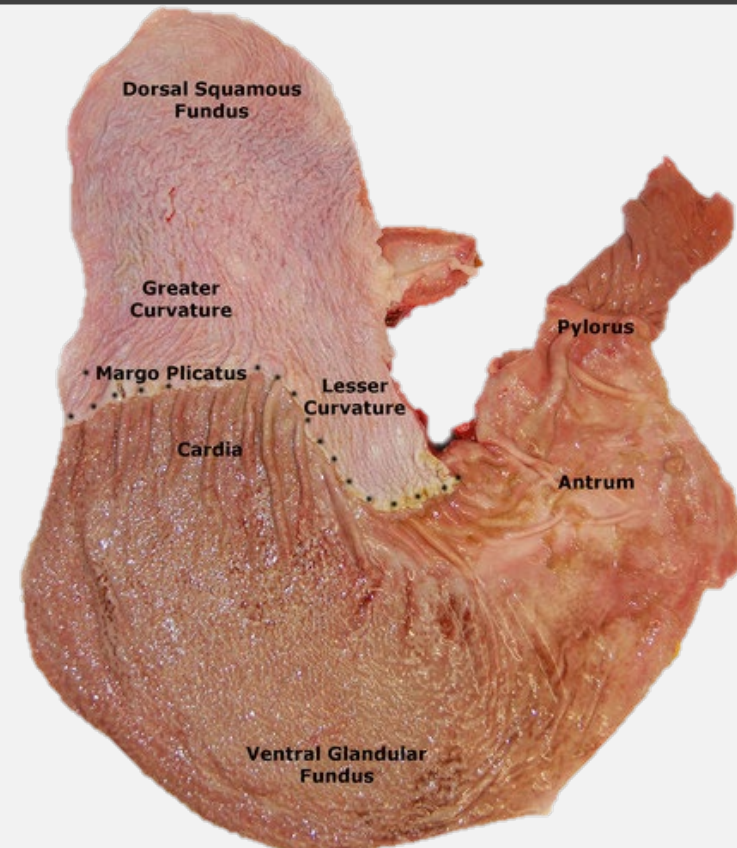
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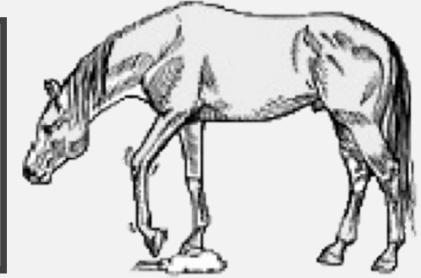
OUTLINE

- Clinical Signs
- EGUS (Equine Gastric Ulcer Syndrome)
 - ESGD (Equine Squamous Gastric Disease)
 - EGGD (Equine Glandular Gastric Disease)
- Hind gut ulcers
- Diagnostics
- Treatment
- Prevention





CLINICAL SIGNS



- Colic signs – often chronic
- Poor weight gain, rarely diarrhea
- Dull haircoat – but not consistent
- Poor performance
 - Kicking out
 - Jumping flat
- Drawn in – not very interactive
- Cannot differentiate glandular vs. squamous ulcers on clinical signs alone
- Many signs are non-specific

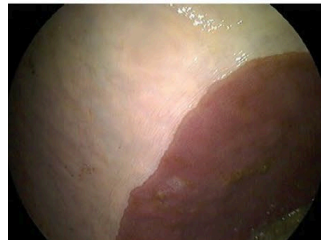


ESGD

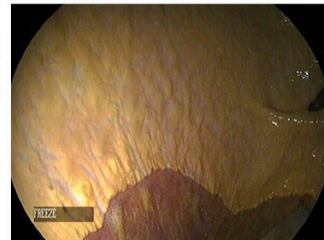


ESGD

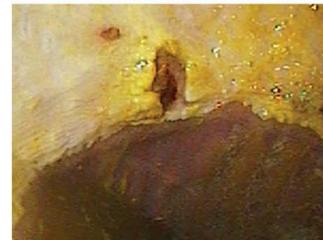
Grade	Squamous Mucosa Description
0	Epithelium is intact, no appearance of hyperkeratosis
I	Mucosa is intact, but there are areas of hyperkeratosis or gastritis
II	Small, single or multi-focal lesions
III	Large single or extensive superficial lesions
IV	Extensive lesions with areas of apparent deep ulceration



Grade 0



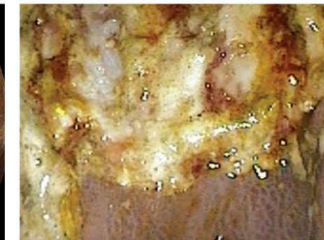
Grade I



Grade II

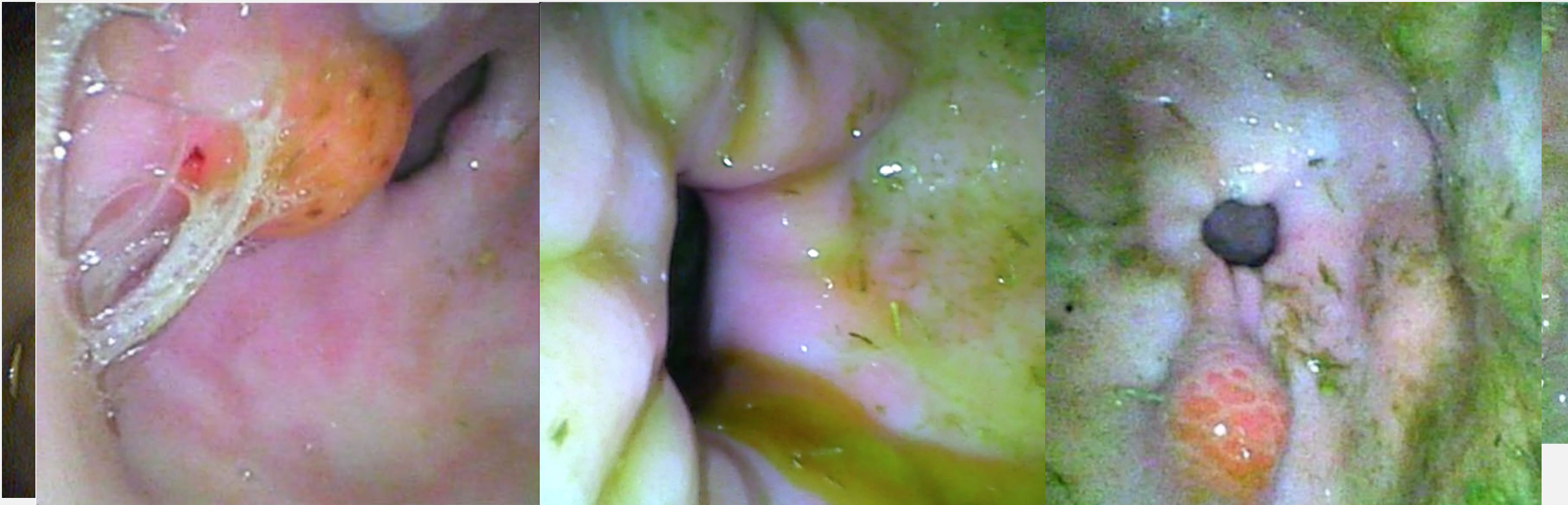


Grade III



Grade IV

EGGD



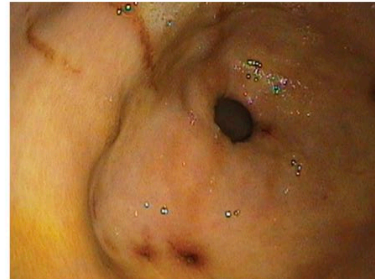
EGGD

- **Anatomic location: cardia, fundus, antrum or pylorus**
- **Distribution: Focal, multi-focal or diffuse**
- **Mild, moderate or severe**
- **Nodular, raised, flat or depressed**
- **Erythematous, hemorrhagic or fibrinosuppurative**

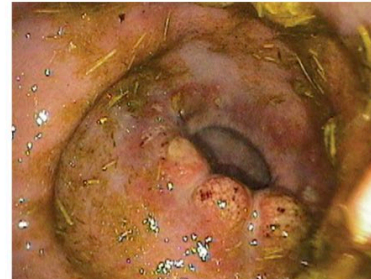
Examples of identifying equine glandular gastric disease lesions.



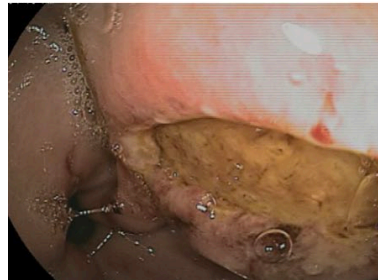
Multifocal Moderate Raised Erythematous Lesions Of The Pyloric Antrum



Multifocal Moderate Flat Hemorrhagic Lesions Of The Pylorus



Multifocal Moderate Raised Fibrinosuppurative Pyloric Lesions



Severe Focal Depressed Fibrinosuppurative Lesion Of The Pyloric Antrum



Polypoid Lesion Of The Pyloric Antrum



Severe Multifocal Raised Hemorrhagic And Fibrinosuppurative Lesion Of The Pyloric Antrum

HIND GUT/COLONIC ULCERS



- Right Dorsal Colitis
- Not related to the stomach
- Cannot be evaluated with endoscopy as it involves the large colon
 - Can be evaluated with ultrasound
- Clinical signs are often more severe – diarrhea, depression, marked weight loss

PREVALENCE

ESGD

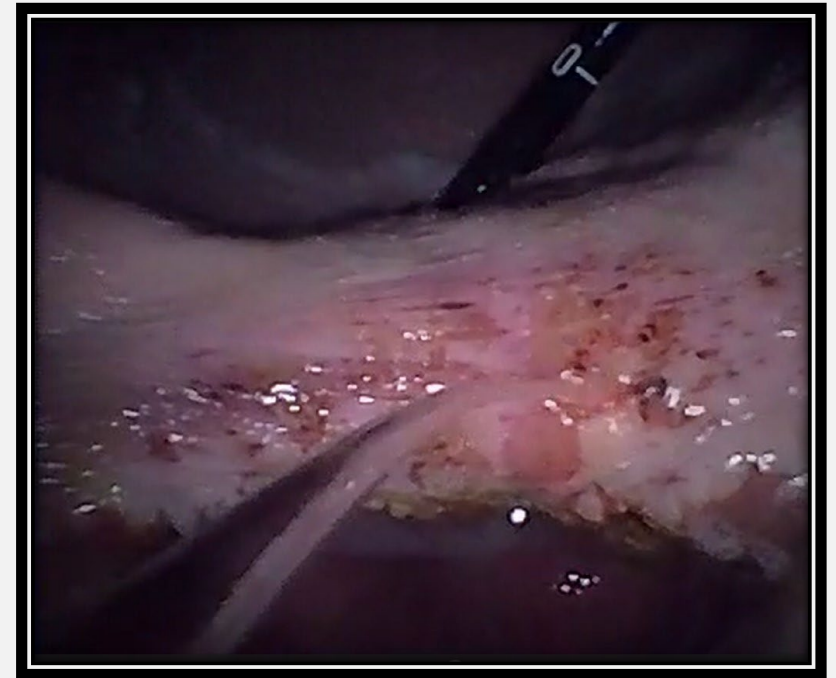
- Thoroughbreds: 37% of untrained horses affected, increasing to 80–100% within 2–3 months of race training
 - Standardbred overall prevalence of 38%, up to 87% in training
- English Sport Horses: 17–58%
 - 37–59% of Pleasure horses
- Western Pleasure: 79%
- Endurance: 48% out of competition, 66–93% while competing
- Backyard: 11% (61% feral horses)

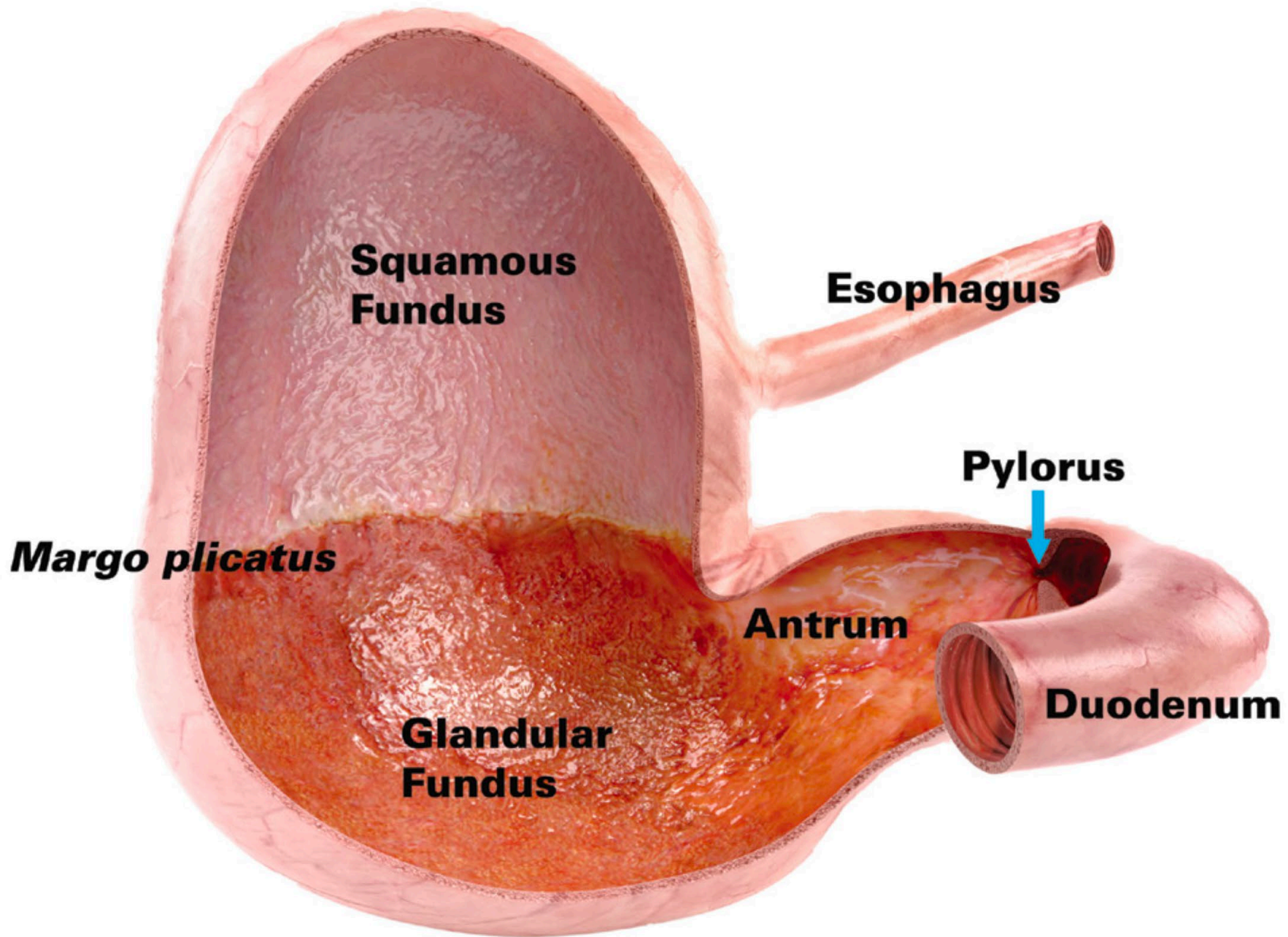
EGGD

- The prevalence is less well understood.
- Thoroughbreds: prevalences of 25%-65%.
- English Sport Horses: 64-72%
 - 54% for Pleasure horses
- Quarter Horses: 59%
- Endurance: 16% outside of competition, 27–33% while competing.

DIAGNOSTICS

- Ultimately the only way to definitively rule ulcers in/out is with scoping
- Performed under standing sedation
- Requires fasting for 8-12 hours
 - If an outflow obstruction is present may be longer (generally part of the pathology – masses/cancer)
- Risks:
 - Mild colic signs – can get a gas bubble
 - Nosebleed – self-limiting
 - Worsening ulcers?

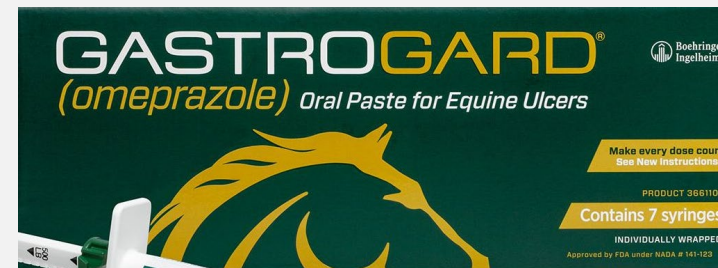




DIAGNOSTICS

TREATMENT

- Medications
 - Gastrogard: Only FDA approved medication to treat squamous gastric ulcers in horses
 - Omeprazole – a Proton Pump Inhibitor = reduces acid secretion (works the same as Prilosec)
 - Ulcergard: same medication with a label for prevention = different dosage
 - Must be administered on an empty stomach – usually 1st thing in AM 30-40min before feed or other medications.
 - Sucralfate: Binds to surface of ulcer and stimulates/speeds healing while providing protection
 - Can bind other medications



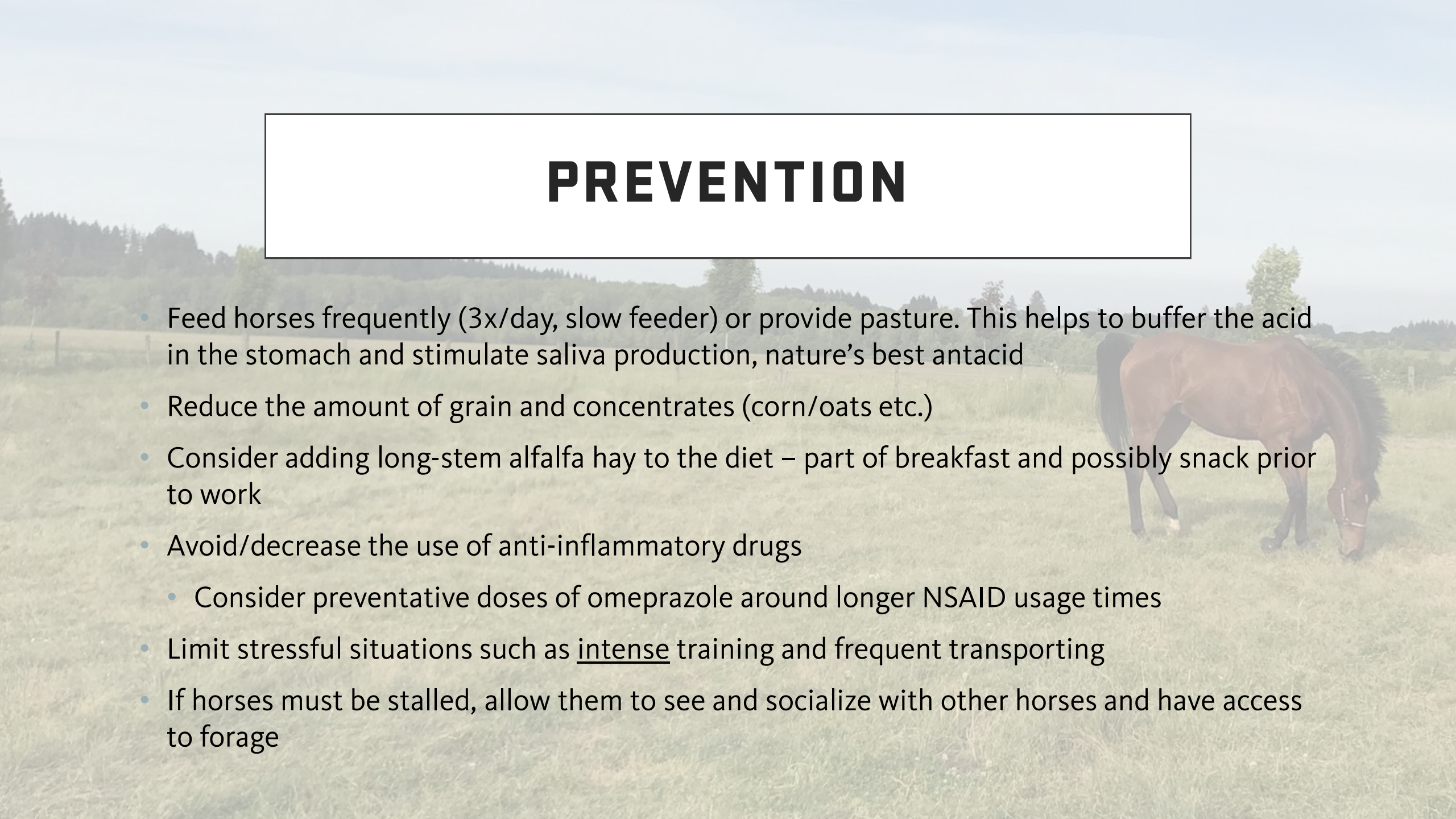
TREATMENT

- Medications

- Cimetidine (Famotidine/Ranitidine): H2 antagonist – another type of acid suppressing medication (Zantac was a related human product)
 - Has variable oral absorption in horses
 - Generally considered to be less effective compared to omeprazole but can be easier to administer
- Misoprostol: Prostaglandin E1 analog – reduces acid secretion and specifically helps heal glandular ulcers
 - Commonly used to treat glandular ulcers in the stomach and right dorsal colitis
 - Side-effects are a little more common and can include mild colic signs and diarrhea



PREVENTION

- Feed horses frequently (3x/day, slow feeder) or provide pasture. This helps to buffer the acid in the stomach and stimulate saliva production, nature's best antacid
 - Reduce the amount of grain and concentrates (corn/oats etc.)
 - Consider adding long-stem alfalfa hay to the diet – part of breakfast and possibly snack prior to work
 - Avoid/decrease the use of anti-inflammatory drugs
 - Consider preventative doses of omeprazole around longer NSAID usage times
 - Limit stressful situations such as intense training and frequent transporting
 - If horses must be stalled, allow them to see and socialize with other horses and have access to forage
- 
- A brown horse is grazing in a grassy field. In the background, there is a line of trees and a clear sky. The overall scene is a peaceful rural landscape.

SUPPLEMENTS

- Poorly regulated field
- BUT – some work well in some cases, ultimately lots of trial and error
- Some common ones out there:
 - Platinum Gastric Support: Pre and post-biotic – Fermaid® Ease187
 - Purina Outlast: Buffering agent (magnesium and calcium)
 - Smartpak SmartGut Ultra: Combination of a few supplements (buffer, anti-inflammatory)
 - Gut-X: HA liquid supplements have also been shown to help prevent gastric ulcers.
 - SeaBuck 7 Equine supplement: has been shown to help reduce risk of glandular ulcers.



QUESTIONS?

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