Equine Gastric Ulcer Syndrome (EGUS)

South Shore Equine Clinic and Diagnostic Center

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Equine Stomach

- Non-glandular region
- Glandular region
- Fundus
- Antrum
- Greater curvature
- Margo Plicatus
- Esophagus
- Lesse curvature
- Duodenum
Gastric Ulcers

• Up to 93% of racehorses have stomach ulcers.
• Almost 60% of other performance horses have stomach ulcers.
• Up to 57% of foals have ulcers, usually during the first 3 months of life.
• 50% of horses with ulcers show no outward signs of gastrointestinal disease.
Gastric Ulcers

• Acid is normally produced 24 hours a day in the horse’s stomach.
• When too much acid is produced, ulcers result.
Risk Factors

• Feeding
• Training
• Physical Stress
• Changes in Growing Foals
• Other Factors
Some people are betting all their savings on me... I can't handle the pressure anymore...
Diet

• Horses are designed to eat roughage steadily throughout the day.
• In the wild, horses spend 75% of their day grazing and eating.
• Domestic horses spend only about 15% of their time eating.
• Excessive amounts of grain and low amounts of roughage predispose horses to ulcers.
Training

• Intense training increases acid production in the stomach.
• Performance horses go without feed several hours per day, permitting acid build-up.
• Exercise reduces blood flow to the stomach.
Physical Stress or Illness

• Horses and foals that are sick, hospitalized or in pain often get ulcers.
• The stomach of growing foals is still developing and is easily injured by acid and enzymes.
Other Factors

- Shipping
- Extended time confined
- Certain medications given at high doses
Typical Symptoms

Horses:
• Attitude change
• Dullness
• Poor performance
• Poor appetite/won’t eat
• Colic
• Behavioral changes

Foals:
• Diarrhea
• Poor growth
• Rough hair coat
• Pot belly
• Teeth grinding
• Colic/lying on back
• Excessive salivation
• Interrupted nursing
Diagnosis

- Definitive diagnosis is made by gastroscopy.
- Often response to treatment is enough to make a presumptive diagnosis of EGUS.
- Requires a 3-meter endoscope
- Horse fasted for 12 to 16 hours
- Patient sedated for procedure
Results From Today

- Twelve horses scoped today
- Age range: 2 years to 22 years
- Mares and geldings represented
- Group included competitive Standardbred racehorses, show horses and pet/leisure horses
- Major complaints included not wanting to eat, frequent low-grade colics, decreased performance and difficulty keeping weight on.
Horse 1
2 y.o. STB Mare

• Stabled most of the day
• Trains heavily on a daily basis
• Trailers weekly
• Last raced 6/20/08
• Fed twice daily: grass hay and pellets
• Recently started on generic omeprazole every other day
• Poor appetite
Yes! Grade 3 Chronic Ulcers
Horse 2
4 y.o. STB Mare

- Stabled most of the day
- Trained heavily on a daily basis
- Trailered weekly
- Last raced 7/7/08
- Diet consists of hay and pellets fed twice daily
- Last dose of Gastroguard 2 weeks ago
- Poor appetite
Yes! Grade 3 Bleeding Ulcers
Horse 3
15 y.o. TB Gelding

• Shows year-round, jumps 3’, usually medicated with Banamine for shows
• Turned out on grass for part of the day
• Fed hay and pellets
• Has had a series of mild colics
• All colics occur after feeding
• In good general condition
Yes! Grade 1 Ulcers
Horse 4
21 y.o. TB Mare

- Extensive melanomas
- Long history of low grade to severe colics
- Used for pleasure 4 times weekly
- Turned out on grass for half of the day
- Diet is Timothy hay and pellets
No Ulcers!
Horse 5
22 y.o. Arabian Mare

- Ridden lightly once every three weeks
- Very difficult to keep weight on
- Eats 12 quarts of pellets and 2 flakes of hay daily
- Grazes 2-3 hours per day
- Currently on 1/5 tube of GastroGard daily
- Thin body condition
Yes! Grade 3 Chronic Ulcers
Horse 6
9 y.o. DWB x TB Gelding

- Previously used for cross country, now used for equitation
- History of three injuries this year
- Previously turned out 7-8 hours/day
- Currently on stall rest for leg injury (only 10 minutes of grazing daily)
- Owner reports that he gets very upset when other horses are turned out
- Currently on antibiotics for Lyme disease
- Fed 1.5 quarts pellets and 2 flakes of hay twice daily
No Ulcers!
Horse 7
5 y.o. Arabian Mare

- Extensive history of diverse medical issues
- Decreased performance lately
- Recently changed environments, previously with other horses, now housed alone
- Worked 3 days per week
- Turned out with little to no grazing available
- Owner reports a change in attitude lately
No Ulcers!
Horse 8
5 y.o. TB Gelding

• Ex-racehorse
• Wood chewer
• Chronic lameness
• Owner reports that he is slow finishing hay.
• No known history of colic
• Turned out but little grazing available
Yes! Grade 1 Ulcers
Horse 9
9 y.o. TB Gelding

• Ex-racehorse
• Displays several stereotypic behaviors: paces the fence, chews wood, stifle bites
• Very nervous
• Eats pellets and 5-6 flakes of hay daily
• On U-guard powder
• Turned out but little grazing available
No Ulcers!
Horse 10
19 y.o. TB Gelding

• Stabled 24 hours per day (jumps out of paddocks)
• Very nervous
• Thin, difficult to keep weight on
• Previously showed and competed at a high level
• Currently used for lessons 5 days per week
No Ulcers!

- Stomach had excessive fluid raft present and we were not able to visualize all of the stomach.
Horse 11
13 y.o. Gelding

- Turned out daily for part of the day
- Does not finish meals
- Thin and difficult to keep weight on
- Owner reports that he is grumpy
- Used for lessons and light riding
- On U-Guard twice daily
- Eats Senior pellets, Hay Stretcher and hay twice daily
Yes! Grade 2 Ulcers
Horse 12
9 y.o. TB Gelding

- Thin despite eating high calorie diet
- Ex-racehorse
- No grazing available but has ‘in and out’ access
- Poor shipper
- Walks in circles in paddock
- Good attitude
No ulcers, but irritated stomach lining...
Conclusion

• 6 out of 12 horses presented today had ulcers.
• All grades of ulcers were represented.
• Both racehorses and one aged pleasure horse had severe (grade 3) ulcers.
• We were all surprised with the results!
Questions? Let’s eat!