



Rolling Meadows Animal Hospital

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EQUINE PERFORMANCE NEWSLETTER



EQUINE GASTRIC ULCERS

Go to ANY equine event, from a local trail ride to an upper level dressage show, and chances are strong some of the horses present are suffering from gastric ulcers. No horse is immune to the problem; given the right circumstances ANY horse can be affected.



CLINICAL SIGNS

The textbook horse with gastric ulcers has a poor appetite and does not gain weight. But the majority of horses don't read the textbook. Most have more subtle symptoms, such as decreased performance, saddle issues, poor hair coat or an attitude change. More serious cases will show abdominal pain (colic) and/or bruxism (grinding the teeth).

HOW DO GASTRIC ULCERS AFFECT THE WHOLE HORSE?

The obvious answer is they cause discomfort, but it goes way beyond just pain. By looking at what gastric ulcers do to the horse from a Chiropractic and Chinese Medicine perspective, gastric ulcers are much more than just pain in the stomach.

Have you ever been nauseous when you had back pain? Or had your back hurt when you had a GI upset? These are normal reactions in the body. When a horse has pain in the stomach they also can have spinal and muscle issues.

Kerry Ridgway DVM of the Equine Therapeutic Options & Equine Wellness Institute in Aiken, SC feels all horses with gastric ulcers

develop areas in the spine that require adjusting. These areas include the low withers, upper lumbar and the SI joints. Further, these vertebral subluxation complexes --VSC's (what chiropractors adjust) cause problems in muscle groups of the neck, shoulders, back and hind quarters.

This is nothing new to human chiropractors who have known for years that gastric ulcers caused pain in the upper back, upper lumbar area and neck.

Chiropractic adjustments can address all these spinal and muscle issues, and, from a pure chiropractic perspective, can help the body heal the ulcers more rapidly.

Shen Huisheng Xie, DVM, PhD of the University of Florida and the CHI Institute in Reddick, FL looks at gastric ulcers from a TCVM (Traditional Chinese Vet Med) approach. He feels gastric ulcers may be diagnosed by feeling a series of sensitive acupuncture points. These points are located on the head, along the back and along the middle of the horses' belly. 90% of the horses showing reaction on these points will have gastric ulcers.

CAUSES of Gastric Ulcers

Most people believe stomach ulcers only occur in horses undergoing strenuous training. This is not true. There are many factors that can increase THE chance of developing an ulcer but no horse is immune.

- Strenuous exercise can cause ulcers by slowing both the emptying of the stomach and blood flow to the stomach. This, along with the stress of training is how heavy training can lead to ulcers.
- Stall confinement can lead to the development of gastric ulcers. When horses are fed two times per day, the stomach is subjected to a prolonged period without feed to neutralize the acid. A horse produces digestive acids all the time, even when the stomach is empty. If there is no food to digest, these acids can irritate the stomach lining. If a horse has an empty stomach, he is at risk for ulcers.
- High-grain diets produce volatile fatty acids that can also contribute to the development of ulcers.
- Certain medications, such as Bute and Banamine can lead to gastric ulcers in some cases. Traditional non steroidal anti-inflammatory drugs (NSAIDs) such as phenylbutazone (Bute) and flunixin (Banamine) decrease both COX-1 and COX-2 enzymes. COX-2 enzymes cause inflammation and pain in the body, while the enzyme cyclooxygenase-1 (COX-1) is associated with beneficial functions, including production of

the protective mucous lining of the stomach. The loss of this lining can lead to ulceration. These drugs are known to cause ulcers, gastrointestinal bleeding, and kidney damage with prolonged use or high doses. *** EQUIOXX is an anti-inflammatory drug formulated to be easy on the GI system. (It targets COX-2 only.) Consider using it instead of Bute or Banamine for long term care.***

- ANY stress (both environmental and physical) can increase the likelihood of ulcers. In a recent study, 10 horses were hauled for 4 hours to an unfamiliar location where they stayed for 3 days and were ridden normally. The purpose of this 3-day stay was to simulate hauling to a 3-day show. Control horses stayed home and were also ridden normally. (All horses were examined with an endoscope before the study and no ulcers were detected.) After the 3 days, seven of the 10 horses that were hauled had ulcers, while only two of the horses that stayed home were affected.

DIAGNOSIS of Gastric Ulcers

While clinical signs and history can point you in the correct direction for diagnosing gastric ulcers, the only way to definitively diagnose gastric ulcers is through gastroscopy. This involves placing an endoscope into the stomach and looking at its surface. The ulcer is then graded for severity.

MEDICAL TREATMENT of Gastric Ulcers

Since excess acid exposure is the main reason behind ulceration, most veterinarians turn to anti-ulcer therapies with the aim of suppressing or neutralizing gastric acid.

H2 antagonists (such as ***ranitidine***) can successfully raise the gastric pH and resolve gastric ulcers in foals and adult horses. But the degree and duration of acid suppression by H2 antagonists varies from horse to horse.

Proton pump inhibitors (such as ***omeprazole***) have been effective in healing gastric ulcers. These drugs actually decrease the release of acid allowing ulcers to heal. ***Gastrogard*** (omeprazole) is the only FDA approved omeprazole available for horses. Formulated versions have been used with clinical success but unbiased scientific data is lacking.

Sucralfate is effective in treating peptic ulcers in humans, but its efficacy in treating ulcers in the horses is unknown. Sucralfate may be

effective for treating stress-induced ulcers in neonatal foals, but so far, there's no clinical evidence to support that theory.

Antacids (bicarb, Tums, etc.) can reduce gastric acidity in horses, but their effects are short-lived (last for approximately two hours) and require large doses several times a day. They probably provide very little help.

There are **herbal preparations** available for treatment and prevention of ulcers. These must be fed at least twice a day during the treatment phase to be effective.

MANAGEMENT FOR TREATMENT & PREVENTION OF GASTRIC ULCERS

There are several basic management ideas you can use to decrease the likelihood of gastric ulcer formation.

- ✓ Decrease stress in a horse's life, both social and physical. (Good luck!)
- ✓ Feed alfalfa hay or a mix of grass and alfalfa hay to act as a stomach buffer.
- ✓ Keep hay in front of a horse at all times when possible or turn out on pasture to prevent long fasting periods and to keep the horse chewing, which stimulates production of buffering saliva.
- ✓ Feed no more than five pounds of grain per feeding and no more frequently than every five to six hours. Use low carbohydrate feeds if possible.
- ✓ Some sources suggest corn oil at 1 cup twice a day.
- ✓ Be aware of the role medications can play in gastric ulcers.
- ✓ Consider herbal preventatives.

Be aware of the potential for a problem. Also be aware that horses can also get lower intestinal tract ulcers that are very important. Not every horse with behavioral issues will have a gastric ulcer, but the incidence is high.