

## Recurrent Colic – Could Gastric Ulcers be the Cause?

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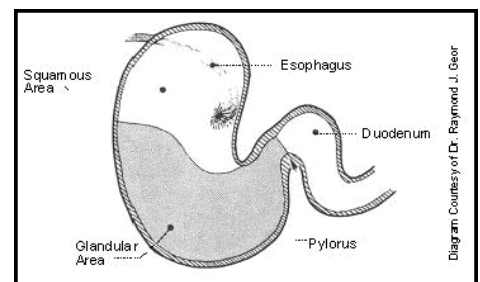
Dr. Jessie Evans

The complaint is quite common: “My horse has colicked multiple times over the last 2 months. The colics are not severe, but what’s wrong with him?” Although colic can result from many factors (diet, lack of water intake, weather, stress, parasites, systemic disease), recurrent mild colics may be the result of equine gastric ulcer syndrome (EGUS). Recent studies have shown the incidence of gastric ulcers to be much higher than was previously thought. At our Central Oregon clinic, we diagnose multiple cases of gastric ulceration each year.

EGUS can occur in any horse, but is most prevalent in horses in heavy training or stressful situations. Racehorses have an extremely high incidence; some studies estimate up to 90% are affected. Show horses have an incidence of up to 58%. In Spring of 2009, we held a gastroscopy seminar at our clinic, providing a free gastroscopy to several horses for educational purposes. Of the population of examined horses, majority were low stress horses in mild to moderate work with regular turn-out. We had a very low incidence of ulcers in the population examined. Our findings support the practice of scoping horses for ulcers rather than just treating those suspected of having them.

EGUS results in a variety of symptoms, including poor appetite, rough hair coat, recurrent colic, “grumpy” attitude, difficulty gaining weight, grinding teeth, diarrhea (usually in foals only), touchiness near girth area, and poor performance. Horses that are in heavy work, are transported, or are moved to different surroundings all have an increased ulcer incidence. Chronic injury, such as lameness, can also cause a horse to have ulcers due to constant low grade stress. High grain diets and feeding at long or irregular intervals add to the risk of ulcer formation.

Ulceration typically occurs at the junction of the two portions of the equine stomach, called the margo plicatus. In horses, the lower part of the stomach (the glandular stomach) is similar to our own, meaning it is covered in an acid-producing tissue. The upper part of the stomach is more like an extension of the esophagus and is covered with a thicker layer of tissue called squamous epithelium. Ulcers can also occur in the outlet of the stomach, called the pylorus.



Ulceration is diagnosed definitively by performing endoscopy of the stomach. The horse is fasted for 18-24 hours to empty the stomach. While under sedation, an endoscope, which is a long tubular camera, is passed through the nostril and down the esophagus into the stomach. The entire stomach can usually be examined for the presence of ulcers. The severity of the ulcers can also be determined, which helps to dictate the duration of treatment necessary.



Normal stomach



Ulcerated stomach

Although treatment can be lengthy, we have products available that yield excellent results. GastroGard is the most effective drug currently available for ulcer treatment. The active ingredient in GastroGard is omeprazole (the “purple pill”). It is a paste formulation and is given once per day. Duration of treatment varies from four to eight weeks. The downside of this drug is cost, with a full course of treatment running over \$1,200. GastroGard is currently patented by Merial, so no generic form is available. Due to the cost of this medication, we encourage owners that are suspicious of gastric ulcers in their horses to have a gastroscopy performed before treating. Therefore, owners will not be spending money on an unnecessary treatment. Beware of purchasing cheaper compounded forms of omeprazole, as studies have shown that they are much less effective than the GastroGard product.

Another viable choice is ranitidine, which is marketed as Xantac®. Ranitidine is considerably less expensive, but must be administered three times per day, and comes in tablets that must be crushed and mixed into a paste before administration. Its efficacy is not as high as GastroGard, but it is effective in many cases. A variety of other drugs can be used, but all have decreased healing ability compared to GastroGard and ranitidine. Antacids are generally very short-acting, only improving the acidity of the stomach for a couple of hours, so in order to be therapeutic for treatment of ulcers, would have to be given every two hours. They may, however, have a role in prevention of EGUS.

As for preventing ulcers from occurring, we recommend increasing the number of feedings per day (not the total amount being fed). This will allow the horse to have food in their stomach most of the day and decrease the amount of acid build-up in their stomach. Pasture turn-out is great so they can nibble on grass all day long. Alfalfa hay is helpful because it contains calcium which will help buffer the acid in their stomach. Removing grain from their diet is also recommended. Changes in management are necessary to decrease stress. Turn-out is ideal, as horses are not meant to live in stalls. Also, if your horse is prone to ulcers, it is recommended to start them on UlcerGard (a decreased, ulcer preventative dose of omeprazole) a few days before and during a stressful event (trailer, showing, etc.).