



GASTRIC ULCERS

What are Gastric Ulcers?

Gastric ulcers are erosions of the horses' stomach mucosa (inner lining) that occur as a result of excessive exposure to stomach acid. Equine Gastric Ulcer Syndrome (EGUS) varies greatly in its severity from mildly inflamed but still intact mucosa to multiple large erosions that can cause bleeding into the stomach. The most severe form is ulcers so severe that the stomach wall is perforated. Gastric ulcers can affect any age of horse, right from a foal, and can occur in any breed.

Clinical Signs of Gastric Ulceration

The difficult thing about the majority of adult horses with gastric ulcers is that the signs they show are often very subtle and difficult to recognise. Some of the following signs may be seen in an adult horse with gastric ulcers;

- Inappetence
- Weight loss
- Poor performance
- A loss in condition – e.g. poor coat
- Subtle behavioural changes
- Mild low-grade recurrent colic

As you can see, the signs of gastric ulcers are often very subtle but many astute owners will pick up on these changes. A common reason for investigation, especially in a performance horse, is that the owner feels that the horse is “just not quite right” and, in the absence of other disease, gastric ulcers may be the answer. The vagueness of clinical signs could actually be considered a clinical sign in itself when considering this disease.



Fig. 1: Foal with gastric ulceration lying on its back.

In foals, gastric ulceration is usually more obvious. Typical signs in a foal include;

- Excessive salivation (drooling appearance)
- Teeth grinding
- Frequent lying on their back (Fig. 1)
- Poor weight gain
- Reduced suckling
- Occasionally diarrhoea can be seen in a foal with gastric ulcers

How is Gastric Ulceration Diagnosed?

As the clinical signs of gastric ulceration can be so vague, endoscopy of the stomach (gastroscopy) is currently the only technique to achieve a definitive diagnosis of gastric ulceration. This procedure is performed with the horse. The horse must be fasted for 12-24hrs before endoscopy to empty the stomach of fluid and food. A flexible endoscope of at least 3m in length is required so all parts of the stomach can be visualised.

A clinical response to an anti-ulcer medication can be used retrospectively to diagnose gastric ulcers but, due to the expense of treatment, it may actually be more economical to perform endoscopy to get a definitive diagnosis.

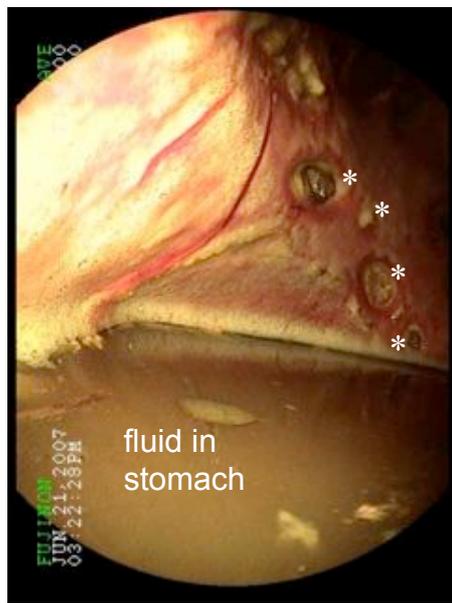


Fig. 2: Endoscopic picture of the stomach lining of a foal with severe gastric ulceration. Multiple, deep ulcers in the stomach lining can be seen (marked with *). Fluid can be seen in the bottom part of the stomach.

What are the Risk Factors for Equine Gastric Ulcer Syndrome?

- **Exercise** and regular competition have been shown to be major risk factors for the development of gastric ulcers in the horse. Even non-intensive training has been associated with an increased risk of gastric ulcer development. A study in 2007 showed that between 58% and 100% of all performance horses in work are affected by gastric ulcers to some degree.

- **Stress** of transportation and stabling are both proven risk factors for gastric ulcer development.
- **Medications** such as phenylbutazone (“bute”) and other non-steroidal anti-inflammatories are known to predispose horses to ulcers by inhibiting gastro-protective factors.
- **Infrequent feeding** has been shown to increase the risk of gastric ulcers. Horses evolved to graze pasture 16h/d and have a constant inflow of food into their stomach. The stomach constantly produces acids to help digest food and therefore when a horse goes long periods without food (such as between morning and night meals whilst it is being stabled) there is nothing in the stomach to buffer the acids being produced, resulting in damage to the stomach lining.

How is Gastric Ulceration Treated?

The treatment of gastric ulcers in the horse is actually surprisingly easy. There are several drugs available, all of which are oral medications. The most effective treatment is a drug called Omeprazole, which is marketed as ‘Gastroguard’, and comes in what looks like a worming tube. It is initially administered at a high dose to treat existing ulcers and then after several weeks the dose is lowered and used as a preventative treatment. This drug is permitted under FEI rules for competition horses but is not allowed under Jockey Club racing rules.

Can Gastric Ulcers be Prevented?

You can certainly go a long way in reducing the likelihood of your horse developing gastric ulcers by bearing in mind the common risk factors and following some of these helpful hints;

- Divide your horse’s feed into smaller portions and feed more frequently
- Allow free access to grass or hay
- Consider dividing large hay nets into several smaller ones so they take longer to eat
- Try to reduce high carbohydrate diets
- Consider using ulcer preventative medications during risk periods such as during the competition season or prior to transport

If you are concerned your horse has gastric ulcers, or wish to book endoscopy to check for ulcers, please call the Dick Vet Equine Practice in 0131 445 4468.