Colic

Opinion: It is our opinion that many colic cases in horses can be attributed to varying degrees of gastric ulceration.

Symptoms: Many horses are affected by slightly painful episodes in the late afternoon that respond to walking, and particularly to feeding, after a walk has reassured them.

Clinical colics: Those cases that do not offer a specific vet diagnosis and respond very quickly to standard therapy.

Management: A careful study of the animal's local environment, including exercise pattern, personnel and paddock time must be conducted.

Feeding: The horses' stomach must not be allowed to empty and this can initially be achieved by four times daily feeding of concentrates, with each meal being the same in volume and mix, and regular grass. As the evidence is clear that many horses are sensitive to maize, every effort should be made to remove this from the diet of problem horses.

Treatment: There are several approaches that may be considered:

Clinical cases may benefit from **COLIC-ECO –** FOLLOWING VETERINARY ADVICE- by dosing orally with 5ml every thirty minutes until comfort is achieved and/or veterinary attention has arrived.

Gassy colics will benefit from additional therapy with **ECO-ULCER** on the same basis and at the same time as above.

Impaction colics will enjoy the improvement in bowel motility that can be achieved by concurrent therapy with **ECO-LAX**.

Chronic colic: The management of the horse with a tendency to chronic colic does involve regular study and control of stable activity and also may require routine therapy as below:

1. Feed concentrates initially at four times daily with each meal being the same mix and volume. Always ensure that this is maize free. Arrange for grass to be given on a regular basis throughout the day. It is possible to feed these horses well if these basic guidelines are followed.

2. Treat with **ECO-ULCER** initially at five ml orally before each meal for one week. After this period the horse may receive three meals daily and have five ml of ECO-ULCER before each of them for a further one week period. Continue with ECO-ULCER at five ml before lunch and dinner for a further week, but always maintain the three times daily feeding. Begin gradually reducing the dose of ECO-ULCER to four ml, then three ml, then 2ml, still on a twice daily basis.

You will be able to take most horses off medication completely, but always consider a top up dose when a change to a more stressful situation takes place, such as before and after travelling to shows, deworming etc.

3. Regularly give all horses a single 5ml dose of **ECO-LAX** on a once weekly basis as an aid in maintaining healthy bowel motility.

WARNING: IT IS ADMITTED THAT COLIC IS A VETERINARY EMERGENCY AND A FULL DISCUSSION ON THE TREATMENT OF EVERY CASE MUST BE INITIATED WITH YOUR VETERINARIAN.

COLIC – THE LONG VERSION

Gastric Ulcers as a cause of colic

Introduction:

It has been estimated that about **ten per cent** of all humans will experience some problems with gastric ulceration during their lives.

It has been estimated that almost **ninety per cent** of all horses will experience similar problems.

The single biggest factor in causing headaches, fear and distress in those of us who own horses is the possibility that our animals will at some time be affected by the scourge of colic.

We have to admit that modern veterinary treatment, particularly to the huge improvement in colic management by means of early surgical intervention, has added a new dimension to treatment of this problem. The costs involved in such problems and the lay off time required for convalescence are still significant areas for concern.

The search does continue for ideas on how to prevent such episodes developing in the first place, and here we present some definite ideas for improving the situation.

Our results over the last six years during the development of the ECO-VET approach to colic has produced exciting results in the treatment of many difficult, expensive chronic cases. The development of **COLIC-ECO** offers the owner, under veterinary opinion, a significant improvement in the early control of pain and in reducing the incidence of more complicated and potentially fatal incidents.

Diagnosis:

The diagnosis of gastric ulceration in horses can be a difficult one, although experience shows that equine clinicians have a high success rate in determining these problems from clinical observation alone.

The more recent availability of flexible endoscopes that allow actual visualisation of the gastric mucosae has provided a simple confirmation of the diagnosis.

History:

Gastric ulceration has probably always existed in animals that are subjected to stress, this being an explanation why the problem is common in captured wild game from eland to rhinocerosus. It is also likely that the problem will be present with our companion animals and us forever. It is therefore worthy of a more detailed look at the problem in general.

Theory:

There does not appear to be any association between stress and the prevalence of gastric ulcers in people, while there is a very clear pattern in the development of such problems in horses associated with physiological stress.

This is particularly obvious where researchers have monitored the endoscopic incidence and development of gastric and duodenal ulceration in foals and horses during training in competitive yards.

There is also a very clear relationship between irregular feeding patterns and a tendency to ulcer formation.

We have to remember that the horse has a small stomach with a quick emptying time. It is divided into sections, these being quite different in their physical organisation.

The Equine Stomach

In the adult horse the stomach has a capacity of about four or five liters although it may stretch under abnormal conditions much greater than this, and can certainly rupture if extended much beyond about 20liters.

There are two types of linings in the stomach. On the top is the smaller, about 1/3^{rd,} non-glandular or squamous lining; on the bottom is the glandular lining.

The glandular portion of the stomach contains glands that secrete bicarbonate, hydrochloric acid, pepsin, and mucus. Hydrochloric acid and pepsin are the chief components involved in breaking down ingested food.

Ulcer problems usually develop in the non-glandular lining presumably because it has little protection against the acid that is produced in the lower portion of the equine stomach. The acid is very strong and the glandular portion of the stomach has its own in built protection against it, to prevent self-digestion.

It has been established that if acid does come into contact with the non-glandular mucosa, damage occurs rapidly, often within hours.

Eating:

The food a horse consumes, and the time taken for the food to be eaten, appears to have a major influence on keeping acid levels normal, which as a result, determines

whether ulcers will develop. Horses, which graze at pasture, seem to have the fewest problems with ulcers, although these horses also seem to be the least stressed.

Research has demonstrated that when out living horses are brought into a stabled situation, they can develop lesions in the stomach within days, in spite of the fact that they have a constant supply of grass. It is a fact that out living horses spend many hours foraging for grass. This ensures that the small stomach is kept regularly full. We all know how quickly some stabled horses can munch through teff nets. Another factor involves the feeding of concentrates in addition to grass for stabled horses. Much of the horses energy requirements are satisfied from grain, resulting in a reduced need for grass. As a result, they are not going to eat as much grass, even when it is offered on a free-choice basis.

Less time is required for the horse to eat a feed of grain than it does hay, so the horse spends less time eating. The stomach is empty for longer periods, and, thus, is open to attack by the always-present hydrochloric acid.

Bacteria:

A key factors in human stomach ulcer production is the presence of bacteria called Helicobacter pylori. Studies have shown that nearly all human ulcer patients have this species of bacteria in their stomachs. The bacteria damage the cells lining the stomach. The ensuing damage makes them more vulnerable to attacks by acid. No evidence exists yet that Helicobacter pylori is implicated in equine ulcer development. Antibiotics are effective in killing the responsible bacteria in humans and, thus, helping to clear up the ulcers. Antibiotics do not have a part to play in the treatment of equine ulcers.

Stress:

It is now realised that, psychological stress is not part of the disease process causing ulcers in humans. People with high-stress jobs do not have a higher incidence than those in non-stressed jobs. It is, however, well established that the stress of training in horses is clearly an important factor in gastric ulceration and colic, particularly in Thoroughbreds.

Several studies have demonstrated that nearly 90% of Thoroughbreds in training have some damage in the stomach, while Murray observed that in almost half of those with damage, the presence of actual ulceration was confirmed.

Why horses in race training develop more ulcers than any other horses is unclear. A number of factors such as age, and feeding regimens associated with high grain intake are important factors.

Pathology:

Ulcers develop when the balance between the active and protective factors present on the lining of the stomach is disturbed. The culprits here are hydrochloric acid and pepsin, while some of the protective factors include the mucous-bicarbonate barrier, prostaglandin, blood supply to the stomach, and growth factors that encourage the development of blood vessels and healthy mucosal development.

Clinical symptoms

There are a number of factors that point to a diagnosis of gastric ulceration in horses:

The horse is nearly always a thoroughbred, is often a filly and usually is described as having a pleasant personality.

Often the owners are dissatisfied that the horse does not look as well as they wish, that it could eat better, that it could carry more weight.

A tendency to colic that may follow this pattern:

Late afternoon, mild attacks, will lie down but respond to attention

Irritability prior to feeding that does improve with eating

Vague veterinary diagnosis such as slight impaction or "a bit gassy"

Chronic colic is consistent with ulceration.

Discomfort or weight loss after the stress of shows or transport.

Any horse that colics more than twice in a six month period should be evaluated for possible gastric ulceration.

Control:

There are a number of issues here to consider:

1. **Management** of these cases to improve stress levels, is the first consideration.

What can be done to allow the animal to cope better with life?

Will moving to another stable help?

Will changing the groom help?

Will a move to another yard help?

Will a change in paddock time or companions help?

Will exercising at a different time help?

Will changing the rider help?

Lots and lots of TLC is significant.

2. A change in the **feeding patterns** will also have to be considered.

Can grass be fed ad lib or at more regular intervals?

Will feeding four times daily help?

Can this horse be fed first, before the others, in an effort to slow down acid production from anticipation?

3. Medical treatment may be required and this will be involved along these lines:

Standard vet approach when animal actually is in pain, bearing in mind that many anti-inflammatory drugs further irritate the gastric mucosae.

Short or long-term therapy designed to alter the situation permanently, and this will be either cimetidine or homoeopathy.

Conclusion:

It is likely that much of the unacceptably high incidence of colic, and particularly chronic colic in horses is related to gastric ulceration.

It is also very clear that we as owners must make a considerable effort to consider how best to manage this problem.