

STOMACH SCOPING (GASTRODUODENOSCOPY) IS CRUCIAL TO GETTING THE BEST PERFORMANCE FROM YOUR HORSES

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WHY do we get worried about ulcers in horses?

Signs of ulcers in the stomach or intestine are often hard to pin down. The intestine includes the first part of the intestine (called the duodenum), which we like to look at in all horses but especially foals; and part of the large intestine (called the colon) in any horse that is on high doses and/or long-term NSAID [eg. Phenylbutasone (bute), flunixin, aspirin, ketoprofen)].

It is important to be concerned about your horse having stomach or even intestinal ulcers if they show signs of:

- 1) **not eating as well** as usual and quite often they will eat hay/pasture, but will not eat the grain and concentrate, or will only eat the latter very slowly
- 2) **losing weight** or not growing as well as they should be. Sometimes horse owners only notice that their horse is just not quite as heavy as they would like for its height and feed intake
- 3) poor **hair coat**
- 4) **soft manure** – “not quite formed”. Of course horse owners and vets have to ascertain whether “green grass” is causing softer than usual manure and recognise that if the horse has acute diarrhoea, it is often an emergency
- 5) bloodwork by your vet is not very accurate – occasionally there will be a **lower than normal pcv** (which relates to the red blood cells) **and albumin** (a type of protein in the blood) – this is because if ulcers are bleeding, the blood is lost into the bowel and then out in the manure
- 6) **not performing** as well as they had been or sometimes when the horse is a very good athlete, riders and grooms can tell because they are “grumpy” – so that’s rather difficult to be certain about!!
- 7) **colic** (definition: any cause of belly pain and it can have many, many causes). Clients should be especially concerned when there is a history of **mild to moderate**, chronic, **intermittent** belly pain
- 8) a history of non steroidal anti-inflammatory drugs usage [**NSAIDs** (eg. Phenylbutasone, Flunixin, Ketoprofen, dipyron, aspirin)]
- 9) **blood in the manure** if the horse has a history of being on NSAIDs (see above) due to a musculoskeletal problem (eg. severe and chronic lameness).

This can be due to bleeding ulcers in the large intestine (specifically in a place called the “right dorsal colon”).

WHAT can we do if we suspect ulcers?

A stomach and duodenal ‘scope (gastroduodenoscopy) is important in foals and performance horses because it allows us to visualise the stomach, including the bottom part of the stomach (called the pylorus) and then the duodenum on most horses. Then, as we pull the ‘scope back, we can examine the oesophagus, as ulceration is sometimes seen in the distal 10-20 cm (usually if the area in the stomach around the oesophageal opening (cardia) is affected with moderately severe ulceration).

We use a very long ‘scope – 2.8-3+ metres long to look in the stomach and duodenum (first part of intestine). The scoping of the stomach, duodenum and oesophagus (tube from throat to stomach) can be performed easily as an out-patient procedure – this means that the horse can come in on the same day as the procedure and goes home about 30-45 minutes after the procedure to let any sedation wear off. Prior to the stomach ‘scope the horse is sedated and then the horse stands through the procedure.

It’s really important to look into the stomach properly, so we have to ask horse owners “to hold their horses off feed” and even off water in the last hours before the procedure. Owners must remember that if they are bringing their horses into the hospital for a “stomach ‘scope” they must not let their horses eat in the float or “have a nibble” when they get off the float. They also need to ensure that a nurse or veterinarian does not put their horse into a stall with feed or even straw (unless the horse is muzzled) until after the procedure. Some clients elect to have the hospital hold them off feed the night before, so that the stomach is really empty and we can have a good look around. At the University of Melbourne, Equine Centre, we like to do the stomach ‘scoping very thoroughly and look in the pylorus (bottom of the stomach) as well, as many more lesions (ulcers) have been found in the pylorus than originally thought in adult performance horses and this type of ulceration often needs some different treatment.

We can’t look into the colon of a horse, except for its rectum (at the very end of the intestinal tract) and that doesn’t help us with colonic ulcer diagnosis. So if we are worried about “right dorsal colitis” (colon ulcers) because a horse has been on high doses and/or a long period of treatment with NSAIDs (eg. bute, flunixin etc.), then we might try to:

- 1) ultrasound the colon on the right top side of the belly and look for a thickened wall
- 2) do a “belly tap” (abdominocentesis)
- 3) do a special scintigraphy (scan), but this is rare.

There are lots of ulcer treatments, but they need to be carefully considered by veterinarians depending on the type, location and severity of ulceration. Other methods that may be useful when setting up a treatment regimen or prophylactic (preventative) regimen include the use of lucerne hay (it is not known whether this is useful in healing ulcers because of its protein or calcium level), corn oil (may modify

the type of acid produced in the stomach), psyllium, and even a small amount of calcium carbonate (limestone powder).

If you have questions regarding your horse and whether it needs gastroscopy, please call the Equine Centre, Werribee, at the University of Melbourne on (03) 9731-2268.

Figure 1: Picture of non-glandular (squamous) and glandular linings of a normal horse stomach. The pale lining is the non-glandular lining and is often the site of ulceration in adult horses. The pink lining is the glandular lining and if this is ulcerated, including the bottom portion, called the pylorus, it can often lead to more severe colic. The line of demarcation between the non-glandular and glandular linings is called the margo plicatus.



Figure 2: Picture of non-glandular (squamous) ulceration that is healing after 21 days of medicine that decreases the acid production. It is still ulcerated, however, the ulcers (red areas in the light pink) are not as deep and they are no longer actively bleeding. The yellow thickened material is hyperkeratosis, which is thickening of the non-glandular lining in response to the ulcers – it is trying to heal, and shows chronicity.

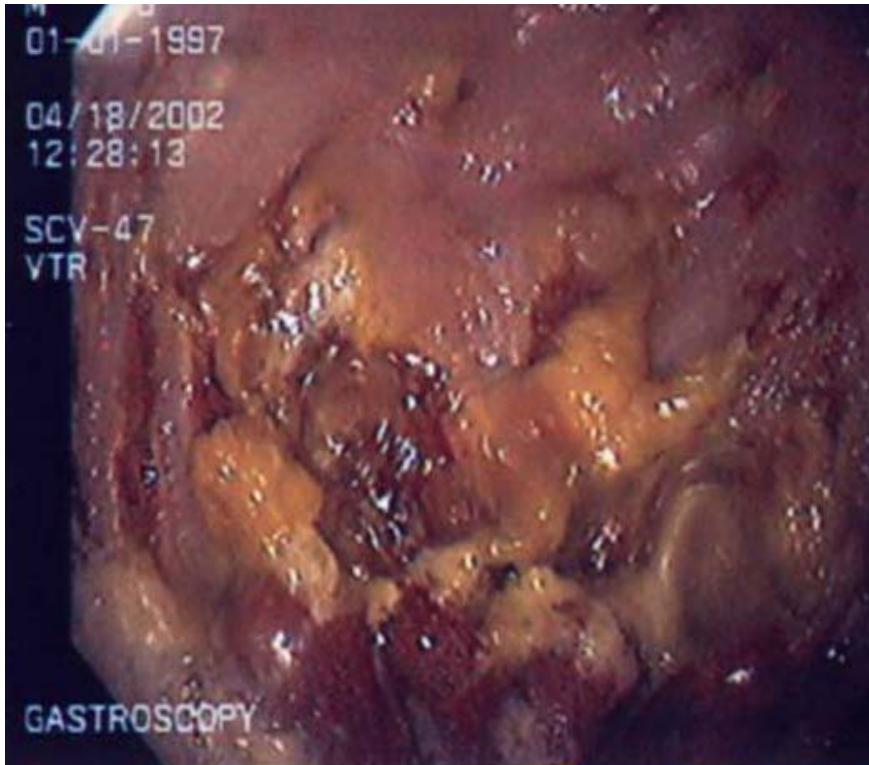


Figure 3: This picture shows a horse's pylorus (bottom of the stomach) – the hole (dark circular region) is the opening into the duodenum (first part of the intestine).



Figure 4: a) This picture shows an abnormal pylorus with reddened, eroded (early ulcers) at 5 o'clock and also 2 o'clock; and b) close-up of some of the ulceration on the folds in another horse's pylorus. There is often a history of colic in horses with this type of ulceration.



b)

