

SIGNS YOUR HORSE HAS GASTRIC ULCERS

Appreciate—but don't rely on—the “classic” clinical signs of EGUS to help diagnose this important condition

It isn't just high-energy Thoroughbreds at the peak of race training that develop equine gastric ulcer syndrome (EGUS). Rather, researchers have shown that no horse is immune to EGUS, as these painful lesions can occur even in backyard leisure horses and in feral animals.

Gastric ulcers can develop in the squamous (upper) or glandular (lower) region of the stomach. Veterinarians refer to those diseases as equine squamous gastric disease (ESGD) and equine glandular gastric disease (EGGD). While both are considered EGUS, they are two distinct conditions with different etiologies and risk factors. To complicate things further, some horses have EGGD and ESGD concurrently.

“EGUS is important to the equine industry because it is an economically draining disease and has important welfare concerns,” says Robin van den Boom, DVM, PhD, Dipl. ECEIM, of the Department of Equine Sciences, Faculty of Veterinary Medicine, at Utrecht University, in the Netherlands. “Gastric ulcers cause pain/discomfort in most horses. And while some horses with EGUS don't show obvious clinical signs or pain, they are ‘happier’ when treated with omeprazole. Finally, stress is a factor in the pathogenesis of EGGD (and possibly ESGD), suggesting that horses with EGGD are exposed to stress.”

Affected horses can exhibit poor performance, behavior changes, dull coats, and decreased appetites and generally seem “not quite right.” But these clinical signs have also been reported for many other conditions, including intestinal parasitism and dental disease, for example. Let's review what science says about classic clinical signs of EGUS.

POOR PERFORMANCE

When athletic horses aren't performing at their best, EGUS frequently gets the blame. “I believe (EGUS) can cause reduced performance,” says van den Boom. “However, a causative relationship between EGUS and poor performance is difficult to prove.”

While EGUS might affect performance, other causes must be considered, given the many factors that potentially contribute to poor performance (Sykes et al., 2015). In the European College of Equine Internal Medicine (ECEIM) Consensus Statement—Equine Gastric Ulcer Syndrome in Adult Horses, authors agreed that few studies had investigated the relationship between poor performance and EGUS.

In a 2009 study Nieto et al. found decreased VO_2 max and VCO_2 max—both indicators of cardiovascular fitness—in Thoroughbreds with experimentally induced ESGD.

In a 2018 study of 109 racehorses, Sykes et al. found Thoroughbreds racing below their expected level were 3.7 times more likely



to have EGGD than those racing at or above expectation, suggesting EGGD is performance-limiting. Gastric pain's effect on stride length and ventilation could result in reduced athleticism, they theorized.

DECREASED APPETITE/BODY WEIGHT/GENERAL CONDITION

Some owners report their horses with EGUS are “fussy eaters” or have markedly reduced appetites. Poor body condition in actively training and competing racehorses frequently gets attributed to EGUS.

“There are many possible causes for poor body condition,” says van den Boom. “For example, Thoroughbreds may simply not be obtaining enough energy from their diet to support their high caloric demands.”

Finally, while horse owners might believe poor coat quality suggests the presence of gastric ulcers, no research supports this assertion.

COLIC

Data suggest horses with EGUS suffer mild, recurrent bouts of colic. In a 1992 study Murray reported that 83% of 111 horses with recurrent colic were diagnosed with gastric ulcers. Of those, 28% responded to acid suppressive treatment, suggesting EGUS management helped reduce recurrent colic occurrence.

Riders have also reported their horses showing signs of abdominal discomfort when tightening the girth. Anatomically, this makes sense.

“Studies have shown that exercise causes increased abdominal pressure, pushing acid up against the squamous mucosa ... a similar mechanism may result from girth tightening,” van den Boom says.

BEHAVIOR CHANGES

Many owners believe nervous horses are more likely to have EGUS than calm ones, though no data support this. In fact, in a 2019 study

Sykes et al. found no difference in EGUS occurrence related to horse temperament.

Authors of the ECEIM consensus statement report an association between crib-biting and ESGD, presumably because the contracture of the abdominal muscles splashes acid onto the squamous mucosa.

Finally, teeth grinding (bruxism) and self-mutilation are reported signs of EGUS, but no data are available to support or refute an association between the two.

SCOPE, DON'T HOPE!

Equine gastric ulcer syndrome might be an easy way to explain away a variety of vague clinical signs, but we can't make the leap from compatible clinical signs to firm diagnosis.

"Gastroscopy is necessary to confirm a diagnosis of EGUS," said van den Boom. "Even if ulcers are found, this does not necessarily confirm EGUS as the cause of the signs. There is no strong epidemiological evidence to support a causal association between EGUS and clinical signs frequently attributed to EGUS."

Clinical Signs of ESGD vs. EGGD

Most early gastric ulcer research did not make a distinction between ESGD and EGGD. "They tended to focus on ESGD," says Robin van den Boom, DVM, PhD, Dipl. ECEIM, of the Department of Equine Sciences, Faculty of Veterinary Medicine, at Utrecht University, in the Netherlands. "Also, shorter scopes were sometimes used, which would not have reached the pylorus and potentially could have missed lesions in the glandular region of the stomach."

In 2019 a British veterinary team (Varley et al.) reported that horses diagnosed with EGGD appeared to present with similar clinical signs as horses with ESGD. In that study the most common owner-reported signs of EGGD in 63 sport horses were poor performance (65%), behavior changes (33%), girthing pain (31.7%), weight loss/poor weight maintenance (9.5%), signs of abdominal pain including colic and teeth grinding (7.9%), appetite changes (6.3%), and coat changes (4.8%).

Sixty-eight percent of horses had two or more of those signs. The two most common combinations were: 1) girthing pain and poor performance and 2) poor performance and changes in behavior.

"The clinical signs reported in that study can strongly suggest the presence of EGUS but still should not be used to make a diagnosis or assess response to treatment," says van den Boom. "Further, clinical signs cannot be used to differentiate between ESGD and EGGD, especially because the two diseases can occur concurrently in the same horse."

He added, "We might be overestimating the clinical significance of EGUS. We regularly see ulcers when we scope horses without clinical signs. We could either be missing the clinical signs or the ulcers are not relevant."

The ECEIM consensus statement authors also recommend gastroscopy to confirm EGUS, rather than diagnosing based on clinical signs.

TAKE-HOME MESSAGE

No clinical signs firmly indicate an EGUS diagnosis. In fact, many horses diagnosed via gastroscopy have no obvious clinical signs, or signs so subtle owners fail to recognize them. While the expense and logistics of performing gastroscopy might make some owners balk, it's the only way to definitively diagnose EGUS, be it EGGD or ESGD.

This Special Report may be reprinted and distributed in this exact form for educational purposes only in print or electronically. It may not be used for commercial purposes in print or electronically or republished on a website, forum, or blog, unless specifically authorized by The Horse. For more horse health information on this and other topics visit TheHorse.com. Published by The Horse: Your Guide To Equine Health Care, © Copyright 2022 Equine Network, LLC. Contact editorial@TheHorse.com.

**Your Natural Game Plan
for Gastric Health**

The advertisement features two side-by-side photographs of a dark horse in a stable. The left photo, labeled 'BEFORE', shows the horse with a thin, emaciated body. The right photo, labeled 'AFTER', shows the same horse significantly heavier and healthier. In the foreground, two bottles of Vitalize Alimend are displayed: a large jug and a smaller pitcher. The Vitalize logo and website URL are prominently shown at the bottom left of the image area.