QUESTION: Does GastroKind Improve Gastroscopic Score of Equine Squamous Gastric Disease in Endurance Horses in Active Training?

Background

- The prevalence of Equine Gastric Ulcer Syndrome (EGUS) in endurance horses is high with reports of 67-93% gastroscopic lesions in competition season[1,2]. The majority of lesions are reported to be equine squamous gastric disease (ESGD)[1,2].
- A supplement that could be used to aid the effective management of EGUS would be useful. GastroKind (Science Supplements) contains a combination of Vitamin E, Vitamin C, yeast powder, fruit pectin, lecithin, magnesium hydroxide and a novel (patented) fruit extract of *Ficus glomerata*.

Aim of Study

To investigate the efficiency of GastroKind for treating ESGD in endurance horses in active training.

Study Design

- *Prospective clinical case series* = a group of horses selected for a particular reason (EGUS in this study) was followed over several months following an intervention (treatment).

Study Outline

Twenty-nine horses in active training at a professional endurance yard underwent gastroscopy for EGUS evaluation[3]. Horses with grade 3 or greater ESGD were allocated treatment with oral omeprazole 4 mg/kg once daily plus GastroKind (Science Supplements) 300 ml twice daily (OMP+GK; 4 horses). Horses with ESGD less than grade 3 were randomly allocated treatment with either GastroKind 300 ml twice daily (GK; 10 horses), oral sucralfate 12 mg/kg twice daily (SUC; 7 horses), or no treatment (NT; 8 horses). Horses were administered treatment for 6 weeks and then re-scoped and scored. One horse receiving NT retired and was therefore not re-scoped.

Study Results

- All 29 horses initially gastroscoped had equine squamous gastric disease (ESGD); 4 horses had Grade 3 ESGD and 25 horses Grade 2 ESGD. No equine glandular gastric disease (EGGD) was observed.
- All horses treated with OMP+GK and GK alone showed an improvement in ulcer score (Table 1). Approximately half the horses administered SUC or NT had an improved ulcer score at second gastroscopy (Table 1).

	OMP+GK (n=4)	**GK** (n=10)	**SUC** (n=7)	**NT** (n=7)
Median ESGD score pre-treatment	3.000	2.500	2.500	2.500
Median ESGD score post-treatment	1.875	1.250	1.500	2.000
Number of horses improving	4 (100%)	10 (100%)	4 (57%)	4 (57%)

Table 1: Median and range of change in gastroscopic equine squamous gastric disease (ESGD) scores in 28 endurance horses following treatment with omeprazole plus GastroKind (OMP+GK); GastroKind (GK), sucralfate (SUC), or no treatment (NT).

- There was no significant difference among pre-treatment ulcer scores of horses administered GK, SUC or NT indicating these horses all started with similar scores.
- Ulcer scores were significantly reduced in the GK group following treatment but not for SUC or NT (Fig. 1, Table 1).
- Post-treatment scores of the OMP+GK group were not significantly different from pre-treatment scores, however the low number of horses in this group limits further interpretation.

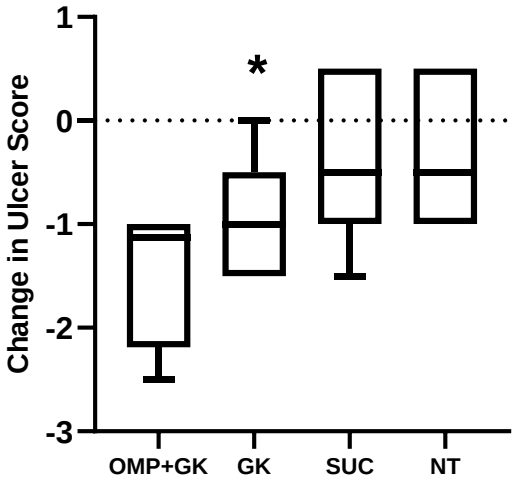

Figure 1: Median (and range) of gastroscopic ulcer scores in 28 endurance horses pre-treatment and 6 weeks post-treatment with omeprazole plus GastroKind (n=4; OMP+GK); GastroKind (n=10; GK), sucralfate (n=7; SUC), or no treatment (n=7; NT). *denotes a significant difference in pre- and post-treatment scores (P=0.004).

Take Home Message

- GastroKind significantly decreased ulcer score in endurance horses with Grade 2 ESGD. Further work investigating the use of GastroKind for treatment of mild EGGD is warranted.

References

1. Nieto JE, Snyder JR, Beldomenico P, Aleman M, Kerr JW, Spier SJ. (2004) Prevalence of gastric ulcers in endurance horses--a preliminary report. Vet J. 167(1):33-7.
2. Tamzali, Y., Marguet, C., Priymenko, N. and Lyazrhi, F. (2011) Prevalence of gastric ulcer syndrome in high-level endurance horses. Equine Veterinary Journal, 43: 141-144.
3. Sykes B.W., Hewetson M., Hepburn R.J., Luthersson N., Tamzali Y. (2015) European College of Equine Internal Medicine Consensus Statement--Equine Gastric Ulcer Syndrome in Adult Horses. J Vet Intern Med. 29(5):1288-99.