Effect of a Supplement on Non-Glandular Gastric Ulcer Scores and Gastric Juice pH

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A supplement (SGU)* added to feed prevents the worsening of nonglandular gastric ulcers in stall-confined horses 2 weeks after discontinuation of omeprazole treatment and lessens the increase in gastric ulcer scores after intermittent feeding, without altering the gastric juice pH. Authors’ addresses: Equine Health Studies Program, Louisiana State University, School of Veterinary Medicine, Baton Rouge, LA 70803 (Andrews, Camacho, Loftin, Garza, Keowen, Kearney); and Tuskegee University School of Veterinary Medicine, Tuskegee, AL 36088 (Gaymon); e-mail: fandrews@lsu.edu. *Corresponding and presenting author. © 2014 AAEP.

1. Introduction
SGU containing botanicals (herbs), coating agents, and natural antacids for horses with gastric ulcers has limited data available on its effectiveness. The purpose of this study was to evaluate the effect of SGU on nonglandular (NG) gastric ulcers scores and gastric juice pH after omeprazole treatment in stall-confined horses.

2. Materials and Methods
This study was performed in racing-age stall-confined Thoroughbreds (n = 8) as a 42-day 2-period crossover design in which all horses received no treatment (untreated controls) or treatment (SGU pellets, 40 g, twice daily). In addition, from days 1 to 14 all horses were treated with omeprazole paste, and then treatment was discontinued. From days 28 to 35, all horses underwent intermittent feed-deprivation. Gastric juice pH was measured and NG gastric ulcer number (NGN) and severity (NGS) scores were assigned by a masked clinician (FMA).

3. Results
After 14 days, NGN and NGS scores significantly decreased (P < 0.05) in both groups compared to those on day 1. On days 28 and 35, NGN scores remained significantly lower in the SGU-treated horses when compared to the untreated controls. By Day 42, NGN and NGS scores were not significantly different in either group. Gastric juice pH was low and variable, except on day 14, when gastric juice pH was significantly higher in both groups due to omeprazole treatment.

4. Conclusions
SGU supplement fed to horses prevented gastric ulcers from increasing in horses after omeprazole
treatment, without increasing gastric juice pH. Supplementation with SGU aids in the protection of the NG stomach from the rebound acid effects after omeprazole treatment is discontinued and in stall-confined horses undergoing intermittent feeding.

Acknowledgments

Conflict of Interest

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Footnotes

aSmartGut® Ultra, SmartPak Equine, LLC., Plymouth, MA 02360.
bGastroGard® paste, Merial Limited, Duluth, GA 30096.