

Risk Factors for Gastric Ulceration in Thoroughbred Racehorses

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Gastric ulceration is a multi-factorial disease of racing Thoroughbreds. We identified physiological and psychological problems that may be important risk factors. Attempts to reduce environmental stress and increase direct horse-to-horse contact may be beneficial strategies. Authors' address: Department of Veterinary Clinical Sciences, School of Veterinary and Biomedical Sciences, Murdoch University, South Street, Murdoch, Western Australia 6150, Australia; e-mail: G.Lester@murdoch.edu.au. © 2007 AAEP.

1. Introduction

Gastric squamous mucosal ulceration (GSMU) impacts the Thoroughbred racing community because of the costs of diagnosis, treatment, and lost earnings. Prevalence varies with activity type and intensity, diet, and housing. The aim of this study was to identify specific risk factors.

2. Materials and Methods

Trainers from several regions took part in the study, and all available horses underwent gastroscopy. Lesions were graded from 0 (normal) to 3 (severe). Horses with a score of 0 or 1 were "normal," and horses with a score of 2 or 3 were combined as "ulcers." One hundred and ninety-one variables were recorded, and the variables with a p value of <0.25 were entered into a multiple logistic regression model.

3. Results

Data were collected from 402 Thoroughbreds and 37 trainers, and 33% of horses had GSMU. Univariate analysis revealed numerous significant effects including trainer and location. Horses trained in an urban envi-

ronment were 3.9 times more likely to have ulcers. Factors retained in the final model positively associated with GSMU were weeks in work, crib-biting, difficulty maintaining body weight, and playing of a radio. Protective factors included training on the property and turnout with other horses.

4. Discussion

GSMU prevalence increases with time in work, and affected horses had trouble maintaining body condition in the face of increasing caloric demands. Stereotypic behaviors were associated with GSMU. There was no measurable effect on performance, but this was not surprising given the multitude of factors that contribute to athletic success. Environmental factors and a lack of horse-to-horse contact seem to contribute to GSMU. GSMU is a multifactorial disease, and elimination of a single factor may fail to impact disease prevalence.

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Research Abstract

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