Evaluation of Catastrophic Musculoskeletal Injuries in Thoroughbreds and Quarter Horses at Three Midwest Racetracks

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The incidence of catastrophic musculoskeletal injuries (CMIs) at these three Midwestern tracks was not significantly different between tracks and was similar to those reported for other racing jurisdictions. There were differences identified between Thoroughbred and Quarter Horse CMIs that may provide insight into mechanisms to prevent CMIs in each breed. Authors’ addresses: Department of Veterinary Clinical Sciences, College of Veterinary Medicine, Iowa State University, Ames, Iowa 50010-1250 (Beisser, McClure); Diagnostic and Production Animal Medicine, College of Veterinary Medicine and the Department of Statistics, College of Liberal Arts and Sciences, Iowa State University, Ames, IA 50011 (Wang); 1052 14th Street SE, Altoona, Iowa 50009 (Soring); PO Box 668, Jones, Oklahoma 73049 (Garrison); and 4063 Iron Works Parkway, Building B, Lexington, Kentucky 40511 (Peckham); e-mail: mcclures@iastate.edu (McClure). †Corresponding author. © 2010 AAEP.

1. Introduction

Few data are available concerning the incidence of catastrophic musculoskeletal injuries (CMIs) in Midwestern racing jurisdictions. Furthermore, there are limited data concerning CMIs in Quarter Horse (QH) racing. The objective of this study was to determine the incidence of CMIs at three Midwestern racetracks for Thoroughbreds (TB) and QHs and to determine whether there are differences between TB and QH CMIs.

2. Materials and Methods

Injury reports from three Midwest racing jurisdictions for TBs and QHs that had CMIs were evaluated. The CMI per 1000 starters was determined for each track in each year. Past performance reports for each horse were used to obtain the descriptive data for each horse.

3. Results

Overall CMI incidence was 1.46, and the rates were similar (p = 0.4066) between the racetracks. Of horses that had a CMI, the TB median age at first start was 3 yr compared with 2 yr for QHs (p = 0.0001). More TBs suffered CMIs in claiming races (p < 0.0001) than QHs; more QHs suffered CMIs in futurity/trials (p < 0.0001) than TBs. The most common site for CMI in TBs was the left forelimb (55.6%), and the majority of QH CMIs involved the right forelimb (60.0%).
4. Discussion

The incidence of CMIs at the three tracks evaluated was not significantly different between tracks and was similar to those reported for other racing jurisdictions. The differences identified between TB and QH CMIs should allow regulatory veterinarians at mixed meets to focus their evaluations on horses and anatomical regions of greatest risk.

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