Humeral Stress Fracture Location and Correlation With Racing Performance

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Humeral stress fracture location and leg affected do not have a significant influence on return to racing. Authors’ addresses: School of Veterinary Medicine, University of Pennsylvania, 382 West Street Road, Kennett Square, PA 19348 (Fawns, Boston, Dallap); Rood and Riddle Equine Hospital, 2150 Georgetown Road, Lexington, KY 40511 (Bramlage, Ruggles); e-mail: nefawns@ucdavis.edu. *Corresponding author. © 2011 AAEP.

1. Introduction
Stress fractures are a major cause of lameness and result in significant economic loss in Thoroughbred racing. The objectives of this study were to determine if fracture location affected return to racing and to describe post-injury racing performance.

2. Methods
Medical records from 103 Thoroughbred racehorses referred to Rood and Riddle Equine Hospital (1990 to 2010) with humeral stress fractures were evaluated; 88 horses met inclusion criteria with diagnosis by scintigraphy or radiography. The influence of fracture location on racing performance was made by evaluating total earnings, total starts, total money, average earnings, highest class racing, and length of time from injury to next race.

3. Results
Seventy of 93 (75%) affected horses returned to racing. Average convalescence was 285 days (median: 242 days). Lesion location had no significant influence on the majority of studied racing variables. Horses had fewer races after injury and dropped in class (p < 0.001) compared with pre-injury performance. Average earnings per start also decreased significantly after injury (p = 0.012). Location distribution was similar for all combinations; the most common leg/lesion was right caudoproximal (20%). Bilaterally affected horses (n = 4) had identical fracture location in both limbs. Horses that represented (n = 5) had identical lesions in the contralateral limb.

4. Discussion
Humeral stress fracture location does not negatively affect return to racing. The significance of drop in class, decrease in number of starts, and total earnings is multifactorial; variables including increasing age negatively affect racing performance.

Research Abstract

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