Prevalence of Radiographic Changes in Yearling and Two-Year-Old Quarter Horses

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There is a high prevalence of radiographic changes seen on pre-sale survey radiographs in young Quarter Horses intended for cutting. Authors' addresses: Gail Holmes Equine Orthopaedic Research Center, College of Veterinary Medicine and Biomedical Sciences, Colorado State University, Fort Collins, Colorado 80523 (Contino, McIlwraith); and Department of Environmental and Radiological Health Sciences, College of Veterinary Medicine and Biomedical Sciences, Colorado State University, Fort Collins, Colorado 80523 (Park); erincontino@yahoo.com. © 2009 AAEP.

1. Introduction

Several studies have reported on radiographic changes in Thoroughbreds and Standardbreds, but there are no such published studies in Quarter Horses. Thus, the objective of this study was to report on radiographic changes in Quarter Horses.

2. Materials and Methods

Radiographs of yearling and 2-yr-old Quarter Horses were obtained from a radiograph repository and a private farm. The carpus, fetlocks, tarsus, and stifles were evaluated, and radiographic abnormalities were categorized by type and location. The frequency of lesions was calculated, and comparisons were made between the two age groups.

3. Results

Of the 458 included horses, 408 (89.1%) had abnormal radiographic findings. The stifle (454; 99.1%) and tarsus (438; 95.6%) were radiographed most frequently. Horses had the most abnormalities recorded in the tarsus (304; 69.4%) followed by the stifle (202; 44.5%), hind fetlocks (155 of 355; 43.7%), fore fetlocks (131 of 361; 36.3%), and carpus (27 of 342; 7.9%). Of the horses with stifle abnormalities, 188 (93.1%) were in the medial femoral condyle. There was a significant difference between the age groups for distal tibia intermediate ridge changes, hindlimb P2 osteophytes, and proximal tibia osteophytes.

4. Discussion

The high prevalence of radiographic abnormalities in stifle and tarsal films suggest these areas warrant further investigation. This study establishes a baseline for what can be expected in the evaluation of pre-sale radiographs of young Quarter Horses. Work is ongoing to evaluate the clinical significance of these individual changes.

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