Fetlock injuries were the most common fatal musculoskeletal injury in Quarter Horse (QH) racehorses, which is similar to findings for Thoroughbred (TB) racehorses. However, carpal bone and vertebral body fractures were more common in QH racehorses.

1. Introduction
Musculoskeletal injuries leading to euthanasia have not been characterized for Quarter Horse (QH) racehorses. The goal of this study was to determine the nature of musculoskeletal injuries in the California QH racehorse population.

2. Materials and Methods
Detailed post-mortem records were retrospectively examined for 451 QH racehorses that died on 15 California racetracks from 1990 to 2007.

3. Results
Musculoskeletal injury accounted for 72% of deaths, and 76% of those injuries occurred during racing. Thirty-nine percent of horses with musculoskeletal injury sustained fetlock injury; proximal sesamoid bone fracture accounted for 33% of the total (46 left forelimb, 51 right forelimb, and 8 bilateral forelimb), and suspensory ligament apparatus rupture accounted for 6% of the total (8 left forelimb, 9 right forelimb, and 1 bilateral fore-
limb). Carpal injury occurred in 24% of horses (53 right forelimb, 13 left forelimb, and 13 bilateral). Vertebral body fracture occurred in 9%, scapular fracture occurred in 8%, metacarpal or metatarsal fracture occurred in 6%, pelvic fracture occurred in 3%, humeral fracture occurred in 2%, and tibial fracture occurred in 2% of horses. Fracture of other bones occurred less frequently. Consistent patterns of fracture were observed within bones.

4. Discussion
Carpal bone and vertebral body fractures are more common in QH than Thoroughbred (TB) racehorses; however, the greatest cause of death for both breeds is fetlock injury. Racehorse occupation (distance versus sprint) may play a role in different skeletal distributions of injury.

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