

Scapula Stress Fractures in Eight Thoroughbred Racehorses

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Scapula stress fractures were seen in Thoroughbred racehorses displaying acute moderate forelimb lameness. Nuclear scintigraphy identified the junction of the middle and distal one-third scapula spine and/or scapula supraspinous fossa as predilection sites for scapula stress fractures. Conservative management resulted in a good prognosis for return to racing, but stress-fracture recurrence may be seen. Authors' addresses: Shotter & Byers Equine Veterinary Services, 18 Smithbook Kilns, Cranleigh, Surrey GU68JJ, UK (Vallance); and Randwick Equine Centre, 3 Jane Street, Randwick, New South Wales 2031, Australia (Lumsden, O'Sullivan); e-mail: stuart_vallance@hotmail.com. © 2007 AAEP.

1. Introduction

The purpose of this study was to review the clinical findings and outcome of eight horses diagnosed with scapula stress fractures.

2. Materials and Methods

The medical records and diagnostic images of all horses diagnosed as having scapula stress fractures between 1997 and 2006 were reviewed. Follow-up was performed by clinical examination, nuclear scintigraphic examination, telephone inquiry, and race-record analysis.

3. Results

Eight cases (median age = 3 yr; six geldings, one colt, and one filly) were examined for acute forelimb lameness (median grade 3 of 5; range = 2–4 on the American Association of Equine Practitioner lameness scale from 0 to 5). All cases were in race training at the time of the onset of lameness, and two of eight horses

had raced during the training period. The injured forelimbs were in a right to left ratio of 1:1.6. Two of eight horses displayed clinical findings indicative of proximal limb pain (pain on scapular neck palpation and resentment to upper-limb abduction). Diagnosis was confirmed by negative response to lower limb nerve blocks in six horses and by presence of marked focal increased radionuclide uptake at the mid-distal scapula spine and/or supraspinous fossa using bone-phase nuclear scintigraphy in eight horses. Ultrasonographic examination identified minimally displaced fractures in two of the four horses examined, which was consistent with the site of increased radionuclide uptake. All cases were managed conservatively by restricted exercise for 3 mo. Six horses have returned to racing (mean time to return to racing post-injury = 9.8 ± 4.1 mo; mean number of starts post-injury = 13 ± 9.7 ; prize money per start before injury = $\$3900 \pm 5515.4$; prize money per start after

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NOTES

conservative management = \$3446.1 ± 4331.4). One horse has not returned to racing because of stress-fracture recurrence at the initial site and is currently convalescing. The owner of the other horse elected to retire the horse to stud. Of the seven horses that returned to training, two experienced recurrent scapular stress fractures at the initial site of injury.

4. Discussion

To the authors' knowledge, a series of scapula stress fractures of the mid-distal scapula spine

and/or supraspinous fossa have not been reported. Scapula stress fractures resulted in an acute moderate forelimb lameness that was seen in Thoroughbred horses undertaking strenuous exercise (~16 m/s). Bone-phase nuclear scintigraphy was integral to the diagnosis, and ultrasonography may be beneficial to image the fracture. Conservative management resulted in a good prognosis for racing return; however, recurrence at the initial scapular stress-fracture site was seen in ~28% of cases.