

Radiographic Survey of Elite Show Jumpers Competing Successfully in the United States

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Elite Grand Prix show jumpers perform successfully with a variety of radiographic abnormalities that are most commonly associated with mild joint disease. Authors' addresses: University of California, Department of Surgical and Radiological Sciences (Puchalski), Veterinary Medical Teaching Hospital (Young), One Shields Avenue, Davis, CA 95616; Hagyard Equine Medical Institute, 4250 Iron Works Pike, Lexington, KY 40511 (Peters); Steinbeck Country Equine Clinic, 15881 Toro Hills Avenue, Salinas, CA 93901 (Tenney); and 9314 Forest Hill Boulevard, Wellington, FL 33411 (Bordeleau); e-mail: smpuchalski@ucdavis.edu. *Corresponding author. © 2011 AAEP.

1. Introduction

Limited information is available to guide practitioners in the evaluation of sport horse radiographs. No study currently exists, and thus, the primary objective of this study is to describe radiographic abnormalities in successful, actively competing show jumpers.

2. Materials and Methods

Forty radiographs of six paired anatomic sites were made of 44 horses placing in the top six of national standard Grand Prix show jumping events in California, Kentucky, and Florida. All radiographs were evaluated for the presence of abnormalities. All abnormalities were reported and graded (fetlocks and tarsi), measured (feet and stifles), or characterized (proximal metacarpus). Each limb was evaluated separately (176 limbs). Descriptive statistics are provided.

3. Results

Radiographic abnormalities were identified in all horses and involved 68 front feet, 56 tarsi, 51 front fetlocks, 45 stifles, and 35 hind fetlocks. The most common abnormalities for each region were, respectively, synovial invaginations (44/88), with 34 cases of invagination measuring <4 mm, tarsometatarsal periarticular osteophytes (43/88), with 34 cases graded 1 on a 0–3 scale, periarticular osteophytes of the metacarpophalangeal joints, measuring <3 mm and graded as 1 on a 0–3 scale in 34 horses and graded as 2 in 17 horses, periarticular new bone on the proximo-medial tibia in 38 stifles, and grade 1 periarticular osteophytes in the metatarsophalangeal joints of 32 limbs.

4. Discussion

Mild radiographic abnormalities were common in this population of successful show jumping horses. Most abnormalities were mild and consistent with osteoarthritis or osteoarthrosis.

Research Abstract

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