Agreement Among Veterinarians for Subjective Evaluation of Lameness in Horses

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A field-ready, objective method of lameness evaluation would be a useful aid to the practicing equine veterinarian. Authors’ addresses: Department of Veterinary Medicine and Surgery, University of Missouri, Columbia, MO 65211 (Keegan, Dent, Wilson, Kramer, LaCarrubba); Weems and Stephens Equine Hospital, Aubrey, TX 76227 (Janicek); Homestead Veterinary Hospital, Pacific, MO 63069 (Walsh, Cassels, Ester); Equine Medical Services, Columbia, MO 65201 (Schiltz); Wilhite & Frees Equine Veterinary Hospital, Peculiar, MO 64078 (Wilhite, Frees, Clark); School of Veterinary Science, University of Queensland, St. Lucia, Brisbane, Queensland 4072, Australia (Pollitt); Eleven Point Equine Clinic, Birch Tree, MO 65438 (Shaw); and All Creatures Veterinary Hospital, Mountain Home, AZ 72653 (Norris); e-mail: keegank@missouri.edu. © 2008 AAEP.

1. Introduction

In 1997, lack of agreement between equine clinicians for scoring of mild lameness was reported. Other studies have concluded similarly that subjective scoring of lameness in horses was only “moderately reliable” or “just within acceptable limits.” However, in these previous studies, subjective evaluations were performed by viewing videotapes of small numbers of horses.

2. Materials and Methods

One hundred thirty-one horses of varying grades of lameness were simultaneously evaluated by an average of 3.2 equine veterinarians. Evaluators scored the lameness using two methods: picking which limbs indicated lameness by observing the horse trot up and down in a straight line and grading each limb on the AAEP scale (0–5) after full lameness evaluation, including flexion tests and lunging in circles. Inter-rater reliability (agreement) was determined by calculation of Fleiss’ kappa (κ). The 95% confidence interval for AAEP lameness score was estimated.

3. Results

Practitioners agreed on the existence of lameness in the forelimbs and hindlimbs ~25% and 15% above chance, respectively. There was little difference in strength of agreement between evaluation methods. The 95% confidence interval for a single AAEP lameness score was ~1.5 grades.

4. Discussion

Agreement between experienced veterinarians performing subjective lameness evaluations is acceptable but low. Agreement for the existence of hindlimb lameness was less than that for forelimb lameness.