Radiography and Ultrasonography for Diagnosis of Osteochondritis Dissecans in the Femoropatellar Joint

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Ultrasonography is a useful adjunct to radiography for diagnosing equine femoropatellar osteochondritis dissecans. Authors’ address: Faculté de Médecine Vétérinaire, Université de Montréal, Montreal, Canada J2S 7C6; e-mail: c_bourzac@yahoo.fr (Bourzac). © 2009 AAEP.

1. Introduction
Osteochondritis dissecans (OCD) lesions of the femoropatellar (FP) joint are routinely diagnosed by radiography, but lesions restricted to articular cartilage can be difficult to see. Ultrasonography (US) allows evaluation of cartilage and subchondral bone.5,6

2. Materials and Methods
Medical records of horses with FP-OCD (1995–2006) were retrieved. Inclusion criteria included availability of both radiographic and US images. Lesion characteristics were evaluated in the trochlear ridges and groove. For assessment of the accuracy of both imaging techniques in the diagnosis of OCD, only cases with an arthroscopic or necropsy examination were studied.

3. Results
Twenty-one horses were included. OCD lesions were diagnosed by radiography (30/32 joints) and US (32/32 joints). Lesion localization was similar on radiographic and US examinations (lateral trochlear ridge [LTR], 29/30 and 30/32 joints; medial trochlear ridge [MTR], 5/30 and 8/32 joints, respectively). All but one lesion seen radiographically were detected with US; two LTR and three MTR lesions, not seen radiographically, were diagnosed by US and confirmed at arthroscopy or necropsy. All LTR lesions diagnosed by US were confirmed by arthroscopy or necropsy. Three of 15 and 1/5 lesions of the middle and distal thirds of the LTR, respectively, were missed.

4. Discussion
US provides valuable information on FP-OCD lesions. However, exact OCD lesion length was difficult to accurately measure when it was greater than the probe length (17/32 LTR and 3/8 MTR).

References
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