Comparison of Radiography and Ultrasonography to Detect Osteochondrosis Lesions in the Tarsocrural Joint

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Osteochondritis dissecans lesions in the medial malleolus and in the distal intermediate ridge of the tibia were more sensitively detected ultrasonographically than radiographically. If performed, radiographic examination of the hock should include the dorso lateral-plantaromedial-oblique 30° view. Authors’ address: Département des Sciences Cliniques, Université de Montréal, 3200 Sicotte, Saint Hyacinthe, Quebec J2S 7C6 Canada; e-mail: frelave@yahoo.fr © 2008 AAEP.

1. Introduction
Osteochondritis dissecans (OCD) lesions of the tarsocrural (TC) joint are routinely diagnosed by radiographic examination, but lesions on the medial malleolus (MM) can be difficult to image and may require the dorso lateral-plantaromedial-oblique 30° view (DLPMO 30°) view. Ultrasonography allows evaluation of cartilage and subchondral bone in the TC joint.

2. Methods
Joints with OCD lesions were evaluated before arthroscopic lesion removal by complete radiographic (dorsoplantar [DP], lateromedial [LM], dorso medial-plantarolateral-oblique 45° [DMPLO 45°], dorso lateral-plantaromedial-oblique 45° [DLMPO 45°], and DLMPO 30° views) and ultrasonographic (longitudinal and transverse scans of the dorsal aspect of the joint) examinations.

3. Results
The sensitivity of radiography for lesions on the MM, distal intermediate ridge of the tibia (DIRT), and lateral trochlear ridge (LTR) was 71%, 96%, and 75%, respectively. Ninety-four percent of lesions on the MM were better detected on the DLPMO 30° view. The sensitivity of ultrasonography to detect lesions on the MM, DIRT, and LTR was 83%, 99%, and 75%, respectively. Ultrasonography was significantly more sensitive than radiography in detecting lesions on the MM (p = 0.02) and DIRT (p = 0.049).

4. Discussion
Ultrasonography was a valuable diagnostic tool to diagnose OCD lesions in the TC joint and was more sensitive than radiography for lesions located on the MM and DIRT. DLMPO 30° was the best view to image lesions on the MM.