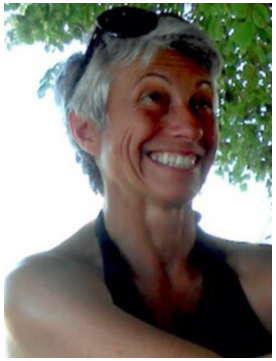
EQUINE POSTERS



EVALUATION OF DISTAL INTERPHALANGEAL JOINT SYNOVIAL EFFUSION ON RADIOGRAPHS: AN EX-VIVO STUDY ON 12 EQUINE FEET

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Introduction
This *ex-vivo* study aimed to establish sensitivity, specificity, predictive values and accuracy of radiographs in detection of DIPJ synovial effusion on 12 isolated feet and to correlate degree of effusion to a radiographic score.

Material and Methods
Seventy-two radiographs were obtained on 12 distal forelimbs of horses euthanized for reasons unrelated to the study. Isolated limbs were placed to simulate standing position. The joint was emptied and 4 consecutive lateromedial views were taken before and after filling the joint with a total of 3, 6 and 12 ml of water. Slightly oblique views were also taken after maximal joint filling. The radiographs were randomized and presented to 4 readers for blinded scoring (0 - 3). Sensitivity, specificity, predictive values and accuracy were calculated on lateromedial views for absence or presence of effusion. Correlation between injected volume and radiographic scores was also calculated.

Results
Radiographs identified synovial effusion with a sensitivity of 0.81, specificity of 0.83, positive predictive value of 0.90 and negative predictive value of 0.69. Accuracy was calculated at 0.82. There was a positive correlation between injected volume and radiographic scores. Non-distended joints had a higher percentage of correct scoring compared to distended joints. A trend toward underestimation of distension was seen on oblique views.

Conclusions
Results of this study suggest that lateromedial view of the equine foot can be considered reliable to assess presence and degree of DIPJ effusion on isolated limbs. However in clinical cases radiography does not allow to discriminate fluid effusion from synovial membrane proliferation.