Proceedings of the
18th Annual Meeting of the
Italian Association of Equine Veterinarians
SIVE

Feb. 3-5, 2012 - Bologna, Italy

Next SIVE Meeting:

Feb. 1-3, 2013 – Arezzo, Italy

Reprinted in the IVIS website with the permission of the
Italian Association of Equine Veterinarians – SIVE
http://www.ivis.org
B-MODE AND POWER DOPPLER ULTRASONOGRAPHY OF THE EQUINE SUSPENSORY LIGAMENT BRANCHES

S. Rabba, DVM, MSc1, S. Grulke, DVM, PhD, Dipl ECVS2, D. Verwilghen, DVM, PhD, Dipl ECVS2, G. Bolen, DVM, PhD, Dipl ECVDI1, V. Busoni, DVM, PhD, Dipl ECVDI1

1 Diagnostic Imaging Section, Faculty of Veterinary Medicine, University of Liège, Liège, Belgium
2 Equine Surgery and Anesthesia Section, Faculty of Veterinary Medicine, University of Liège, Liège, Belgium

Work type: Original Research
Topic: Imaging

Purpose of the work. B-mode ultrasonography (US) is considered essential for a diagnosis of suspensory ligament desmopathies. In human medicine, the presence of Doppler signal is frequently present in painful tendinopathies. The aim of this work was to compare B-mode ultrasonographic findings with Power Doppler (PD) ultrasonographic findings in suspensory ligament branches (SLBs) in horses with and without desmopathy.

Materials and used methods. Nineteen hindlimbs and 15 forelimbs of 13 horses were examined for a total of 68 SLBs. All SLBs were evaluated using B-mode US and PD US. The PD US images with maximal color activity were selected for analysis and subjectively compared with the corresponding B-mode US images.

Outcomes. B-mode US revealed abnormalities in 43 SLBs while 25 had no B-mode US abnormalities. The PD activity was detected in 23 of the 43 SLBs abnormal at B-mode US. In 20 SLBs with abnormalities at B-mode US, PD signal was not detected. None of the 25 SLBs classified as normal at B-mode US showed PD activity. PD score was higher in the lame limb, in acutely lame horses and in SLBs with more severe abnormalities at B-mode US.

Conclusions. The results of this study suggest a potential correlation between PD activity and clinical symptoms, with normal SLBs being PD signal-free and PD signal being more evident in ligaments with hypoechoic areas of lame horses. However, the correlation between the degree of ligament thickening and PD signal and the correlation between PD signal and pain should be further studied.

Bibliography

Corresponding Address:
Silvia Rabba - Diagnostic Imaging Section, Faculty of Veterinary Medicine, University of Liège, B41, Bld. de Colonster, 4000 Sart-Tilman - Liège, Belgium - E-mail silviarabba@virgilio.it

Proceedings of the Annual Meeting of the Italian Association of Equine Veterinarians, Bologna, Italy 2012