

## Research title

**New perspective in diagnosis and management of the equine palmar foot pain syndrome**

**Nuove prospettive nella diagnosi e nella terapia della sindrome da dolore palmare nel cavallo**

## Tutor

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## State of the art and aims of the project

The use of contrast enhanced magnetic resonance imaging (MRI) for detection of podothroclear apparatus injuries is scarcely described. Enhanced MRI have been demonstrated, in few studies, to allow the differentiation of active from chronic lesions and the classification of ambiguous ones. Notably, intrasynovial administration of contrast media (CM) allows a more detailed evaluation of intrabursal adhesions, for which conservative treatments are unsuccessful and different surgical approaches have been proposed. The research project includes the evaluation of the contrast-enhanced MRI sensitivity in detection of podothroclear injuries, especially of the navicular bursa, following different CM administration and the assessment of the effectiveness of the bursoscopic treatment in horses with intrabursal lesions. The feasibility of a direct lateral ultrasound guided approach will be investigated. The final purpose is to obtain a better diagnostic and therapeutic management in horses affected by palmar foot pain syndrome, not responsive to conservative treatment.

## Recent publications of the tutor in the field

1. De Zani D., Rabbogliatti V., Ravasio G., Pettinato C., Di Giancamillo M., Zani D.D.: Contrast enhanced magnetic resonance imaging of the foot in horses using intravenous versus regional intraarterial injection of gadolinium. *Open Veterinary J.*, 8(4), 2018, 471-478.
2. Peretti, G.M., Tessaro, I., Montanari, L., Polito, U., Di Giancamillo, A., Di Giancamillo, M., Marmotti, A., Montaruli, A., Roveda, E., Mangiavini, L.: Histological changes of the meniscus following an osteochondral lesion. *Journal of Biological Regulators and Homeostatic Agents* Volume 31, Issue 4, 2017, 129-134
3. De Zani, D., Polidori, C., Di Giancamillo, M., Zani, D.D.: Correlation of radiographic measurements of structures of the equine foot with lesions detected on magnetic resonance imaging. *Equine Veterinary Journal* Volume 48, Issue 2, 2016, 165-171
4. Di Giancamillo, A., Andreis, M.E., Taini, P., Veronesi, M.C., Di Giancamillo, M., Modena, S.C.: Cartilage canals in newborn dogs: Histochemical and immunohistochemical findings. *European Journal of Histochemistry* Volume 60, Issue 3, 2016, 189-194
5. Biggi, M., Zani, D.D., De Zani, D., Di Giancamillo, M.: Magnetic resonance imaging findings of bone marrow lesions in the equine distal tarsus. *Equine Veterinary Education*. Volume 24, Issue 5, 2012, 236-241