



Previous VET NOTES

- September 2011 - ICSI—cutting edge reproductive technology
- August 2011 - The pre-purchase exam
- July 2011 - Furosemide and exercise-induced pulmonary hemorrhage (EIPH)
- June 2011 - Eastern Equine Encephalitis—have you vaccinated?
- May 2011 - Under tack dynamic respiratory scope
- December 2010 - Equine Piroplasmiasis
- October 2010 - Sand colic
- September 2010 - Vaccines
- July 2010 - Rhodococcus in foals
- June 2010 - Wound Management
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- February 2010 - Cryptorchidism in the horse
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- September 2009 - Flexural deformities in the forelimbs of foals
- August 2009 - Equine Cushing's Disease
- July 2009 - Corneal ulcers

Why do an MRI? - Does it change how we treat the horse? - Does it save money?

It is hard to believe that we live in an age when we can do an MRI on a horse. In human medicine, MRI has become a more common diagnostic tool than x-rays. The reason is that it is able to provide more information about the disease process.



The most common site that we look at in the horse is the foot.

Part of the reason is that the foot is responsible for a majority of lamenesses in performance horses; and another part is that we are limited in specifically knowing what in the foot is the problem, largely because of the hoof wall provides a barrier to some diagnostic tests. The foot includes bone (coffin bone, short pastern bone, navicular bone), synovial structures (navicular bursa, coffin joint), and many tendons and ligaments (deep flexor tendon, collateral ligaments of the coffin bone and of navicular bone, suspensory ligament of navicular bone).

When we isolate a lameness to the foot, usually with a nerve block, all of those structures are blocked. How we treat the problem is really dependent on which type of structure is involved because bone needs a different treatment than a joint, which needs a different treatment from tendons and ligaments. Prior to MRI we could only x-ray the foot. X-rays are good for looking at bone but don't show any other soft tissue structures like tendons, ligaments, or non-bony joint changes. We have very limited ability to ultrasound the foot because the ultrasound machine has a hard time seeing

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through the hoof wall or frog to help us see those other structures. The MRI shows all of the structures mentioned.

How do we treat foot lamenesses when we don't know exactly which structure is the problem? Usually we

treat them with a combination of therapies that may or may not be appropriate.

- Bone problems may benefit from medication to decrease pain or increase blood supply (NSAIDS, Tildren), possibly surgery (neurectomy), possibly staying in work.
- Synovial problems need medication to improve the health of the joint (IRAP, PRP, Direct injection with Hyaluronic acid, Adequan, Legend, Pentosan, oral supplements) and probably a modified work schedule.
- Tendon and ligament injuries need time (often 6 months) and physical therapy so no other work.

It is not hard to see that if you treat a tendon injury with IRAP or Tildren and keep the horse in work, that all you have succeeded in doing is making the injury worse, and spending good money for treatments that have little chance of helping at all. It is also wonderful that we have so many great treatments available, except that many of them are very expensive.

This is why an MRI is the best answer both for the health of the horse and for your budget. It will cost you \$1500-\$2000 to do an MRI. Prices vary for different medications, but it is easy to use corrective shoeing, put the horse on a supplement or two, inject something into some structure and spend much more very quickly. However, the worst part is that the horse may still be lame if the right target is not being shot at, which is of no benefit for the horse or owner.

- June 2009 - Laparoscopic surgery: A new way to look at things
- May 2009 - Equine cardiology
- April 2009 - Single screw compression update
- March 2009 - Resistance to anti-parasitic drugs
- November 2008 - Periodontal Disease
- October 2008 - Interstitial pneumonia - a different kind of lung disease
- September 2008 - The yearling sales
- August 2008 - Eastern Equine Encephalitis—have you vaccinated
- July 2008 - Castration complications
- June 2008 - The use of acupuncture as a diagnostic aid in the equine lameness exam

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