

MRI Case Study 2

MRI Case Study 1 UPDATE

Last month's issue highlighted a 3 year old QH stallion with acute left forelimb lameness. A bony contusion of the dorsal aspect of distal P2 was described (STIR image, bottom). The navicular bursa was injected with hyaluronic acid, triamcinolone and amikacin. The horse was rested for 6 weeks and re-evaluated. Left front lameness had improved one grade, from 2/5 to 1/5. Re-check MRI examination was performed.

In comparison to the previous study, the fluid described in the dorsal distal aspect of P2 had completely resolved (STIR image, top). Two treatments of extracorporeal shockwave therapy applied to the lower pastern region at two weeks apart, followed by injection of the digital tendon sheath and navicular bursa were recommended. The horse will be re-evaluated after six months of rest.

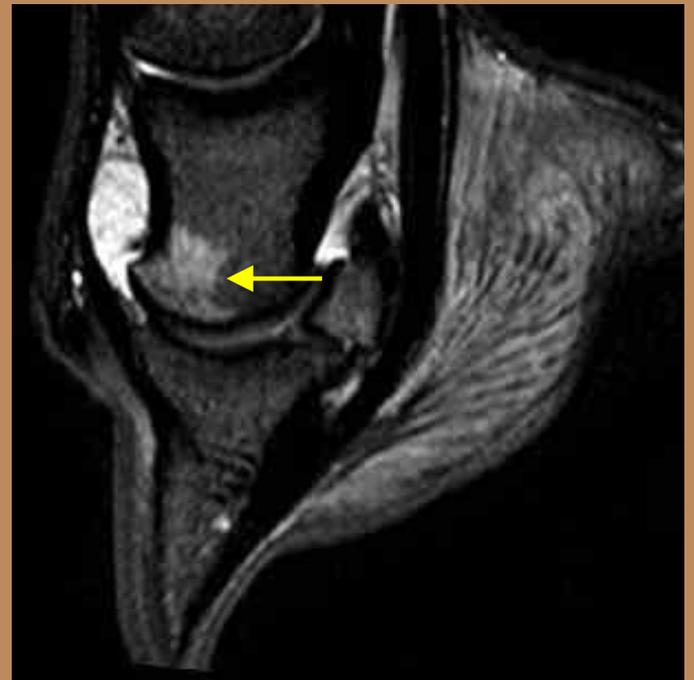
Case Study 2

Signalment/History:

- **7 year Dutch WB dressage mare** with chronic right forelimb lameness (2 months duration).
- On lameness exam, the mare was 2/5 lame on the right front (RF), positive to hoof testers across the right and left front heels, and 1/5 positive on right front distal limb flexion.
- A RF palmar digital nerve block improved lameness approximately 75%, and the mare became 1/5 lame on the left front (LF). A RF abaxial sesamoid nerve block resolved the right forelimb lameness.

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MRI Case Study 1 UPDATE



For questions and comments, or to be removed from our mailing list, contact Dr. Caitlin Lawson at clawson@pioneerequine.com.

**Top: Sagittal STIR image demonstrating resolution of P2 fluid signal;
Bottom: Sagittal STIR image of previous bone contusion in dorsal distal P2**

(Cont. from page 1)

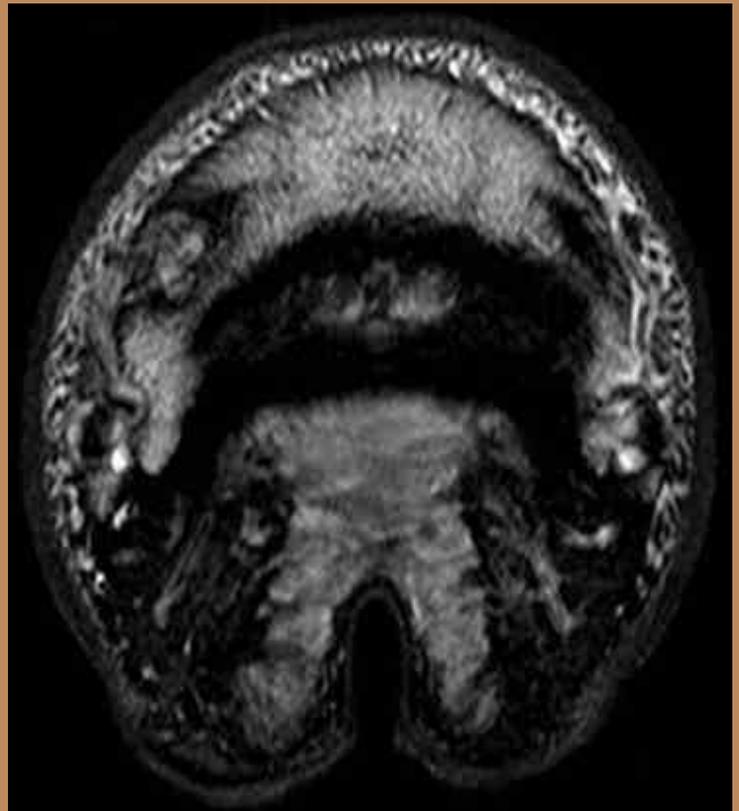
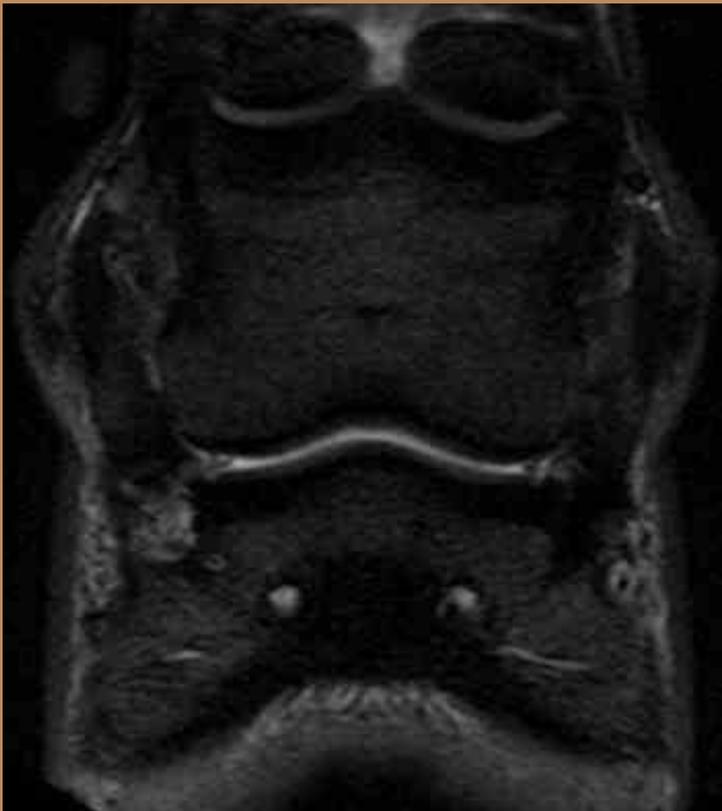
- Left forelimb lameness resolved with a palmar digital nerve block.
- Radiographs of both front feet revealed inadequate heel support. The RF foot hoof-pastern axis was broken back. The navicular bone appeared normal bilaterally.
- The mare was shod with a 2° wedge pad on the RF, 1° wedge pad on the LF, and the toes were 'rockered' bilaterally. Lameness worsened after the application of pads, but improved when the full pads were trimmed to 'rim' pads.
- One month later, the mare re-presented with continued right forelimb lameness, graded 2/5 when circling to the right, trotting on a lunge line. Hoof testers applied to the right front frog produced moderate sensitivity.

- A RF palmar digital nerve block improved the lameness approximately 95%, producing a 1/5 left forelimb lameness.

Summary of MRI Findings: **Right front foot**

- A large osseous cyst-like lesion with cortical and trabecular bone loss is located at the insertion of the lateral collateral ligament of the DIP joint (below, left).
- Extensive fiber disruption of the lateral collateral ligament of the DIP joint at the level of insertion on the third phalanx (below, right).
- Moderate synovitis, capsulitis and arthrosis of the distal interphalangeal joint.

Below: Frontal STIR (left) and axial PD (right) images demonstrating lesion at insertion of lateral collateral ligament of RF DIP joint on P3.

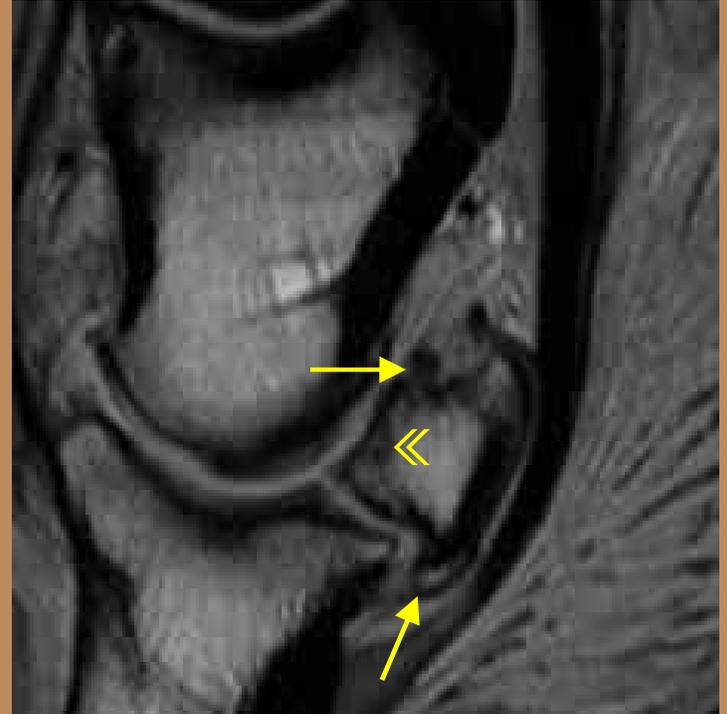


Right front foot (cont.)

- There is elongation of the distal margin of the navicular bone, located on midline at the origin of the impar ligament (right, arrow). Indiscernible from the image shown, the impar ligament is diffusely thickened and scarred.
- Large osteophytes are present on the proximal margin of the navicular bone (right, arrow). There is mild-moderate sclerosis of the dorsal aspect of the navicular bone (right, arrowheads).

Left front foot

- Mild-moderate fiber disruption of the lateral collateral ligament of the DIP joint at the level of insertion on P3 (right).

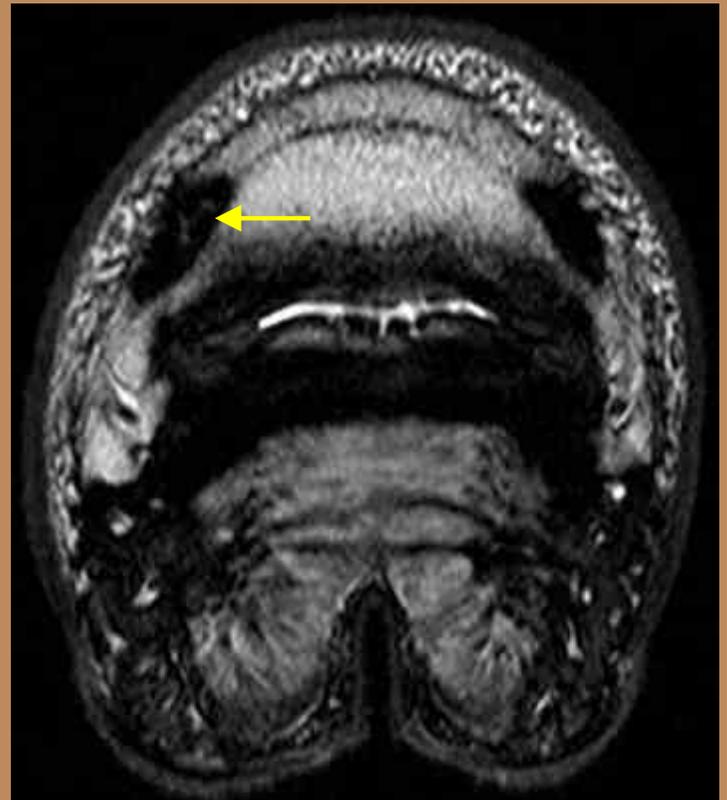


Top right: Sagittal PD image of RF navicular region and DIP joint;

Bottom right: Axial PD image demonstrating fiber disruption of lateral collateral ligament of LF DIP joint

Follow up

- With the MRI findings described, the mare was given a poor prognosis for return to soundness. Treatment options with a period of rest were offered to the owner, who elected to retire the horse.



For more information about Pioneer's MRI or to refer a case, please contact Dr. Luke Bass at:

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A special thank you to Dr. Natasha Werpy for image interpretation on these cases.