

Signalment & History

- * 10 year old TB/Draft gelding used for show jumping
- * Acute right front (RF) lameness, throbbing digital pulse

Initial Lameness Examination:

Examination:

- * 4/5 lame (RF) in straight line. 2/5 when limb on inside of the circle on hard ground

Perineural anesthesia:

- * RF palmar digital nerve block— 20% improvement; Abaxial—Elimination of lameness

Radiology:

- * Routine foot series - No significant osseus abnormalities

Ultrasound of foot and pastern:

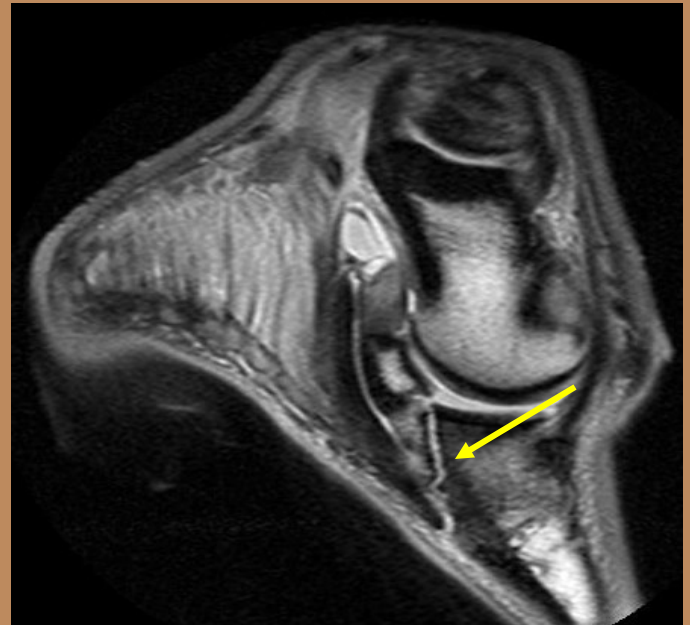
- * No significant findings

Primary Care:

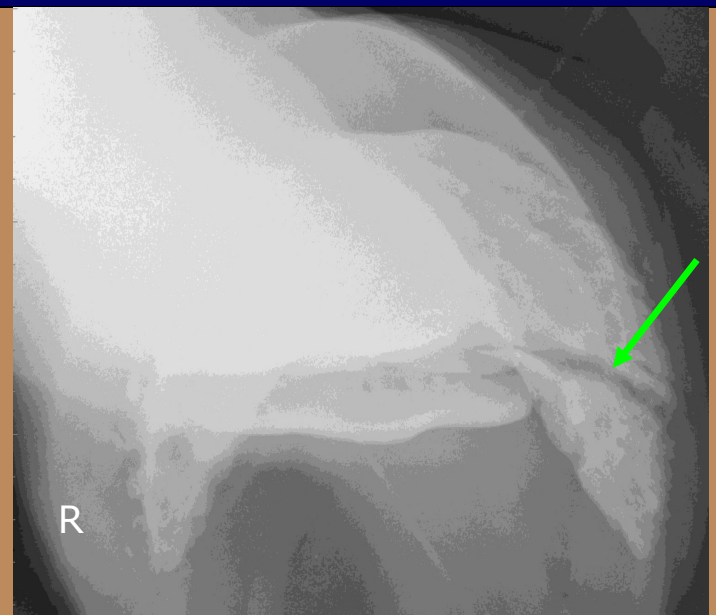
- * rDVM treated for abscess/gravel. Anti-inflammatories improved the lameness at the walk
- * Three weeks later—recheck lameness with similar hooftester response and blocking pattern

Case recommendation:

- * MRI right front foot and pastern



Above: Sagittal PD image showing complete fracture to distal phalanx (yellow arrow). Below: Palmaroproximal 45° medial -palmarodistal oblique view displaying fracture of distal phalanx communicating with the articular surface of the coffin joint (taken after MRI).



MRI Findings

Right Forelimb:

- * Fracture to medial aspect of distal phalanx, affecting the articular margin as well as insertion of DDFT and impar ligament
- * Parasagittal tear to DDFT (medial) at insertion to distal phalanx; medial attachment of impar ligament has horizontal split at fracture line
- * Moderate chronic synovitis (coffin joint) - periarticular osteophyte formation and effusion
- * Bar shoe with quarter clips and steel plate

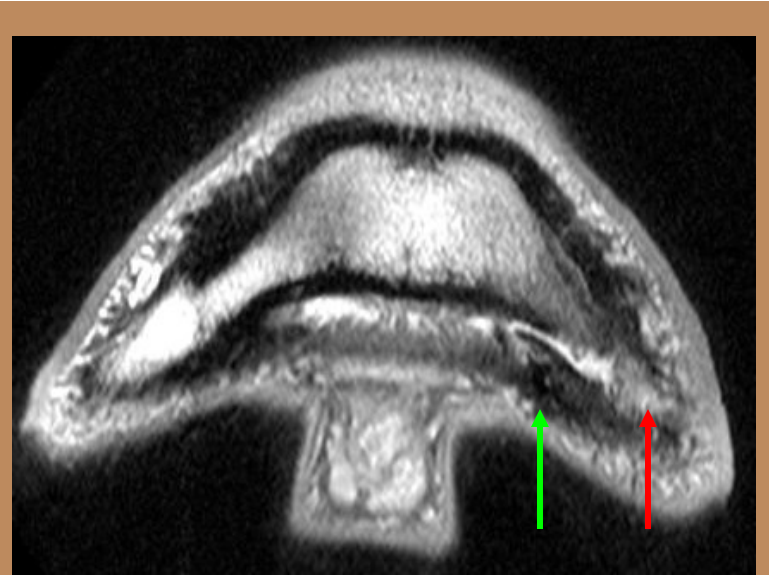
Treatment Plan:

on solar surface was placed to stabilize fracture

- * IRAP: Series of three injections (2 weeks apart) into RF coffin joint
- * Adequan® IM loading regimen and maintenance schedule; Adequan® IA- 4 weeks after third IRAP
- * Stall rest with daily handwalking (10mins) until recheck MRI

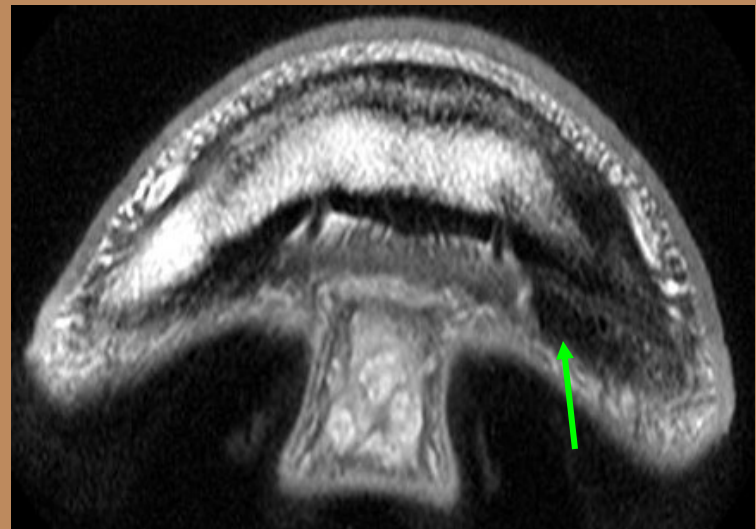
Recheck Examinations: 3 months

- * Due to insurance timeline, recheck MRI was performed in 3 months
- * 2/5 lame RF in straight line
- * Repeat radiograph: Presence of ossification in fracture line. No further displacement in articular margin of coffin joint

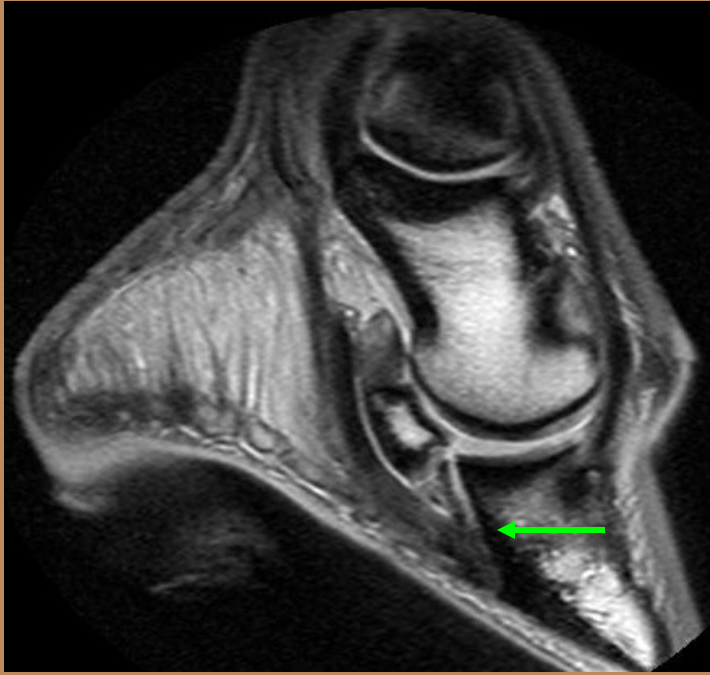


Top: Axial PD image of tear in DDFT at its insertion to distal phalanx (green arrow) with adjacent bone sclerosis (red arrow)

Bottom: Recheck MRI -Axial PD image of DDFT lesion - improved but not resolved (green arrow); fluid in distal phalanx has resolved.

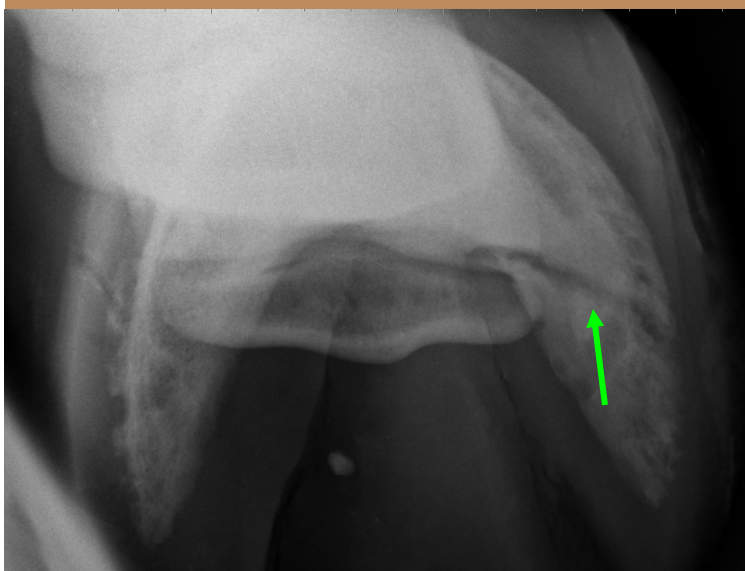


Recheck Radiograph and MRI:



Above: Recheck MRI—Sagittal PD image showing ossification and/or fibrosis of the distal phalangeal fracture gap.

Below: Recheck radiograph—Palmaroproximal 45° medial –palmarodistal oblique view shows ossification is visible at fracture line.



Repeat MRI Findings:

- * Ossification and/or fibrosis of fracture gap at the abaxial or peripheral aspect
- * Soft tissue lesions (DDFT & impar insertional) improved by not resolved
- * Fluid in navicular bone and distal phalanx resolved
- * Coffin joint synovitis (improved effusion and synovial proliferation)

Conclusions:

- * Improvement, but not resolution is appreciated in initial findings
- * Monitor fracture with clinical assessment and radiographs
- * Recheck MRI in 5 months to assess articulation and soft tissue lesions if lameness has not improved
- * Case illustrates use of non-routine radiograph views to locate fracture of distal phalanx and additional soft tissue considerations when fracture of distal phalanx is diagnosed

For more information about Pioneer's MRI or to refer a case, feel free to contact Dr. Luke Bass at Pioneer Equine Hospital, Inc.

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