ProtonVet
VETERINARY RADIOLOGY

MRI REPORT

REFERRING CENTER

Referring hospital: [redacted]
Referring vet:
E-mail:
Tel:

PATIENT INFORMATION

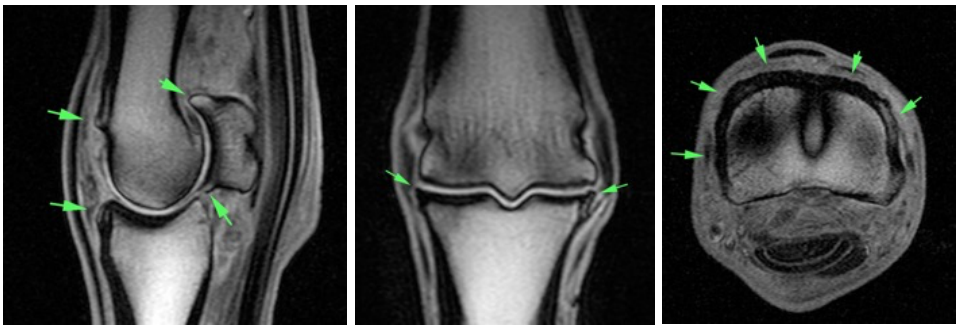
owner: [redacted] Patient: [redacted]
Species: Equine breed: X Sex: Age:
History: Left forelimb (LF) lameness that is abolished with a low four-block. Referred for fetlock MRI.
Region: LF Fetlfock

INFORME RADIOLÓGICO

Technical comments: MRI examination of the LF fetlock. Protocol:

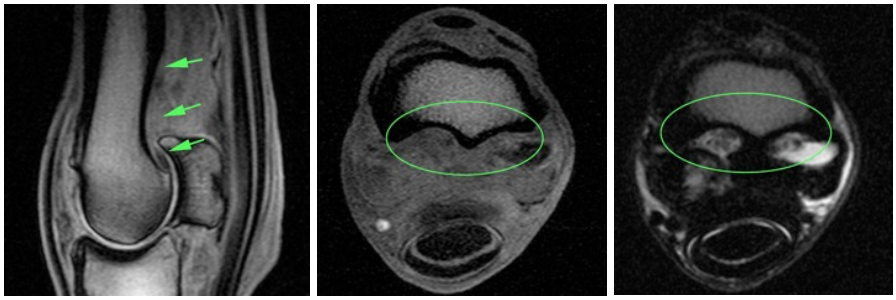
- Sagittal: T1W FFE3D, T2*W FFE3D and T2W IR-TSE.
- Transverse: T1W FFE3D, T2W TSE and T2W IR-TSE.
- Dorsal: T1W FFE3D, T2*W FFE3D and T2W IR-TSE.

Description:
There is marked remodelling and new bone formation at the periarticular margins of the metacarpophalangeal joint, involving the third metacarpal bone (including: dorsoproximal aspect of the distal epiphysis [medial>lateral], both epicondyles and abaxial margins of the distal aspect of both condyles), the proximal phalanx (both abaxial and dorsal margins of the proximal epiphysis), as well as the proximal and distal articular margins of both proximal sesamoid bones.



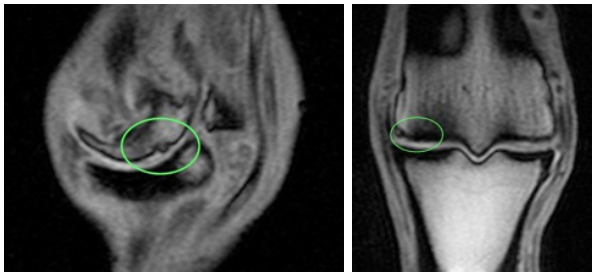
The metacarophalangeal joint is moderately distended, with proliferation of material of low signal intensity on T2W images and high signal on T1W images. This is more pronounced at the palmar

recess, where the palmar cortex of the third metacarpal bone, involving the palmaroproximal aspect of both condyles and the adjacent portion of the metaphysis and distal diaphysis, shows a smoothly outlined concavity biaxially. There is increase in size of the nutrient channels at the physeal region.

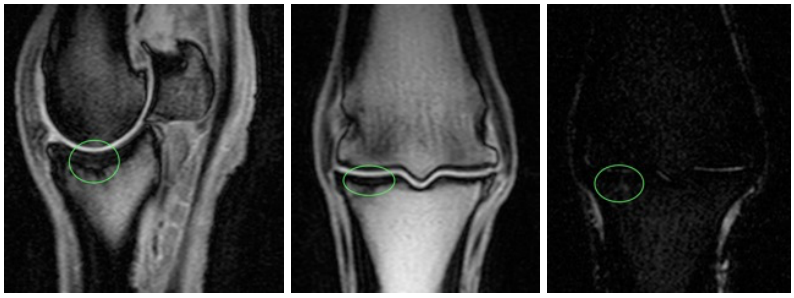


There is mild to moderate, ill-defined low signal intensity on both T1W and T2*W images at the trabecular bone adjacent to the dorsodistal portion of the medial condyle of the third metacarpal bone.

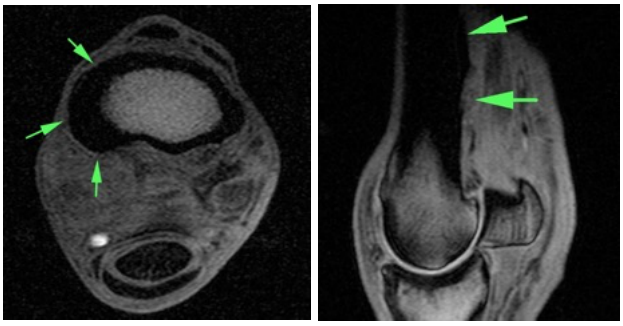
The subchondral bone of the palmarodistoabaxial portion of the medial condyle of the third metacarpal bone is moderately irregular and thickened. Similar changes, but less pronounced, are also noted at distoabaxial aspect of the lateral condyle.



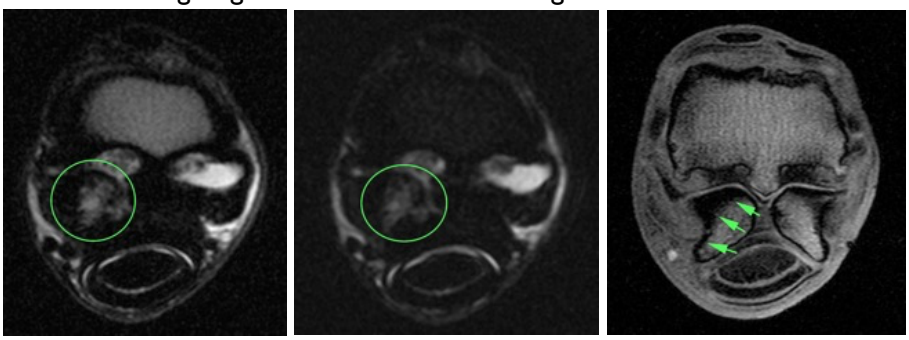
The medial half of the proximal subchondral bone of the proximal phalanx is moderately and unevenly thickened, with an irregular endosteal margination. Within the mid portion of this region, there is mild, ill-defined area of high signal on STIR images with peripheral fat-water cancellation artifact on T2*W images that shows low signal intensity on T1W images.



There is moderate to marked remodelling and thickening of the palmaromedial cortex of the distal diaphysis of the third metacarpal bone, which has a moderately irregular contour.



The branches of the suspensory ligament are asymmetric, with the medial one being markedly enlarged in cross section. From 3 cm proximal to the proximal sesamoid bone until its insertion, there is a poorly defined, irregularly marginated area of high signal intensity on all sequences. This area involves at least the 60% of the cross section of the ligament within the axial portion of the branch. The axial border of this branch is poorly demarcated, with irregular margins.
The compact bone of the dorsoabaxial portion of the ipsilateral proximal sesamoid bone is slightly thickened, with mild ill-defined low signal intensity on T1W and T2*W of the adjacent spongiosa. There is moderate thickening of the periligamentous and subcutaneous soft tissues that show mild diffuse high signal on T2W and STIR images.



The digital flexor tendon sheath is moderately distended with fluid.

Conclusions:

1. Acute, extensive, distal core lesion of the medial branch of the suspensory ligament with moderate insertional enthesopathy.
2. Marked osteoarthritis and synovitis of the metacarpophalangeal joint with secondary supracondylar lysis.
3. Subchondral bone irregularities at both condyles (medial > lateral), a cartilage erosion cannot be excluded.
4. Thickening of the medial subchondral bone of the proximal phalanx with a focal irregular area bone oedema like lesion (DDx: oedema, haemorrhage, necrosis, fibrosis). DDx: bone contusion, subchondral bone disease.
5. Remodelling and thickening of the palmaromedial cortex of the distal diaphysis of the third metacarpal bone. Most likely secondary to previous old II metacarpal bone fracture and surgical treatment.
6. Moderate digital flexor tendon sheath tenosynovitis.
7. Mild trabecular bone sclerosis at the medial condyle of the third metatarsal bone.

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