CRANIALAUDAL CRUCIATE LIGAMENT AVULSION DUE TO OSTEOCHONDROSIS DISSECANS OF THE STIFLE JOINT IN A GOLDEN RETRIEVER DOG.

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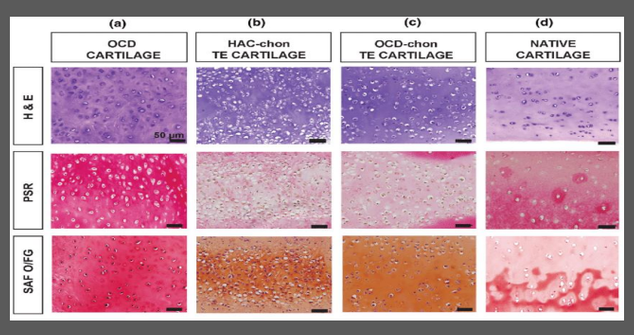
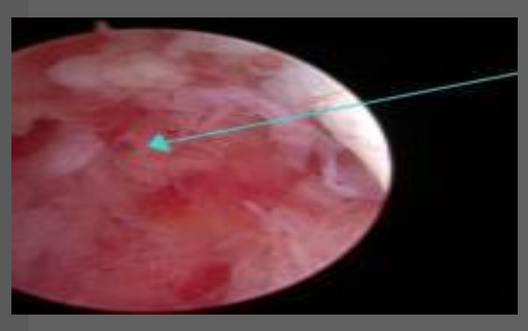
Introduction

This report describes clinical, computed tomography (CT), arthroscopy and histology findings of an unusual case of cranial cruciate ligament avulsion due to osteochondrosis dissecans causing acute, high-grade hind limb lameness in a dog.

Methods

An 8-month-old, entire male, thirty-two kg Golden retriever dog was presented with a grade 4/5 right hind limb lameness with no trauma history. Clinical symptoms appeared suddenly and spontaneously. Bilateral hind limb CT and right stifle arthroscopy were performed. Histopathology of removed fragments was performed.





Results

CT revealed moderate right stifle joint effusion, fat pad compression, sclerosis and a displaced subchondral bone fragment at the caudomedial aspect of the lateral femoral condyle, the area of origin of the cranial cruciate ligament. Arthroscopy confirmed the location of the fragment and attachment of the cranial cruciate ligament to it. The fragment and ligament were removed and the damaged cartilage burred. Histologic examination revealed cartilage and bone fragments consistent with osteochondrosis dissecans (OCD) and secondary degenerative changes.

Images reveal an avulsion of the insertion point of the cranial cruciate ligament due to OCD.

Figure 1 Dorsal view of the right stifle joint. There is a Subchondral deffect with a partial bone avulsion (arrows)

Figure 2 Sagittal view of the right stifle joint, highlighting the marked joint effusion (arrow)

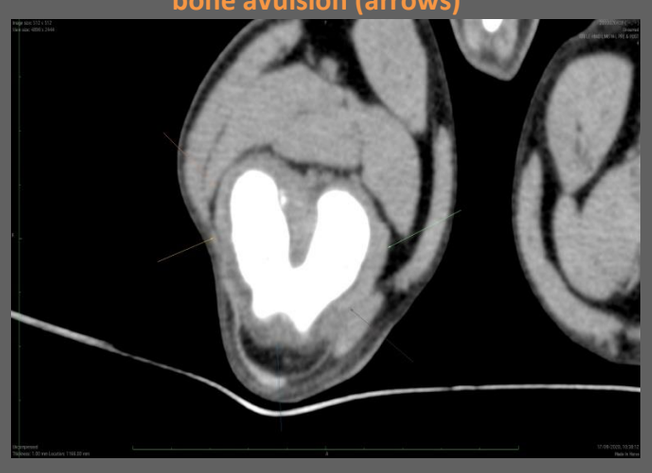


Figure 3 Transverse soft tissue filter image of the right stifle joint. Note the marked, diffuse soft tissue effusion of the joint (arrows)

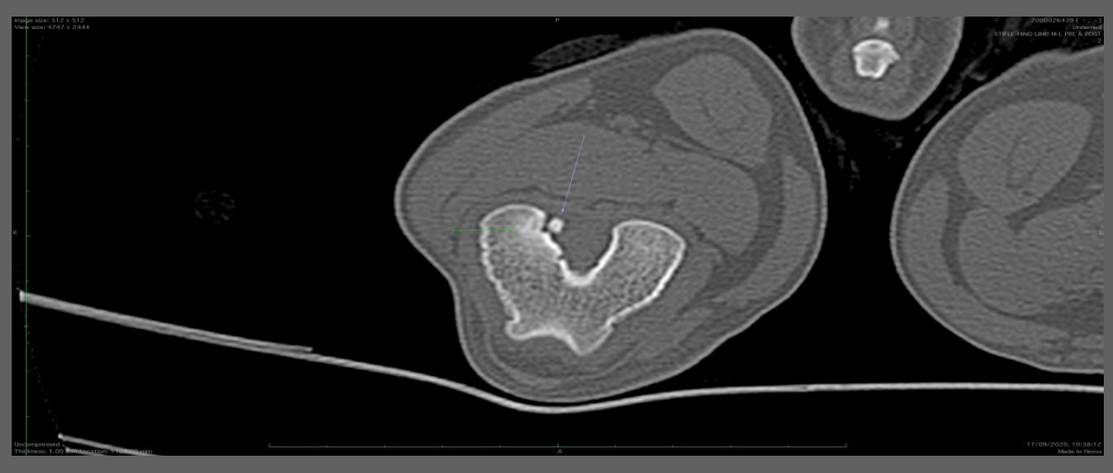


Figure 4 Transverse bone filter view of the right stifle joint. Note the subchndral sclerosis (green arrow) and the avulsed incertion point of the cranial cruciate ligament (purple arrow)

Discussion

Acute cranial cruciate ligament injury is a rare disease in dogs, and is most commonly seen in young dogs with a trauma history. Stifle OCD is a relatively rare form of OCD in dogs and typically manifests at the distal articular surface of the lateral femoral condyle. This case illustrates that stifle OCD can lead to an avulsion fracture of the cranial cruciate ligament.

References

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