



DIAGNOSIS AND MANAGEMENT OF TWO CASES OF TROCHLEAR RIDGE FRACTURES IN DOGS.

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Introduction

Isolated fractures of the talus are uncommon in the dog. Fractures of the talus neck are generally accompanied by complete luxation of the fracture fragment at the proximal intertarsal joint, whereas fractures of the body and head are often associated with mild subluxation of the talocalcaneal articulation. Trochlear ridge fractures are extremely rare diagnostic findings in small animals¹. In the literature to our knowledge only two cases have been described in dog. These two cases presented here are the 3rd and 4th case described in small animals.

Case selection

Two dogs, an adult male German Sheperd and an adult female Alentejo Mastiff were both presented for left hindlimb lameness with a two weeks duration due to probable distal extremity trauma. At the orthopaedic examination both dogs showed distal swelling, non-weight bearing lameness and pain on extension of the talocrural joint. The female dog presented a wound over the lateral aspect of the joint with marked lateral instability of the tibiotarsal joint suggesting lateral collateral ligament rupture or lateral malleolus fracture.

Dorsoplantar, and médio-lateral radiographs of the tarsus revealed significant soft tissue swelling over the lateral aspect of the tarsus and widening of the joint space over the lateral trochlear ridge of the talus. A fracture of the lateral ridge was appreciated upon evaluation of the flexed dorsoplantar view. In the case of the female dog a lateral malleolus transverse fracture associated with a complete rupture of the tibiotarsal collateral lateral ligament was also observed.

Surgical technique

In both cases, fractures were surgically repaired via a dorsolateral approach to the talus without fibular osteotomy. The fragment was manually reduced and secured with a 2 mm cortical screw placed in lag fashion. An antirotational kirchner wire of 1,2 mm was placed as an ancillary osteosynthesis method in both dogs.

Perioperative care

In both cases, a Robert-Jones bandage as applied for 72 hours and exercicy restriction was advised untill bone union was achieved. To protect the osteosynthesis a fiberglass cast was applied for 4 weeks after Robert-jones bandage was removed.

Analgesia as an outpatient was provided with meloxicam 0,1 mg/Kg PO SID and tramadol 3 mg/Kg PO BID for ten days

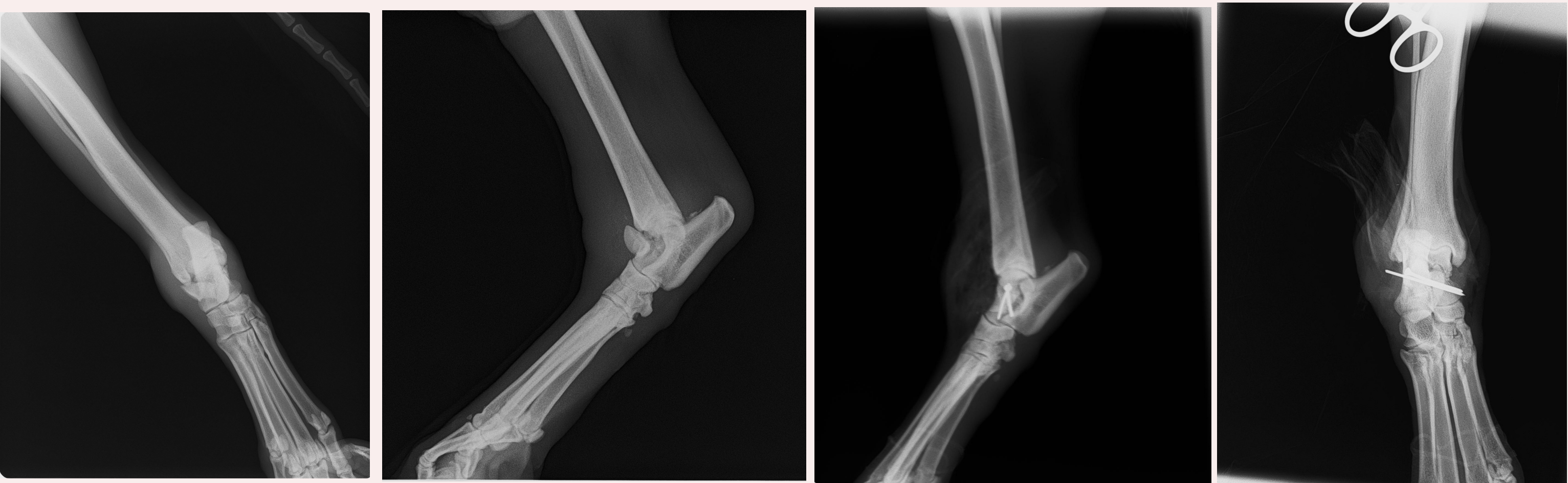
Bibliographic references

1-Maley JR, Dvorak LD, Bahr A. Diagnosis and management of a fracture of the lateral trochlear ridge of the talus in a dog. Veterinary Comparative Orthopaedics and Traumatology. 2010;23(4):284-8.

Case details.

Case number	species	Weight (Kg)	Age (years)	Breed	Cause of fracture	Trauma to surgery (days)
1	Dog	30 Kg	10	German Sheperd	Road traffic accident	14 days
2	Dog	38 Kg	2	Alentejo Mastiff	Road traffic accident	14 days

Figure 1— case number 1



Dorso-plantar and medio-lateral radiological projections of tarsus and distal tibia—pre and post-operative.

Figure 2 - case number 2



Dorso-plantar and medio-lateral radiological projections of tarsus and distal tibia—pre and post-operative.

Results

Case number	Surgical complications	osteosynthesis methods	Other lesions	Fracture healing (weeks)	Follow –up (months)
1	-	Lag screw + antirotational K wire		12	12
2	-	Lag screw + antirotational K wire	Tibio-tarsal joint lateral collateral ligament rupture or lateral malleolus fracture.	12	24