VETCT

Clinical support in your pocket

IT'S YOUR CASE

Species: Canine Breed: Shih Tzu Sex: Female Entire Age: 5 years

Clinical History:

Fell out of a second story window.

Details of study and technical comments: Orthogonal radiographs (3 films) of the left hindlimb are provided for interpretation.

Diagnostic interpretation:

LEFT HIND: There is a luxation of the tarsometatarsal joint. The metatarsus is luxated craniolaterally relative to the tarsus. The distal row of tarsal bones are mainly intact. Tarsal bone 4 appears predominantly intact proximally but the distal border is poorly seen, the distal margin of tarsal bones 1, 2, 3 are well demarcated. At the distal medial aspect of tarsal bone 3 there is a questionable osteochondral fragment. The metatarsal bones appear intact. At the base of the metatarsal 5 there is a tiny minimally displaced calcified body. The adjacent soft tissues are severely thick. There are no fractures of the tibia, fibula, phalanges, or femur. The patient presents chondrodystrophic limb conformation.

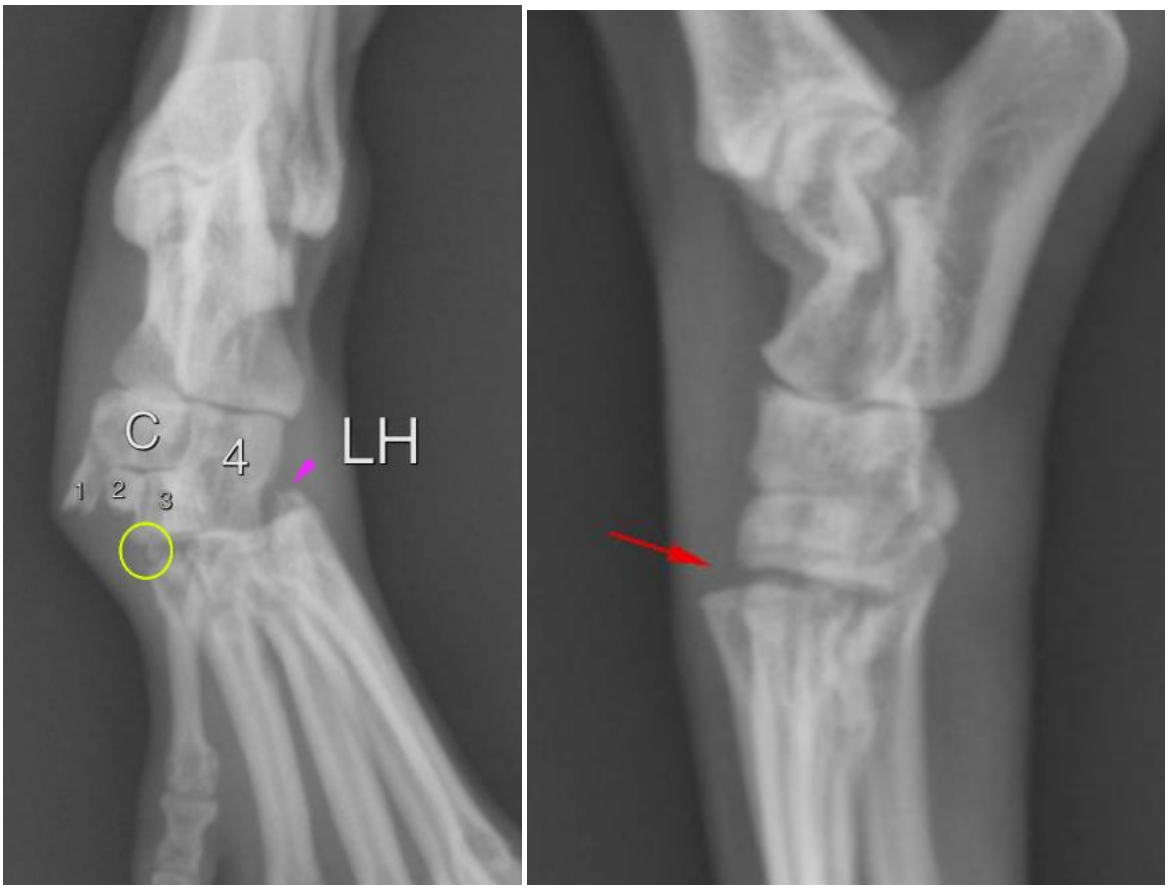

Figure 1. There is a luxation of the tarsometatarsal joint, on the lateral view the red arrow denotes widening of this joint with cranial displacement. A small osteochondral fragment is suspected at the distal aspect of the 3rd tarsal bone (circled). An additional small fragment is noted at the base of the 5th metatarsal bone (pink arrow head).

Conclusions:

1. Acute traumatic luxation of left tarsometatarsal joint
2. Suspect associated small osteochondral/corner fractures

Additional comments:

The injury to the left tarsometatarsal joint is consistent with hyperextension from falling from a height. Although the subluxation is the predominant radiographic feature, these injuries are frequently associated ligamentous damage from the hyperextension which may include injury to the plantar soft tissues – please correlate with palpation. The suspicion of a few small chip fractures associated with the subluxation is frequent with this type of injury, there is no clear evidence of a slab fracture of the cuboidal bones (slab fracture is a fracture extending from 1 articular surface to the other). If additional information is warranted for treatment planning, radiographs under general anaesthesia, which may include stress views to distract the fragments, could be contributory. A CT examination of the tarsus could also be considered. A recent study of artificially created tarsal fractures in cadaver limbs showed that CT is slightly more sensitive than plain radiographs, and that the most likely fragments to be missed or misinterpreted are the small corner fragments (Butler et al, VRUS 2018).