

Chronic iliopsoas muscle strain and avulsion in a 9-year-old female West Highland White terrier.

History: A female West Highland White terrier of 8.5 kg was admitted with complaints of varying lameness on the left hind leg. This was noticed by the owner about a month ago. The dog also did not want to do stairs anymore and the lameness worsened after exercise. There was no known history of trauma.

RX & CT findings: Figure 1: *Left*: VD radiography of the left hip; *on the right*: a transverse CT image in bone algorithm of the trochanter minor. The red arrows show the mineralization in the iliopsoas tendon attachment on the trochanter minor. The trochanter minor itself is irregularly delineated.

Figure 2: MIP CT image of the pelvis. The red arrow shows the avulsion fracture with the mineralizations within the attachment of the iliopsoas tendon to the trochanter minor.

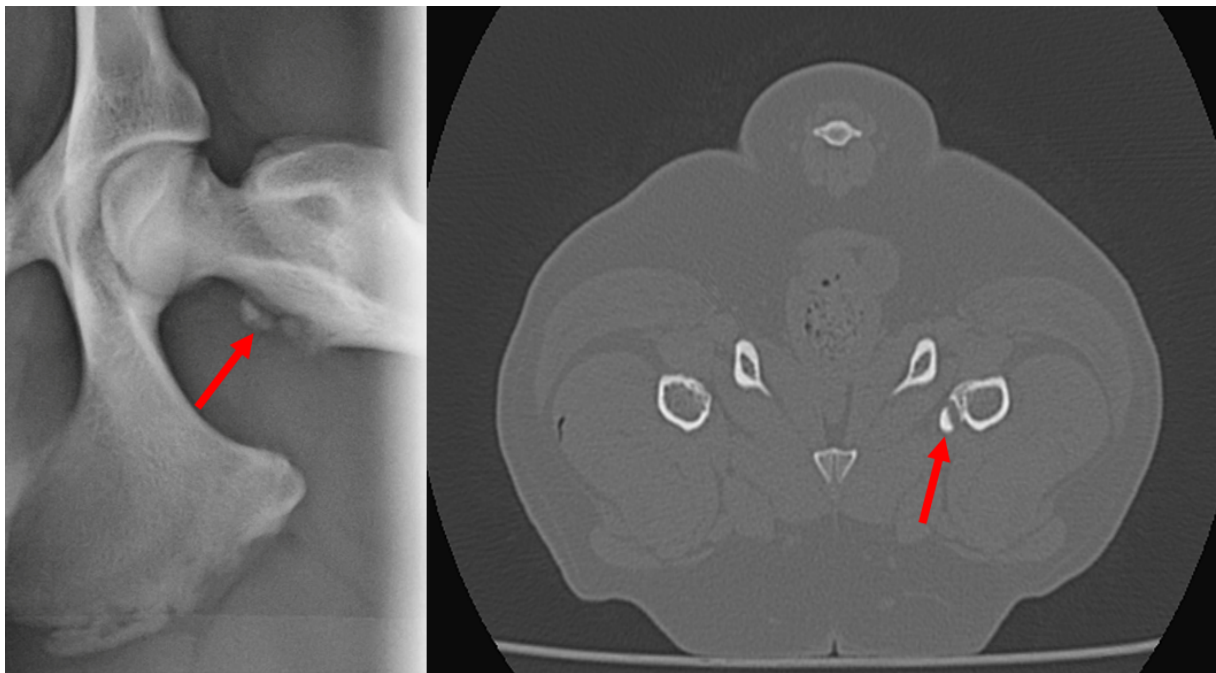


Figure 3: 3D CT image of the pelvis. Here, too, the avulsion fracture with mineralizations is clearly visible (red arrow).

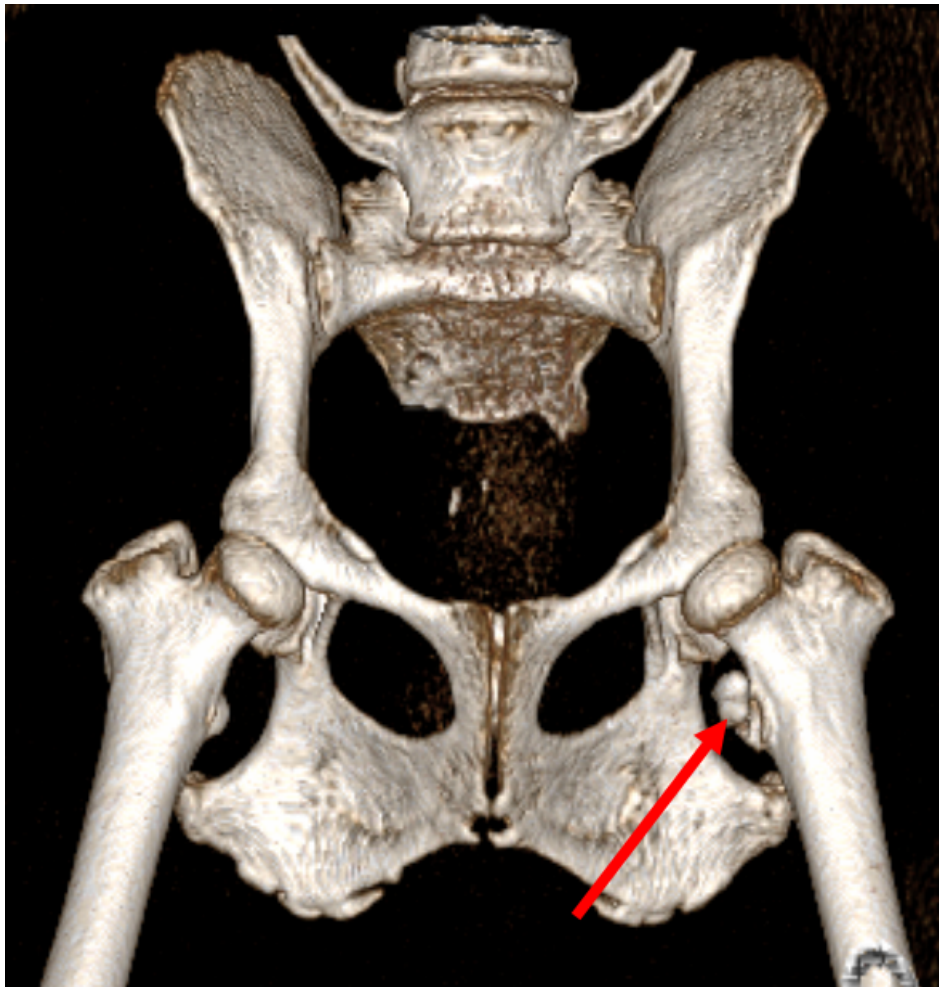
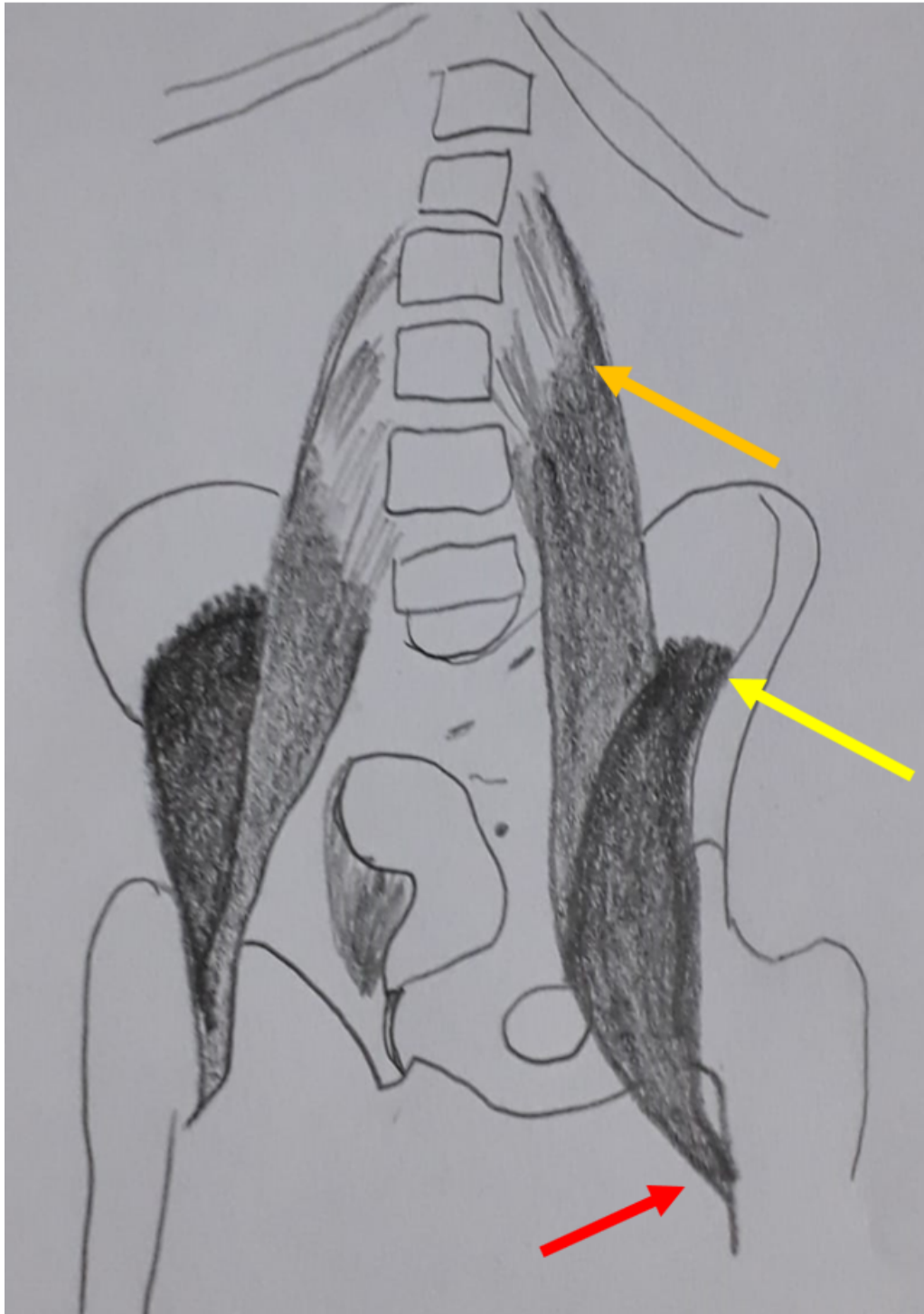


Figure 4: Drawing showing the origin of the iliacus muscle (yellow arrow) and the psoas major muscle (orange arrow); the attachment of the iliopsoas tendon to the trochanter minor (red arrow).



Diagnosis: Chronic iliopsoas muscle strain and avulsion.

Iliopsoas muscle tears are a relatively common yet infrequently diagnosed injury in dogs. Tearing of this muscle is very painful and causes pain and lameness. Iliopsoas strains or tears result from excessive stretching of this muscle during highly athletic activities such as agility training or fetching a tennis ball. Radiographs (X-rays) frequently do not show the muscle tear in the acute phase; however, in chronic cases the torn muscle may have mineralized densities. Ultrasound is a good tool to help diagnose this problem but sometimes the muscle may only have microscopic changes that may not be seen on ultrasound imaging. MRI and CT scan are other diagnostic tools that can help in the diagnosis of the problem. Commonly, the diagnosis is based on the clinical findings during the examination.

Reading:

Iliopsoas muscle injury in dogs. Quentin Cabon, Christian Bolliger. Compend Contin Educ Vet. 2013 May;35(5):E2.