

SUPERFICIAL DIGITAL FLEXOR TENDON DISPLACEMENT

An uncommon cause of rear limb lameness in dogs is a condition known as Superficial Digital Flexor Tendon (SDFT) Displacement. This condition has been reported in many breeds but is seen most commonly in Shetland Sheepdogs and Collies where a simple autosomal recessive inheritance has been suggested.

The SDFT forms the most superficial part of the calcaneal (Achilles) tendon and travels over the tuber calcanei as a flat tendon that splits into branches for each toe. The action of the SDFT muscle/tendon is flexion of the digits, extension and fixation of the tarsus and flexion of the stifle joint. It has a firm retinaculum on both the medial and lateral aspects of the calcaneus that maintains its position in the calcaneal groove.

SDFT displacement occurs when there is a rupture to the medial or lateral retinaculum. It is most commonly associated with vigorous activity and rotational force applied to the calcaneus. The medial retinaculum is less fibrous and therefore more prone to tear, although the injury can occur on either side.

Dogs will usually present with an acute onset of weight bearing lameness. There is swelling at the tarsus most commonly at the proximal aspect of the calcaneus. With the tarsus in extension, the SDFT can be luxated to the side opposite to the tear. Often there is a popping that can be palpated and/or heard when the tendon is luxated. It can feel similar to palpation of a luxating patella. Radiographic findings are soft tissue swelling at the point of the tuber calcanei.

Surgical repair of the retinaculum is advised. The skin incision is made on the side of the tear. The bursa is opened and the fibrous tissue is removed. The SDFT is reduced and stabilized by suturing the edge of the tendon to the adjoining retinacular tissue. If the injury is long standing or there is not enough tissue to imbricate, sutures can be placed through bone tunnels drilled in the calcaneus.

Conservative therapy with rest and/or external stabilization with splinting is rarely successful.

Following surgical repair the tarsus should be immobilized with a bandage/splint for 4-8 weeks. Strict rest is required while the patient is in the splint and for a few weeks following splint removal.

Traumatic SDFT displacement generally responds well to surgery and appropriate post-operative management. However dogs with some degree of malformation to the bones of the tarsus, especially the calcaneus, may be prone to recurrence.

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