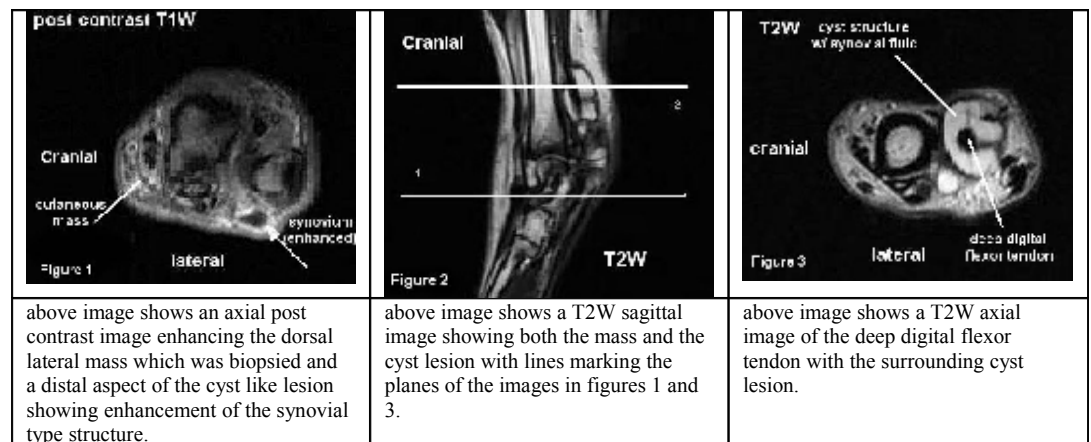


Use of MRI and RT in treatment of Mast Cell Tumor

Case Summary: A 6yr. old, spayed female English bulldog was presented for MRI imaging of a diffusely swollen right rear hock. Histopathology of the affected area revealed a mast cell tumor (grade II). Patient was being treated with analgesics (Tramadol) and antihistamines (diphenhydramine) at the time of the scan. The remainder of the history and physical exam was unremarkable.

MRI imaging allows superior soft tissue differentiation when diagnosing soft tissue disease.

Radiation Therapy may be used to spare a limb when surgery is not feasible without amputation.



Findings: A mass lesion was identified originating from the dorsal lateral aspect of the hock extending from the level of the tarsometatarsal joint through the tibiotarsal joint. The mass appeared extracapsular with the deep margins extended to the level of the joint capsule but with no apparent invasion into the capsule. Multiple cyst-like cavities filled with fluid that was isointense to synovial fluid were present at the plantar aspect of the tibiotarsal joint and within the adjacent sheath of the deep digital flexor tendon. Post-contrast images revealed mild thickening of the structures encapsulating this apparent synovial fluid. No destructive changes of bone were detected and the deep digital flexor tendon was uniform in signal and minimally thickened.

Imaging Diagnosis: Magnetic resonance images of the affected area (above) confirmed a dermal tumor of the dorsal lateral aspect of the right hock consistent with a cutaneous mast cell tumor. There was also visual evidence of concurrent chronic tenosynovitis involving the deep digital flexor tendon sheath as well as associated mild DJD and synovitis of the tibiotarsal joint.

Outcome: Radiation therapy of the affected area was performed in an attempt to spare the limb. A total dose of radiation (54 Gy) was given in 18 fractions or treatments. Treatment was completed with no acute reactions. There is a long term risk of distal limb edema (distal to treatment site) since the tumor and necessary margin needed for complete treatment left little room to spare a lymphatic strip

(area of untreated tissue to ensure lymphatic drainage of distal tissue). So far no complications have been reported since the last treatment five weeks ago.

*Please do not hesitate to contact our facility to discuss the value of a CT or MRI study for a particular patient prior to requesting an imaging study.
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