

MAST CELL TUMORS

Cutaneous mast cell tumors (MCT) are a common form of neoplasia(cancer) in the dog.

Mast cells are normal immune system cells. The intracellular cytoplasmic granules contain heparin, histamine, platelet-activating factor, and eosinophilic chemotactic factor. The visual appearance of cutaneous MCT is variable; they can look like almost any lesion.



MCT are generally easily diagnosed with fine needle aspiration cytology. In dogs, 50% of MCT are metastatic, especially those in the preputial, inguinal, and perineal areas. Appropriate tumor staging for metastasis may include CBC with buffy coat examination, thoracic radiographs, abdominal sonogram, bone marrow evaluation, and regional lymph node aspiration cytology.

Manipulation or aspiration may cause mast cell degranulation leading to erythema, wheal formation, systemic hypotension, and rarely cardiac arrest. Vomiting, diarrhea, and melena may occur secondary to gastroduodenal ulcers associated with MCTs.

Medical management may involve treatment with prednisone, diphenhydramine, histamine blockers, chemotherapeutic drugs, or radiation therapy. Surgical excision of MCT should include wide margins laterally, and at least one fascial plane deep to the primary mass whenever possible.