

Grading Mast Cell Tumors

Management of canine mast cell tumors (MCTs) can be challenging because of their varied clinical behavior. Histologic grading helps predict MCT behavior, with metastasis more likely in higher grades. Additional clinical staging (eg, lymph node [LN] assessment, abdominal ultrasound, thoracic radiography) may help determine extent and prognosis of MCTs. The authors of this retrospective study hypothesized that canine MCTs typically metastasize to local LNs prior to further spread and sought to evaluate the utility of full clinical staging in the absence of evidence of spread to the local draining LN.

Records were analyzed from 220 dogs with MCTs that were presented to an

oncology referral center. Staging for most dogs included lymph node palpation/cytology, thoracic radiography, and abdominal ultrasound. Sublumbar LNs were aspirated with ultrasound guidance when metastasis was suspected. LN aspirates were performed in 119/220 cases. Cytological evidence of local LN metastasis was seen in 30.9% of dogs at time of presentation. Distant metastasis was present in 6.8% of all dogs; each of these cases also had local LN metastasis. Combined with follow-up data, the sensitivity of correctly detecting or predicting distant metastasis via initial LN assessment was 82.4% with a negative predictive value of 89.5%. The authors suggest that the local LN is sentinel to evaluation of MCT metastasis and that further staging of MCTs when the local LN is clear is of limited prognostic value. Further studies into LN mapping and the best method of LN assessment are needed.

Commentary

Although many clinicians feel that the grade of an MCT should influence the staging diagnostics pursued, the grade is not known until after a biopsy has been obtained. This impacts the decision-making process, as a clinician will have to decide on the timing of staging. Aspiration of a presumed draining LN should be considered prior to resection of a mast cell tumor, as a metastatic lymph node should be removed when the primary tumor is removed; in some instances, the draining lymph node is not aspirated because of location. In cases such as these, the staging diagnostics would be determined after excision of the mass with a wide margin or after obtaining a biopsy to determine grade. —William T. N. Culp, VMD, DACVS, ACVS
Founding Fellow of Surgical Oncology

Source

Warland J, Amores-Fuster I, Newbury W, Brearley M, Dobson J. The utility of staging in canine mast cell tumors. *Vet Comp Oncol*. 2014;12(4):287-298.

Cats & Benzalkonium Chloride Exposure

Benzalkonium chloride (BAC), a quaternary ammonium compound used as a cationic detergent, is commonly found in household cleaners and disinfectants as well as industrial cleaning agents. This retrospective study analyzed cases of cats that had been exposed to BAC and had their cases recorded in the Veterinary Poisons Information Service database in an effort to determine the onset, effects, and duration of clinical signs associated with BAC exposure.

Of the 245 cases of exposure for which follow-up information was available,

12 (4.9%) did not show clinical signs. The most common clinical signs (eg, hypersalivation, tongue and oral ulceration, hyperthermia, inappetence, lethargy, vomiting) were attributed to GI irritation. Some cats (22.1%) experienced respiratory signs (eg, respiratory distress, tachypnea, dyspnea, wheezing), and others (2.9%) had dermal irritation. The mean time for onset of clinical signs to appear was 6.4 hours, with a range of 5 minutes to 48 hours. Treatments were supportive in nature and included antibiotic therapy, fluids, analgesia, gastroprotectants, dermal decontamination, steroids, and atropine (for hypersalivation).

Three cats, all with respiratory signs, died following BAC exposure; it is unclear whether the respiratory distress was a clinically significant contributor. Most cats exposed to BAC developed clinical symptoms, with most achieving complete recovery following supportive care, although recovery was sometimes prolonged and damage significant.

Commentary

Cats clearly demonstrate increased sensitivity to benzalkonium chloride, which is present in many everyday household products. The delay in onset of clinical signs can postpone intervention and treatment, potentially worsening tissue damage. If caught early, rinsing the oral cavity may help dilute the exposure and decrease the risk for worsening clinical effects. For clients calling with a potential benzalkonium chloride exposure, this highlights the importance of taking a complete toxicology history. Determining the type of exposure, active ingredients (and in what concentrations), and time since exposure can help to ensure immediate intervention, if warranted. —Sarah Gray, DVM, DACVECC

Source

Bates N, Edwards N. Benzalkonium chloride exposure in cats: A retrospective analysis of 245 cases reported to the Veterinary Poisons Information Service (VPIS). *Vet Rec*. 2015;176(9):229.