



# NEWS FROM THE WORLD OF ONCOLOGY

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## **Mast Cell Tumours – Frequently Asked Questions**

Mast cell tumours (MCT) often present a diagnostic and therapeutic dilemma for all of us. Below I have tried to answer some of the most common questions associated with MCT disease in dogs.

**What is grade?** Grade is determined by histological criteria that evaluate the tumour. Grade assesses tumour cell differentiation, mitosis, mitotic index and necrosis. Grade has been associated with prognosis and is likely the most prognostic indicator we have available to us. There are three grades, Grade I, II and III. Grade I has the best prognosis and Grade III has the worse prognosis.

**How are MCT treated?** Local control is the hallmark of therapy. This involves surgery, radiation therapy or a combination of both. Essentially the surgical option is preferred when possible. Due to the aggressive nature of the tumour wide margins are necessary to have the best chance to obtain complete control. Margins of 3cm are considered necessary. There is a study that suggests for Grade I and Grade II tumours, 2cm margins will completely remove the tumour about 90% of the time. Aggressive surgery is always best as “the first surgery is the best chance for cure.”

**What can be done if the surgical margins aren't complete?** This is the toughest question to know how to answer. Additional local control is generally recommended, absolutely for Grade I and II tumours, and may involve more surgery or radiation therapy. Recurrence rates may be as low at 23% for incompletely resected Grade II MCT, but 71% will recur within 1 year. I recommend additional local control.

**Does chemotherapy play a role in MCT therapy?** Chemotherapy's role is adjunctive (given after local control) and is meant to address or prevent the metastatic aspect of MCT. Grade I tumours generally don't require chemotherapy while Grade III tumours always do. The question is what about Grade II MCT? A recent study demonstrated that certain proliferation markers (AgNOR, Ki67) are related to Grade. I recommend all Grade II MCT have a proliferation panel completed and those that have high markers be treated with chemotherapy.

**What is the prognosis?** The outcome is very Grade dependant. With appropriate local control 93% of dogs will be alive at 3 years. The largest study looked a survival rates at 1500 days with surgical treatment only. Eighty-three per cent of Grade I dogs were alive at 1500 days, 44% of Grade II and 6% of Grade III. The role of chemotherapy to improve outcome was not investigated in that study, but response rates as high as 78% are reported.

*DR. KEVIN FINORA IS A BOARD CERTIFIED ONCOLOGIST AND SMALL ANIMAL INTERNIST. HE SEES PATIENTS WEDNESDAY (INCLUDING EVENINGS) TO SATURDAY AT VEC/RC SOUTH. PLEASE DO NOT HESITATE TO CONTACT DR. FINORA IF YOU HAVE ANY CANCER RELATED QUESTIONS.*



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