

# NEWS FROM THE WORLD OF ONCOLOGY

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## LATEST DEVELOPMENTS IN VETERINARY ONCOLOGY: UPDATE

Three weeks ago the American College of Veterinary Internal Medicine held its annual conference in Montreal. The Forum is an opportunity for attendees to get leading information regarding the newest advances and forms of therapy. Two interesting developments were discussed at Forum that have the potential to change the field of Veterinary Oncology.

First, data was discussed relating to an exciting project in North Carolina. This group has started to use autologous peripheral blood stem cell transplantation for the treatment of canine lymphoma. This is the same procedure that has helped to make lymphoma an essentially curable disease for most human patients. The group has started this project and, though the numbers of recipients is low at the present moment, 7/8 dogs currently appear to have been cured of their lymphoma.



This treatment is aggressive. Careful and proper patient selection is essential. In people this procedure will not usually be given to individuals over 65 years of age. For dogs this treatment is likely best suited for young patients. The dogs must be in clinical remission prior to entry into the programme. This is achieved using the standard multi-agent protocols in use today. The dogs are then given a very high dose of chemotherapy meant to wipe out all but the stem cells. This is immediately followed with granulocyte colony stimulating factor. When the stem count rises to >30,000 the patient's stem cells are collected with a bloodphoresis unit. The patient is then given a lethal dose of full body radiation. Immediately upon completion of radiation therapy the stem cells are transplanted back into the patient, thus preventing death. There is high morbidity associated with the post transplant period relating to leukopenia and thrombocytopenia. All patients are hospitalized one week prior to transplant and for 2 to 3 weeks in ICU or reverse isolation following transplant. Current data show prolonged survival times, though a mortality rate of 14% is currently reported. If you have a patient you think may be suitable for this therapy do not hesitate to contact me.

The second new development has been the approval of a new drug Palladia® (toceranib phosphate). This drug is a multi-kinase inhibitor targeting several receptor tyrosine kinases. This medication has been demonstrated to inhibit the vascular endothelial growth factor receptor 2 (VEGFR2) and stem cell factor receptor (cKIT). Both of these molecules have been implicated in promoting the growth of canine mast cell tumours (MCT). In a randomized study Palladia® was used in dogs with recurrent Grade II or III cutaneous MCT with no metastasis, who had failed an initial radiation or chemotherapy protocol. In a phase I trial this drug was demonstrated to be safe for use in dogs but with a narrow range of safety. The most common side effects are GI in nature. In a double blinded placebo controlled trial this medication was noted to cause a partial or complete response in 37.2% of cases, far better than the placebo group (7.9%) and better than any rescue protocols currently available. This medication had been approved in the United States and it is anticipated that it will become available for use to Board Certified Veterinary Oncologists in Canada within a month, pending regulatory approval. Palladia® offers the first significant advance in the treatment of recurrent MCT in dogs in many years and will soon be added into my standard therapy options for the treatment of recurrent canine MCT. Please contact me if you have any questions about this new exciting therapy.

*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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