



Funded Study: Chemotherapy and NSAIDs in the Treatment of Canine Osteosarcoma
University of Illinois Cancer Care Clinic and
Comparative Oncology Research Laboratory

Study Title: Clinical trial evaluating piroxicam in the treatment of naturally occurring osteosarcoma

Purpose of the Study: Osteosarcoma is the most common bone tumor affecting the dog, with approximately 8,000 new cases diagnosed annually. Conventional therapies for managing osteosarcoma include amputation of the affected limb with concurrent administration of chemotherapy. Despite these treatment interventions, the majority of dogs will develop fatal distant metastatic disease within 2 years of diagnosis and treatment. Based upon the limited effectiveness of traditional treatment options, agents which may slow or delay the onset of metastatic disease would provide the opportunity to extend survival times in affected dogs. The intent of this study is to investigate the addition of piroxicam, a non-steroidal anti-inflammatory, in the chemotherapy protocol for dogs with osteosarcoma. Piroxicam, a nonselective cyclooxygenase inhibitor, inhibits PGE₂ synthesis and through this action possibly has immunomodulatory and antiangiogenic properties. Additionally piroxicam may induce apoptosis and thus contribute to tumor cell death. The objective of this project is to compare disease free and overall survival times in dogs treated with standard of care (amputation followed by doxorubicin) plus placebo or standard of care plus piroxicam for the treatment of appendicular osteosarcoma.

Inclusion Criteria

- Dogs with appendicular osteosarcoma; amputation within 2 weeks prior to entering the study.
- NO evidence of metastatic disease.
- NO concurrent systemic illness that requires medication.
- Signed informed client consent.

Diagnostics

- Diagnostics will include: 1) screening blood work and urinalysis 2) 3 view thoracic radiographs and 3) abdominal ultrasound.

Treatment

- Amputation of the affected limb is the treatment for the primary tumor (may be done with RDVM). Subsequently, all dogs will be treated with doxorubicin given every 3 weeks for a total of 5 treatments. Dogs will be randomized to either receive piroxicam or placebo orally daily until progressive disease is noted.

Compensation

- The study will pay for the chemotherapy treatments, including the CBC, doxorubicin, drug administration fees, and placebo or piroxicam.

Contact Information: Please feel free to contact Nancy George of the Oncology Service at (217)-244-7789 to refer a patient to the University of Illinois Cancer Care Clinic or for any additional information. Referring veterinarian and/or client calls are welcome.