

Dr. Lisa Parshley & Dr Scott Gustafson's
Case of the Month
Limb Sparing Treatment of Osteosarcoma of the Distal Ulna
by Ulnar Osteotomy.

Luke is a 10 year old, 34 kg, yellow Labrador retriever that presented one year ago for further evaluation and consultation for his diagnosed osteosarcoma. Diagnosis of osteosarcoma of the distal ulna was made by the referring veterinarian via bone biopsy using a Jamshidi device. The bone lesion involved the left distal ulna (**figure #1**). The referring veterinarian called Dr. Gustafson and asked about options for saving the leg because the clients were apposed to amputation. We suggested that Luke may be a candidate for **limb sparing surgery**. The client's primary therapeutic goal was to provide definitive therapy that would also alleviate the pain associated with his tumor and allow him to keep his leg. On physical examination he was obviously lame, had a soft tissue swelling proximal to the left carpus, which was painful on palpation. Chest radiographs were clear of obvious nodules or masses, and no other significant findings were noted on physical exam.

After discussing the various the therapeutic options available, we (the doctor & client team) selected surgical resection of the affected ulna, followed adjunctive medical therapy. **Surgical therapy** entailed en bloc resection of the ulna taking care not to invade the tumor capsule. The ulnar styloid was secured to the distal radius with a 2.7mm cortical screw to provide support for the lateral collateral ligament. Luke was weight bearing the day after surgery and was fully weight bearing and non-painful after the first week. **Medical adjunctive therapy** was designed to help improve healing of the surgical site (bisphosphonate) and to provide systemic therapy (chemotherapy) address the metastatic potential of Luke's cancer. To aid in administration of injectable therapies Luke had a venous access port placed during surgery. His first dose of carboplatin and pamidronate (bisphosphonate) were administered within 24 hours of his surgery. The timing of these first therapies was based on a study that demonstrates significant longer survival if the first dose of chemotherapy is administered within 14 days of the primary osteosarcoma tumor resection (ref). The total medical adjunctive therapy protocol included two doses of pamidronate (3 weeks apart) and three doses of carboplatin and adriamycin. His carboplatin and adriamycin were administered in an alternating manner once every three weeks

At his one-year follow up, Luke was acting completely normal (VERY rambunctious) at home with no obvious lameness or concerns. His chest and left limb radiographs were clear of obvious metastasis or concerning lytic lesions. Luke is one happy and fortunate pet to have great owners so dedicated to his quality of life!

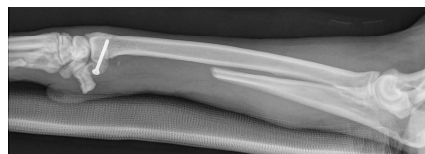


Figure 1 a – taken 3/08

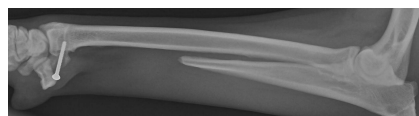


Figure #1 b - taken 3/09



Figure #2 a - taken 3/08



Figure #2 b - taken 3/08