Clinical Trials Office Update by Melissa Weber

The Clinical Trials Office (CTO) in the College of Veterinary Medicine assists clinicians in the design, execution and evaluation of veterinary clinical studies using client-owned animals with full disclosure and approval by the owners. Many of the studies being conducted in the college examine the use of new diagnostic tests and the efficacy of emerging treatments for a variety of cancers. Benefits of participation include access to leading-edge therapies to improve the diagnosis, treatment, quality of life, and outcome. Two current trials being conducted are evaluating different aspects of canine osteosarcoma, the most common form of bone cancer in dogs.

Dr. Val Samii, associate professor of radiology and diagnostic imaging in the Department of Veterinary Clinical Sciences, is working with Master of Science candidate and radiology resident Dr. Katarzyna Kazar on “Accuracy of CT in Determining Lesion Size in Canine Osteosarcoma of the Appendicular Skeleton.” The goal is to document a better way to estimate the size of a lesion in an affected bone.

“Typically, we overestimate the size of a lesion,” Dr. Samii explained. The protocol of the study includes making a CT scan through affected bone pre- and post-intravenous contrast administration. Once the limb has been amputated, the exact length of the lesion can be measured. The protocol of the study includes making a CT scan through affected bone pre- and post-intravenous contrast administration. Once the limb has been amputated, the exact length of the lesion can be measured.

Dr. Valerie London, associate professor of oncology and director of the CTO, to study the “Clinical Evaluation of Combined Carboplatin/ Gemcitabine in the Treatment of Canine Osteosarcoma.” The standard of care with a diagnosis of osteosarcoma continues to be a combination of amputation and chemotherapy. Despite amputation of the affected limb and the administration of chemotherapy (carboplatin, cetuximab, and/or doxorubicin), most dogs will die of tumor spread to the lungs or other organs within two years following diagnosis.

There are many other ongoing and future clinical trials at the Veterinary Hospital. Please visit the website regularly to become familiar with and remain aware of the many clinical trials that may be of benefit to your veterinary patients.

Bosha Beats the Odds

Nine-year-old Bosha is a retired racing Greyhound from Lebanon, PA, near Hershey. Bosha was referred to the Veterinary Hospital about four years ago after he was diagnosed with osteosarcoma. Our clinic is known for our Greyhound Health and Wellness program, which provides care for the special health needs of Greyhounds. After Bosha had his leg amputated, he was enrolled in the Survant and Adriamycin clinical trial. Bosha traveled with his “mom” Barbara Heizer, to Columbus every other weekend for a total of five chemotherapeutic treatments and now returns every three months for check-ups. His mom Barbara is thrilled to report that he recently celebrated his four year anniversary as a cancer survivor and continues to live a life that is better than before.

The orthopedics and soft tissue surgery team, as well as the oncology and radiation therapy team, play a vital role in the care of a cancer patient, from performing biopsies to excising tumors. The hospital’s 24/7 Emergency and Critical Care service allows for emergency admissions and around-the-clock monitoring of cancer patients. The Veterinary Hospital’s extensive approach to treating cancer and hematologic disease in animals includes the Comparative Oncology Signature program, which connects faculty, staff, and students from all departments in the College, across the University (James Comprehensive Cancer Center and Solove Research Institute) and within the Columbus community (Nationwide Children’s Hospital) who have an interest in advancing cancer diagnostics and therapeutics in animals and people, with the goal of improving patient outcomes.

We also make extensive use of The Ohio State University Wright Center of Innovation in Biomedical Imaging, which houses both a 7- and 3-Tesla MRI magnet, which is used extensively for clinical animal patients for diagnostic purposes, and it is also used for research. These partnerships further the advancements in both human medicine and veterinary medicine.

Our veterinarians understand the stress and emotion that a client faces when their pet is diagnosed with cancer. After a thorough explanation of treatment options, we will develop a plan that fits the needs and comfort level of the patient and the owner. Our Honoring the Bond program, led by an experienced and highly skilled licensed social worker, offers the additional resources and support that our clients may need when they face difficult end-of-life decisions for their beloved family pet.

Ohio State Veterinary Hospital is the only facility in Central Ohio that offers such a breadth and depth of services, years of experience, quality of care, and leading-edge medical science to treat cancer in companion, exotic, and farm animals. This team approach, combined with the breadth and wealth of resources may extend an animal’s survival and quality of life to several more years or even several more years.

To make an appointment or learn more about our comprehensive services for animals with cancer, please call 614-292-3551. More information can be found regarding our Oncology & Hematology service, Equine Radiation Oncology, and Diagnostic Imaging Services at the Veterinary Hospital’s homepage, as well as information on other aspects of our comprehensive services related to the care of cancer patients (vet.osu.edu/hospital.htm).

Comprehensive, Cutting-Edge Cancer Care with Comfort and Compassion

by Kristen McComis

When an animal with cancer comes through the doors of the Ohio State Veterinary Hospital, a multidisciplinary team of clinicians and support staff are ready to offer the best prospective treatment available in veterinary medicine. We work collaboratively with owners and caretakers along with referring veterinarians who play an integral role in diagnosis, therapy and recovery of their patients. The Veterinary Hospital’s large network of board-certified faculty specialists provides expertise in medical, radiation, and surgical oncology with the support of numerous other clinical specialists including diagnostic imaging, anesthesiology and pain management, cytology, hematology, histopathology, internal medicine, and critical care.

Our facility houses a linear accelerator for delivery of radiation therapy that accommodates both large animal patients (farm animals and horses) as well as companion animal patients such as dogs and cats. Ohio State is unique in its ability to conduct clinical and translational medicine investigations ("research bench to patient"), which provides us with the latest knowledge and leading-edge therapies in cancer treatment. Clients have the option to enroll their pets in clinical trials, which gives them the opportunity to undergo exciting new therapies which will help future oncology patients live longer, fuller lives. (See the clinical trials update in this newsletter) As part of the College of Veterinary Medicine’s ongoing research into developing new prevention and treatment strategies, the Tissue Bank (Bioprecipitation Repository) collects samples of tumors and normal tissue from dogs and cats, and stores these tissues under controlled conditions for future use by multiple investigators.

Imaging services include digital radiology, ultrasonography, nuclear scintigraphy and a new eight-slice computed tomography (CT and MRI). The Veterinary Hospital houses its own clinical pathology laboratories, which include chemical pathology, cytology, and hematology. Board-certified veterinary pathologists and technicians analyze samples from multiple species daily using state-of-the-art automated equipment to provide timely and accurate diagnoses.

Some of the members of the multi-disciplinary oncology team.

In short, at Ohio State Veterinary Hospital we are working hard to provide the best progressive treatment available in veterinary medicine. The goal of our 52-dog study is to determine the improved survival rate of 60 percent. To enroll in the study is predicted to create a new era of hope for cancer patients.

The Ohio State University Veterinary Hospital

601 Vernon L. Tharp Street
Columbus, OH 43210

614-292-3551

Veterinary Hospital

Drs. Bone, Barbara Heizer and Dr. Guillermo Couto

veter.osu.edu/ClinicalTrials.htm

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The orthopedics and soft tissue surgery team, as well as radiation oncology service, exemplifies these principles. These services play a vital role in the care of a cancer patient, from performing biopsies to excising tumors. The hospital’s 24/7 Emergency and Critical Care service allows for emergency admissions and around-the-clock monitoring of cancer patients. The Veterinary Hospital’s extensive approach to treating cancer and hematologic disease in animals includes the Comparative Oncology Signature program, which connects faculty, staff, and students from all departments in the College, across the University (James Comprehensive Cancer Center and Solove Research Institute) and within the Columbus community (Wright State University) who have an interest in advancing cancer diagnostics and therapeutics in animals and people, with the goal of improving patient outcomes.

We also make extensive use of The Ohio State University’s world-class facilities in Biomedical Imaging, which houses both a 7- and 3-Tesla MRI magnet, which is used extensively for study companion animal patients for diagnostic purposes, and it is also used for research. These partnerships further the advancements in both human medicine and veterinary medicine. Our veterinarians understand the stress and emotion that a client faces when their pet is diagnosed with cancer. After a thorough explanation of treatment options, we will develop a plan that fits the needs and comfort level of the patient and the owner. Our Honoring the Bond program, led by an experienced and highly skilled licensed social worker, offers the additional resources and support that our clients may need when they face difficult end-of-life decisions for their beloved family pet.

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Successful Tumor Resection in a Llama  by Kristine McComis

Hope for Horses with Cancer  by Kristine McComis

Lorelei Returns to Agility Shows After Radiation Treatment for Brain Tumor  by Kristine McComis

Barnaby Successfully Battles Lymphoma  by Kristine McComis

The Ohio State University Veterinary Hospital
Successful Tumor Resection in a Llama  

by Kristine McComis

“Coozie,” a 13-year-old female llama, was presented to the Ohio State Food and Fiber Animal Service on November 30, 2007, for anorexia and lethargy. She had been rescued by owners Lyle and Helen Carpenter in July from a neglectful situation, and after initially gaining some weight, months later it was apparent something was wrong. She was passing only a scant amount of feces and to complicate matters, she was pregnant. Blood work from the referring veterinarian showed leukopenia and mildly increased liver enzymes.

Though Coozie was alert and responsive, she had a very low body condition score of 2/9. Ultrasound revealed she was in the fetus danger stage and in good condition. Abdominal radiographs showed that the colon and intestines were distended with feces. The cause of Coozie’s abdominal distress was a jejunal fibrous stricture caused by a malignant adenocarcinoma. A complete resection and side-to-side intestinal anastomosis was performed on December 5th, and there was no gross evidence that the cancer had spread. The surgery was a success. Coozie was monitored closely in the hospital and released December 11th.

Dr. Susie Vogel, the intern on the case, commented in the discharge summary that, “Coozie was a wonderful patient to have in the hospital. We truly enjoyed caring for her and receiving her nosy hugs.”

Pleased with their service at Ohio State, the Carpenters asked our staff to name the baby cria, planning for the birth in February. As a group name, they chose “Juna Rheese” (short for “juna” for jejunal resection.). However, as was feared, Coozie lost the cria later that month, the surgery had just been a bit too much stress for her. Her quality of life after surgery was very good, and Coozie enjoyed the following summer in a friend’s pasture. Coozie’s owners described her as a “special girl with a mind of her own.” She had a quirk about wearing red halters - any other halter would do, but as soon as they tried to put a red halter on her, she balked. “She was a character!” Mrs. Carpenter said.

Coozie lived about another year and then developed a persistent nasal discharge. A computed tomography (CT) scan revealed a mass that occupied the horse’s entire right nasal passage. The large mass was pushing into the left nasal passage as well, impeding the air flow.

“Surgery was performed using an innovative approach to remove the mass entirely through the nose,” said Dr. Yvonne Elko, who performed the delicate procedure. “Blood loss during the procedure required a transfusion. However, he recovered well from surgery and was discharged just four days afterwards, and sent home for pasture rest.”

Bustout returned for a re-check two months later. He exhibited a great attitude and some weight gain. Unfortunately, a recheck revealed some re-growth of cancerous cells, and the decision was made to begin radiation treatment. There are fewer than six linear accelerator facilities in the United States capable of providing external beam radiation treatment for a large animal, and the Veterinary Hospital has all of them. Bustout stayed in the hospital for several weeks receiving radiation of his right nasal passage three times a week. During his stay, he was walked every day. He exhibited a great attitude and enjoyed a good quality of life. He was a star patient, according to Dr. Elko. “He did not need any pain medication and continued to be bright and a favorite among all the hospital staff,” she said.

Bustout went home after radiation therapy and returned frequently for check-ups. After two months, the biopsy was negative - no signs of reoccurrence. Bustout was breathing easily, gaining weight, and back to his feisty attitude. Now more than a year since his radiation, he has returned to light riding and continues to enjoy life.

Even though the cancer may eventually return, this case demonstrates that tumors can be treated successfully, while maintaining a good quality of life in older horses.

Hope for Horses with Cancer

by Kristine McComis

The Ohio State University Veterinary Hospital’s equine service has started to successfully treat cancerous tumors in horses with a combination of surgery and radiation therapy. In the past, little was done to treat cancer in horses beyond surgical removal of the tumor, because diagnostic and radiation treatment facilities did not exist to accommodate the large-sized patients, and chemotherapy was often cost prohibitive. Now at Ohio State’s Galbreath Equine Center, there is a new focus on equine oncology thanks to collaboration between the equine surgeons, radiation oncologists, and the cutting-edge technology available for diagnosis and treatment.

Tracie Springer’s gilding “Bustout” - named because the mischievous thoroughbred like to break out of his stall - had a three-year history of increased difficulty in breathing, accompanied by weight loss. He had the latest in diagnostic imaging, an eight-slice multidetector helical CT scanner, clinicians discovered a mass that occupied the horse’s entire right nasal passage. The large mass was pushing into the left nasal passage as well, impeding the air flow.

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Lorelei Returns to Agility Shows After Radiation Treatment for Brain Tumor

by Kristine McComis

Debbie Klein’s seven-and-a-half-year-old Shetland, Lorelei, an agility show dog, suddenly began having seizures in the fall of 2004. Lorelei had been to the Ohio State Veterinary Hospital for a dental procedure at age four, so Ms. Klein called to make an appointment with our neurology service to pursue testing. A week after the episode, MRI revealed a mass in Lorelei’s olfactory lobe. The imaging confirmed features consistent with a meningocele, the most common brain tumor in the Shetland sheepdog. In Lorelei’s case, it was located deep to the frontal sinus and was surgically accessible. Surgery is an option for these types of tumors when the lesions remain confined to the nasal cavity or mucosa and microscopically invade adjacent brain tissue, so there is a risk of leaving residual tumor. Chemotherapy is an option, but is usually not as effective as other treatments. Radiation therapy alone or combined with surgery is usually the best treatment option. The doctors discussed all of the possible options with Ms. Klein. Klein said: “I had five dogs at the time, and given the nature of the home environment and other risk factors, we decided that the best course of treatment for Lorelei was radiation therapy with no surgery.”

Lorelei was started on Phenoobarbital which successfully controlled her seizures, and then after a three-months’ protocol they chose “Juna Rheese” (short for jejunal resection.). After her four-week course of radiation, Lorelei went home without any radiation side effects. She returned three months later for a re-evaluation by our neurology service and was still seizure free. She then came back for a repeat MRI in August (nine months post-radiation). The tumor had shrunk dramatically and she had not experienced any more seizures since her initial presentation to our clinic. She was last seen by our clinic in March of 2006 and was doing very well. We reduced the dosage of her anti-seizure medication and she began performing in agility demonstrations again.

“The usual expectation after treating a meningocele is control of clinical signs and shrinkage of mass for at least one year,” Dr. Green said. “Tumors over the cerebrum can do very well with radiation treatment.” However, Lorelei is thriving nearly four and half years after her radiation treatment, an amazing story in itself. “Dr. Green simply remarked, “It works!” The brain radiation protocol is usually well tolerated with few radiation side effects. As a long as a patient can continue to do very well with radiation treatment. Lorelei is doing. Now age 11 and 1/2 years old. “Her quality of life did not go downhill, and she still plays with the other dogs and follows me around as 'Sheiloo' does,” she said. “She has a zest for life.” Despite a little age-related arthritis, Lorelei still shows in the junior class and last the title “Excellent A Performance” in the jumpers.

Dr. Green welcomes phone calls from referring veterinarians and clients regarding radiation therapy and its benefits, scheduling, and estimated costs. He can be contacted by phone at 614-292-3553, or e-mail green.60@osu.edu.

Barnaby Successfully Battles Lymphoma

by Kristine McComis

Karen Denbigh from Spencer, West Virginia became concerned when her 13-year-old cat Barnaby lost a significant amount of weight and was vomiting frequently. She took him to her local veterinarian who examined him and drew blood for laboratory work. Mrs. Denbigh then asked her veterinarian to send the findings to the Ohio State Veterinary Hospital for a consultation. Based on the findings and Barnaby’s continued deterioration, Mrs. Denbigh hopped in her car at 4 a.m. on a Saturday to take him to Columbus—a four-hour drive—for evaluation and treatment. After a stay in the intensive care unit and more testing, the oncology team, including Dr. Kenji Hosoya, a resident in Oncology, diagnosed Barnaby with lymphoma affecting the stomach, small bowel, and other multiple organs in the abdomen. They recommended chemotherapy.

Mrs. Denbigh debated whether to proceed with chemotherapy based upon how sick Barnaby was, the likely prognosis and the possible side effects. She decided to move forward with the treatment despite everyone’s delight, Barnaby responded very positively to chemotherapy.

Nearly a year later, Barnaby is doing remarkably well. He has a healthy weight, has a normal appetite and activity level, and comes in every three months for a recheck.

Veterinary Hospital clinicians instructed Mrs. Denbigh how to give her cat the chemotherapy medication at home in between visits, and she periodically visits her local veterinarian for regular check-ups. “He has responded beautifully to treatment,” Mrs. Denbigh declared. “He has gained his weight back and looks and acts great.” Mrs. Denbigh has recommended her cats for testing and cancer treatment for their pets.

“She has given me almost another year with this beautiful cat. Using chemotherapy, we’ll have with the way he has responded thus far,” she said. “If I hadn’t taken him to Ohio State, he wouldn’t be with me today. He’s been worth every dime.”