



VETERINARY
MRI + RADIOTHERAPY
CENTER OF NEW JERSEY

Veterinary MRI and RT Center of New Jersey

Quarterly Newsletter

Winter
2010



The Veterinary MRI and RT Center of New Jersey was the first veterinary only, free-standing, cross-sectional imaging and radiation treatment center in the world. In fact, during the early years of operation, the center was utilized by institutions such as The Cummings School of Veterinary Medicine at Tufts University, The Animal Medical Center, and The University of Pennsylvania School of Veterinary Medicine for clients in the New York Metro area.

The vision of a handful of specialist and generalist veterinarians, the center officially opened its doors to the public in November of 2002. As there was no veterinary model for such a center, it took two years to organize, develop, and construct a center that was adaptable to animals. To this day, it has remained true to its mission: To offer advanced imaging capability to the general practitioner and specialist alike and act as an extension of the diagnostic armamentarium to improve the lives of the companion animal patient. Not only has the center treated thousands of patients, it has become a vital educational resource for veterinarians in the application of cross-sectional imaging and advanced cancer treatment.

The center has pioneered treatment protocols for the application of radiation treatment and cross-sectional imaging. Thanks to these protocols, only approximately 40% of our radiation cases require general anesthesia. Imaging can often be performed the same day which has added to the dimension of convenience for our modern day and busy lifestyles.

***Board of
Directors:***

***Renee Alsarraf,
DVM, DACVIM***

***John Cali,
DVM, DABVP***

***Joseph DeLucia,
DVM, CCRP***

***Justin Goggin,
DVM, DACVR***

***Chris Hunt,
DVM, BVCS,
DACVS***

***Mike Palescondolo,
DVM***

***Mark Skeels,
DVM, DABVP***

***Justin Strauss,
DVM, DACVIM***

Literature Review

Zwingerberger AL, Schwarz T, Saunders HM; Helical Computed Tomographic Angiography of Canine Portosystemic Shunts. *Veterinary Radiology & Ultrasound*, 2005, Vol. 46(1), pp. 27-32

Helical computed tomographic angiography was performed in 16 dogs with known or suspected portosystemic shunts (PSS). The gold standard of imaging the portal system in veterinary medicine is operative mesenteric portal angiography. However, in humans it has been replaced by CT angiography as it is less invasive and a reliable tool at describing both intra- and extra-hepatic shunting patterns. Fifteen of the dogs had identified PSS on CT while one dog was found to have no PSS present. Shunt vessel origins were identified in 13 of 15 dogs and termination was also noted in 13 of the 15 affected dogs. Five dogs were noted to have a single intra-hepatic shunt, five with a single extra-hepatic shunt, and five with multiple extra-hepatic shunts. All affected dogs underwent additional diagnostic testing (one or multiple tests) to confirm the presence of the vessels; 11 laparotomies, 9 abdominal ultrasounds, 3 necropsies, four angiographies, and two liver biopsies. CT compared favorably with other diagnostic methods. The conclusion of this study was that CT angiography is a minimally invasive method of diagnosis of single intra- and extra-hepatic shunts, as well as multiple extra-hepatic portosystemic shunts.

Internal Medicine Briefing

Portosystemic shunts (PSS) are vascular anomalies that divert blood from the abdominal viscera to the heart, bypassing normal hepatic blood flow. Due to shunting of blood away from portal circulation, toxins, intestinal byproducts, and absorbed bacteria which are normally extracted by the liver, enter systemic circulation. Several shunting patterns, both intrahepatic and extrahepatic in origin, have been described. Reduced blood flow and reduced delivery of hepatotrophic factors to the liver also results in microhepatica.

Hematologic and behavioral abnormalities are commonly described in patients with these anomalies. Presenting complaints often include vomiting, diarrhea, PU/PD, and clinical signs associated with hepatic encephalopathy. Hematologic changes are often, but not always noted in the work up of these patients. These changes can include; microcytosis, hypoalbuminemia, mild increases in ALP and ALT, hypocholesterolemia, low BUN, hyperammonemia, and elevated pre- and post-prandial bile acids. Many animals may also have evidence of urate urolithiasis.

Definitive diagnosis of PSS is based on the demonstration of an abnormal portal venous system. Shunting patterns may be identified using abdominal ultrasound, computed tomography, contrast portal venography, and colorectal scintigraphy.

Surgical correction of these vascular anomalies, both intra- and extra-hepatic, is the treatment of choice. However, clinical signs for hepatic encephalopathy can be controlled using medical therapy for patients that have inoperable disease or in cases where financial constraints are present.

Meet Our Staff

Our Staff:

**Neal Mauldin,
DACVIM (Oncology,
Internal Medicine),
DACVR (Radiation
Oncology)**

**Brian Strobel, DVM
Staff Veterinarian**

**Robin DeMarco
Office Manager**

**Michele Bradley
CVT**

**Susan Stroligo
CVT**

**Vanessa Sliker
CVT**

**Janet Sokol
Radiation
Therapist**

**Kathie Yotka
Radiation
Therapist**

**Rich Sodora
Radiation
Therapist**

**Mike Jones
Radiation
Therapist**



We are pleased to introduce our new staff veterinarian, Brian Strobel DVM, who joined our team in November of 2009. Dr. Strobel graduated with honors from the North Carolina State University College of Veterinary Medicine in 2006. Following graduation, Dr. Strobel completed a rotating internal medicine and surgical internship at the Animal Medical Center in Manhattan. Following his internship, Dr. Strobel moved to California to join the Emergency and Critical Care Service at the University of California at Davis, School of Veterinary Medicine. As a clinical instructor, he performed emergency duties and played an active role in teaching and mentorship of fourth year veterinary students. Dr. Strobel also held a position working in a private practice emergency hospital in Sacramento prior to moving back to the East Coast. His experience at UC Davis and in private practice provided Dr. Strobel with knowledge in all areas of clinical medicine and diagnostics and he is happy to bring these skills to our Center. We are thrilled to have him on our team and we hope that you will feel free to consult with him regarding our advanced imaging techniques and radiation therapy.

Referral of patients for radiation therapy requires a radiation therapy prescription from a board certified veterinary oncologist.

If you have any questions regarding the value of CT or MRI evaluation for a particular patient please do not hesitate to contact our facility to discuss the case prior to requesting an imaging study.

**Veterinary MRI and RT Center of NJ
1071 Paulison Avenue
Clifton, NJ 07042
Ph – 973-772-9902
Fax – 973-772-9904**

**This newsletter can now be viewed on our website
www.vetmri.com by clicking on the hyperlink “newsletter” under
“for veterinarians”**