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Volume I, Issue I
 Spring 2006

To cut or not to cut

Antu Radhakrishnan, DVM, DACVIM

INTERNAL MEDICINE SERVICES OFFERED

- Laparoscopy including laparoscopic cholecystectomy (elective, non-emergency)
- GI endoscopy including foreign body retrieval, rhinoscopy, cystoscopy, and bronchoscopy
- Evaluation, diagnostics, and treatment for various medical ailments including cardiology, neurology, and oncology
- Tracheal and urethral stents
- Consultation (gratis) by phone or e-mail at address above

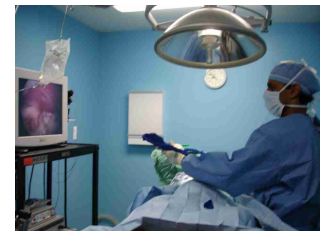
As practitioners, we all face the dilemma of determining the appropriate diagnostic tests for various diseases of the internal organs. Physical examination and laboratory evaluation aid in directing us toward a particular area or system; however, further evaluation can be limited. The liver, kidneys, gastrointestinal tract, and spleen are notoriously troublesome at times. Ultrasound and ultrasound-guided aspirates or biopsies allow us to obtain more information without subjecting our patients to invasive measures. However, all too often, the results of these tests prove to be incomplete or inconclusive. Gastrointestinal endoscopy provides a minimally invasive means to obtain intestinal biopsies. However, biopsies cannot be obtained from the jejunum and the deeper layers of the intestine are not evaluated. Surgical biopsies remain the gold standard for securing a diagnosis, but are sometimes difficult to pursue due to risks to the pets or our desire to maintain a good quality of life for our pets and not subject them to extreme heroics. A viable alternative to this situation is laparoscopy. Laparoscopy is routinely used in human medicine for a variety of complex surgical procedures and

is now more readily available for veterinary patients. We are now offering this service and performing this procedure regularly. Owners desire definitive answers but want to achieve them in a way that does not create undue stress on their loved ones. Laparoscopic biopsies of the liver, spleen, kidney, mesenteric lymph nodes, and intestinal tract can be done to obtain quality samples for histopathology but allow the pet a rapid recovery time. A patient that has a laparoscopic biopsy performed in the morning can usually be discharged in the evening.

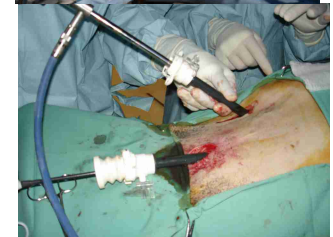
We can also perform laparoscopic-assisted cystotomy, cystoscopy, and gastropexy if indicated. Laparoscopy is also useful for cancer staging. For example, one can determine if a patient is a good candidate for tumor removal by performing gross evaluation of the abdomen with minimal invasion and the additional benefit of obtaining samples for biopsy. If metastatic diseases is suspected from gross examination, recovery from the procedure is still an option since the recovery is less stressful compared to laparotomy.

With time, we envision progressing to thoracoscopy as well as performing surgical procedures via

laparoscopy to complement its diagnostic capabilities. As we strive to provide more options for diagnosis and treatment to our clients, laparoscopy has emerged as a tool that will advance our profession to a new level. Minimally invasive diagnostics allow us to practice the quality medicine we desire without subjecting our patients and their owners to extraordinary measures. Please feel free to call us to discuss the potential for laparoscopy on any of your patients.



Top: Dr. Radhakrishnan performs a laparoscopic procedure on a patient.



Middle: Trocars allow the insertion of a camera and instruments through a 5-10 mm incision.



Bottom: laparoscopic view of the liver in a cat



“Specialty care for four-legged family members.”

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Recent News and Literature

Prognostic indicators in canine parvovirus

A recent study found that the values of band neutrophils, lymphocytes, monocytes, and eosinophils 24 and 48 hours after admission compared to values upon presentation are reliable indicators of prognosis in this disease. While most patients develop a severe leukopenia and neutropenia, survivors had a marked increase in lymphocytes, monocytes, and eosinophils as well as band neutrophils. The findings suggest that performing a good differential analysis of the blood smear will allow clinicians to give pet owners prognostic indicators that will help owners with the decision to continue with treatment. Non-survivors typically maintained severe lymphopenia, monocytopenia, and eosinopenia 24 and 48 hours after admission.

JVIM, Mar/Apr 2008

Differentiation of vaccinated FIV+ cats from naturally infected cats

A new discriminant ELISA is being developed that may help in differentiating naturally infected FIV cats from those that have been vaccinated. Currently available screening tests do not differentiate between the two. The results of a study investigating the new discriminant ELISA are promising but it is not commercially available yet. At this time the best option for trying to differentiate between natural infection vs vaccination is PCR testing. This option is not ideal but is the currently recommended test.

JVIM, Mar/Apr 2008

Vetmedin for the treatment of mitral valve disease in dogs

Vetmedin (pimobendan) has been found to be effective for dilated cardiomyopathy. A recent study looking at 260 dogs evaluated the benefit of this medication in dogs with mitral valve disease. Dogs were divided into two treatment groups: pimobendan and benazepril. The pimobendan group had a significantly longer survival time (267 days vs. 140 days). The study did not evaluate the effect of combined therapy of pimobendan and an ACE inhibitor. Presumably the two should be used together in a patient with mitral valve disease. Furosemide should be introduced with congestive heart failure. Further evaluation will most likely be pursued to determine the effect of combination therapy.

JVIM, Sept/Oct 2008

Feline dysautonomia in the United States

Dysautonomia is a disease characterized by degeneration of the neurons in the autonomic nervous ganglia resulting in failure of the sympathetic and parasympathetic nervous systems. The cause is unknown and prognosis is poor. Canine cases in the US have primarily occurred in Kansas and Missouri while reported feline dysautonomia cases occurred mainly in Europe. A recent paper retrospectively identified nine cases in cats between 2001 and 2006 with a similar geographic distribution to dogs (Kansas and Missouri). Clinical signs included lethargy, anorexia, vomiting, mydriasis with no PLR, prolapse of the nictitans, dry mucous membranes, and bradycardia with no response to atropine. 7 of 9 cats were euthanized due to deterioration of condition within 5 days. Two cats survived for over 11 months.

J Fel Med Surg, April 2008

Meet our staff

Karen Williams—Karen started with BVS from its inception in 2005. She is a graduate of Morehead State University's Veterinary Technology Program. She enjoys many aspects of internal medicine but particularly enjoys working with pet owners to achieve their goals for their pets.

Tasha Wurm—Tasha joined BVS in May 2008 after spending two years as a surgical technician with MedVet in Columbus, OH. She also has experience with exotic animals and aspires to go to veterinary school.

Rebecca Volkert—Rebecca joined BVS in February 2007. She is a graduate of Murray State University's veterinary technology program. Rebecca is working on development of a cancer support group for our clients.

Susan Burke—Susan has been working part-time for BVS since May 2008. She is a pre-veterinary student at the University of Kentucky and just completed her application to veterinary school.