



**2568 Richmond Road  
Lexington, KY 40509  
Phone (859)268-4444  
Fax (859)268-7872  
www.bluegrassveterinaryspecialists.com**

Volume 1, Issue 2

June 2006

## Liquid Gold or Mellow Yellow?

Urine samples are not commonly part of the minimum database despite being emphasized in veterinary school. The thought of trying to collect the urine is typically unappealing and the results of urinalysis are commonly thought of as unrewarding. However, even a normal urinalysis is informative and the potential loss of information by not obtaining urine from the onset of the problem can be more of a nuisance than the act of walking the dog or performing cystocentesis or catheterization.

From pre-renal vs. renal azotemia to polyuria/polydipsia to inflammatory disorders, the results of a complete urinalysis can help discriminate between a variety of disease processes with a relatively inexpen-

sive test. It will also complete a systemic evaluation of the patient, particularly important in our geriatric population. The information complements a CBC and serum chemistry. Urine cultures should be performed anytime pyuria or bacteriuria is identified, or when evaluating a patient with a disease process that predisposes them to urinary tract infection (diabetes mellitus or Cushing's disease).

More extensive urinary tract evaluation via urine protein:creatinine ratio, ultrasonography, and cystoscopy or laparoscopy can then allow a veterinarian to achieve definitive information and institute an appropriate treatment plan.

Identifying poorly concentrated urine, early proteinuria, asymptomatic hematuria or pyuria will allow us to diagnose patients early and improve response to treatment and prognosis. Proteinuria identified early in the course of chronic renal insufficiency patients has been associated with decreased survival time (JAVMA, Feb 1, 2005). Therapy with ACE inhibitors would be indicated in a patient with elevated UPC. Owners will appreciate the attention to detail at a price that they can afford. The urinalysis and even urine protein:creatinine ratio can and should be a part of a geriatric wellness plan. These simple tests will be of benefit to your practice and to your patients, and the sample will ultimately prove to

## January BVS CE Summary

The CE event on January 29th was received very well. A total of 70 veterinarians and technicians were in attendance. The event was sponsored by Pfizer, Merial, Wickliffe Pharmacy, and Neogen. Speakers included Dr. John Hume of North Lexington Veterinary

Clinic (Common Hip Procedures), Dr. Erica Tolar, a resident in ophthalmology at the University of Illinois (Feline ophthalmology), Dr. Dave Denman, radiation therapy at the CARE center in Cincinnati (Radiation therapy), Dr. Ray Arza, representative for Lumenis (Lasers),

and Dr. Antu Radhakrishnan of BVS (difficult urinary tract diseases). Watch for our next CE event scheduled for November in Lexington.

Antu Radhakrishnan, DVM  
Diplomate, American College of Veterinary Internal Medicine

### INTERNAL MEDICINE SERVICES OFFERED

- Laparoscopy
- Endoscopy including foreign body retrieval, rhinoscopy, cystoscopy, and bronchoscopy
- Evaluation, diagnostics, and treatment for various medical ailments including cardiology, neurology, and oncology
- Telephone consultation (gratis)

### GENERAL INFORMATION AND NEWS

- We now have a 2.5 mm flexible endoscope which can be utilized for cystoscopy in male dogs as well as bronchoscopy in patients under 15 lbs.
- We have interviewed several ophthalmologists with the hope that one will begin practicing here in the next 18 months.
- We currently have L-asparaginase available for lymphoma patients. It is an excellent first treatment or can be used for relapse.
- In collaboration with West Liberty Veterinary Clinic and Sheabel Animal Medical Center, a quarterly Eastern Kentucky Veterinary Symposium has been launched. Veterinarians and staff are invited. The March and July CE's were attended by over 50 people. The next one will be November 18 in West Liberty. Register on-line at [mrcrc.com](http://mrcrc.com) or call Amanda at (606)743-3776.

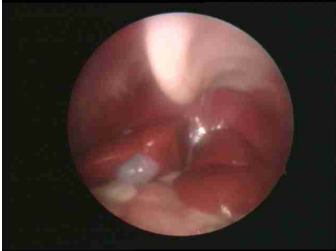
Continued on reverse side

**Bluegrass Veterinary  
Specialists**

2568 Richmond Road  
Lexington, KY 40509

Phone: 859-268-4444  
Fax: 859-268-7872

www.bluegrassveterinaryspecialists.com



Above: Gross visualization of abdominal cavity. Although rounded, there are no grossly visible lesions on the liver.

Below: After biopsy. There is minimal hemorrhage.



Laparoscopy Update

In the last issue we took a look at laparoscopy as a diagnostic tool. Here is a case that presented for evaluation and how the procedure helped with the diagnosis. An 11-year-old, male castrated, DSH presented for evaluation of progressively increasing ALT and weight loss. Over three months, the ALT increased from 200 to 900 U/L and the cat gradually lost several pounds. He never lost interest in food, had no vomiting, and continued with normal activity. Abdominal ultrasound revealed some increased echogenicity of the liver but no masses or clear etiology behind the problems. Differentials included cholangiohepatitis and neoplasia. A fine needle aspirate was considered but not performed because commonly, not enough cells are obtained to clearly illustrate the disease process. In fact, two recent papers in JAVMA illustrated the lack of correlation between cytology and histopathology (January 1, 2004 and April 1, 2003). A laparoscopic liver biopsy was obtained with the result being small cell, low grade lymphoma. Typically, this type of lymphoma cannot be diagnosed on cytology; histopathology is required for differentiation of small cell lymphoma from inflamed or reactive tissue (Compendium, January 2005). The larger biopsy allowed a definitive diagnosis. In addition, this patient had a mildly elevated prothrombin time. The laparoscopic cup biopsy instrument allows for crushing of the margin of the tissue to achieve better hemostasis as opposed to a Tru-cut needle which simply slices. With visualization through the scope, we were able to ensure adequate hemostasis and apply gel foam. The cup biopsy forceps even allows us to biopsy the spleen without significant hemorrhage. This patient is now being treated for his disease and responding well with increased activity and appetite (which the owners did not previously appreciate was abnormal) and weight gain. The ALT decreased to 310.

**Veterinary News & Tidbits**

**Avian Influenza in Cats**

Cats in Europe have recently been identified as contracting the avian influenza virus H5N1. The infection was suspected to have been contracted by feeding on infected birds. Large cats in zoos apparently have been infected by feeding on chicken carcasses.

This information will create anxiety amongst our clients and therefore good client education will be essential for prevention of this disease in domestic cats as well as preventing the needless abandonment of cats by worried owners.

**New therapy for heart failure**

Pimobendan is a relatively new positive inotropic agent and arteriovenous dilator that may be of benefit in heart failure patients. While its primary use may be for dilated cardiomyopathy, one study found it to also be beneficial for valvular-induced CHF. The medication appears to be safe and well tolerated at a dose of 0.25 mg/kg q 12 hours. The medication is not approved by the FDA yet but can be imported with approval on a case by case basis. The medication is currently under review with the hope that it will be licensed for use in the United States by 2007.

**Diagnosing feline pancreatitis**

Pancreatitis in cats is a notoriously difficult disease to diagnose. Poor sensitivity and specificity of routinely utilized tests along with vague clinical signs are the main reasons for this problem. Cats produce relatively low amounts of amylase making amylase measurements unhelpful; total serum lipase may be normal in pancreatitis or elevated due to other disease processes. Ultrasonography has been found to have varying degrees of sensitivity for feline pancreatitis. Feline pancreatic lipase immunoreactivity (fPLI) in conjunction with abdominal ultrasound improves the sensitivity and specificity of diagnosing pancreatitis in cats. Pancreatic lipase is lipase specifically produced by the pancreas. The fPLI is performed by Texas A&M University.