

PATIENT: Asproolee
OWNER: Hale, Tina
SPECIES: Canine
AGE: 13y male
VETERINARIAN:

REFERRAL#: 08-0486
DATE: 07/11/2008
BREED: Toy Poodle

CLINIC: Madison Animal Care Hospital

REFERRAL INTERPRETATION

Dear Tina:

Thank you for sending the barium upper gastrointestinal radiographic study and ultrasound images of your pet Asproolee for interpretation. There are six abdominal radiographs (Madison Animal Care Hospital, Madison, AL; copy films) dated 2-11-08 and 17 abdominal ultrasound images from 2-08-08 (Birmingham Veterinary, paper prints viewed as pdf images). Also provided is a case summary and medical record for review.

The barium series that I have available begins 5 hours after barium administration (copies of radiographs made earlier were not made; the medical record indicates radiographs were made immediately, 15 minutes, 30 minutes, 60 minutes, 2 hours, and 3 hours after barium administration and that there was normal gastric emptying and progression into and through the small intestine).

At 5 hours, the right lateral and ventrodorsal (VD) images show only a small amount of barium remains in the stomach. The small intestine is nearly completely filled with barium, and there is barium in the cecum and proximal-most ascending colon. The ileocolic sphincter is easily identified, but not considered abnormally narrowed; the mucosa of the ileocolic sphincter is smooth. Some portions of the small intestinal mucosa are irregular and the intestinal wall in these areas is mildly thickened. None of the small intestine is abnormally dilated, as would be expected with an obstruction. At 6 hours, the stomach has emptied further, with only a residual amount of barium remaining. The ascending, transverse, and proximal descending colon contain barium feces; the cecum contains gas and barium. As before, portions of the small intestine have irregular mucosa and the intestinal wall appears thickened. The ileocolic sphincter is again identified. At 7.5 hours, the stomach is completely empty, there is barium within the majority of the small intestine, and the colon has barium feces as before. The ileum is noted to be a bit larger in diameter than on the two earlier time points, but radiographically is not pathologically distended. The ileocolic sphincter is easily identified.

Overall abdominal detail is good. The liver is normally sized although the caudoventral margin is rounded. The kidneys are well seen on the lateral views and are normal for size and shape; urinary calculi are not seen. The head of the spleen is seen on the VD view and is normal; it cannot be seen on the lateral view. Mild narrowing of thoracic intervertebral disc spaces T11-12 and T12-13 is noted. The hips are normal.

The ultrasound images do not show any abnormalities. The colon is seen, as is the right lobe of the pancreas, the right and left kidneys, portions of the liver and spleen, the gallbladder and the urinary bladder.

Summarizing all of the above, the radiographic diagnosis is suspicion of mild infiltrative small intestinal disease.

Since abdominal surgery was performed, we have the benefit of not only the surgeon's visual observations but histopathology results which indicate that the small intestine (jejunum) was normal. Therefore, my impression of small intestinal disease radiographically is refuted, although there may have been diseased portions of the jejunum which were not sampled at surgery. The ileocolic sphincter was essentially normal, with only subjective

mild muscular thickening noted by the pathologist. The liver did have pathologic changes of moderate to marked severity (vacuolar hepatopathy). This is the most relevant microscopic finding, which as indicated by the pathologist is often associated with corticosteroid excess (from excessive adrenal gland production or exogenous administration). It can also be seen with other endocrinopathies, including diabetes mellitus. However, blood work did not show biochemical alterations in the liver values (ALP, ALT) or blood sugar.

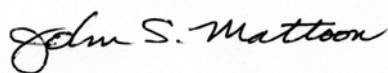
The question remains why was Asproolee sick, and what disease or set of circumstances lead to his passing? The answer is not apparent from his blood work, or his histopathology, or the imaging studies. Clearly, we know he did not have an intestinal obstruction. The initial sickness of vomiting and bloody diarrhea can be caused by a myriad of disorders, including primary gastrointestinal disease, pancreatitis, metabolic disturbances, etc. Asproolee's blood work does not support pancreatitis as a cause, nor do his normal ultrasound and radiographs. In fact, his blood work was amazingly normal giving how sick he was.

The medical records indicate that his condition markedly worsened several days following surgery, presenting to the emergency hospital critically ill (seizure, agonal breathing). No one can say whether the exploratory surgery was directly responsible of Asproolee's deteriorating condition, or if it was simply the added stress of surgery that ultimately compromised his system. The blood work at this time does now show many abnormalities including a very low blood glucose, kidney function compromise, and indications of liver disease. The low blood sugar may be responsible for Asproolee's seizure. Dehydration can explain the compromised kidney function.

I am afraid we will never really know why Asproolee died. I understand that an autopsy (termed necropsy in veterinary medicine) was not appropriate given the circumstances, but honestly this would have been our only chance to really know. And even then, sometimes the answer remains elusive. As we have discussed via email, my expertise is diagnostic imaging, and not internal medicine or surgery. It may be appropriate for someone with expertise in these areas to further review all of Asproolee's medical information, including my imaging assessment. Perhaps someone else can help narrow the spectrum of possibilities.

You have my sincerest sympathy, Tina. I truly understand how our pets affect our lives in such a positive way. Losing a pet is incredibly difficult, regardless of the circumstances. The wonderful memories of Asproolee will at times sadden you, but over time the smiles prevail.

Most sincerely,

A handwritten signature in black ink that reads "John S. Mattoon". The signature is written in a cursive, flowing style.

John S. Mattoon, DVM, Diplomate ACVR
Associate Professor, Radiology