



PATIENT	PRESENTING CLINICAL SIGNS
Kermit McKenna	History: Melena, decreased app and lethargy- pet did eat this morning before ultrasound Diabetic but not ketotic Abnormal PE/Chem/CBC/UA Results: July 2nd: CBC HCT 44%, Neut 17Km WBC 21K GLu 179, ALP 1028 Yesterday: CBC: HCT 20K, MCV 81, MCH 20.6, MCHC 25, Retic 315, WBC 35.8, Neut 31K Band 71, Moderate anisocytosis, Slight spherocytes, neutrophils slightly toxic, Rouleaux present but saline agglutination negative
SPECIES	
Canine	
BREED	ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN
Pug	Urinary System
SEX	Urinary bladder is adequately distended. It has a normal uniform wall thickness. Contents include primarily anechoic fluid with occasional echogenic non-shadowing debris, most consistent with exfoliated cells, mucous and/or small blood clots. Several, discrete, hyperechoic non-shadowing densities are noted. Cystoliths cannot be ruled out. Other differentials are mucous plugs, blood clots, etc. The trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.
Neutered male	
AGE	Prostate (neutered) is normal in size, echotexture and echogenicity for a neutered male.
11 years	Left kidney is normal is size (5.1 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. A hyperechoic band parallel to the corticomedullary border is present. There is no evidence of pyelectasia, mineral or infarcts observed.
WEIGHT	Right kidney is normal is size (5.0 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. A hyperechoic band parallel to the corticomedullary border is present. There is no evidence of pyelectasia, mineral or infarcts observed.
26 lbs	
INTERPRETED BY	
Beth Johnson, DVM DACVIM	
IMAGING PERFORMED BY	Adrenal Glands
Dr. Scott	The adrenal glands are unable to be well visualized.
HOSPITAL NAME	Spleen
HoHoKus VH	Spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). Multifocal well-demarcated hyperechoic homogenous nodules are noted. Splenic vasculature appears normal.
REFERRING VET	Liver
Dr. Eisenberg	Liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.
INVOICE	
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PATIENT	Gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.
Kermit McKenna	
SPECIES	<i>Gastrointestinal</i>
Canine	The entire greater curvature of the stomach is mildly thick and measured 1.5 cm thick, hypoechoic in appearance with early emerging loss of layering. The stomach is mildly distended with mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.
BREED	
Pug	The visible small intestines are normal in wall thickness and layering. Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.
SEX	
Neutered male	The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.
AGE	
11 years	<i>Pancreas</i>
	The observed pancreas appears appropriately isoechoic to surrounding omental fat. Visible capsule is smooth and normal in contour. Visible pancreatic parenchyma is homogenous and unremarkable. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.
WEIGHT	
26 lbs	<i>Free Abdomen</i>
INTERPRETED BY	There is no evidence of peritoneal effusion or apparent lymphadenopathy noted in these images. Tissue surrounding the stomach is mildly enhanced/hyperechoic in appearance.
Beth Johnson, DVM DACVIM	
IMAGING PERFORMED BY	ULTRASONOGRAPHIC FINDINGS
Dr. Scott	Primary Findings
HOSPITAL NAME	Mildly thick gastric wall with early emerging loss of layering suspected.
HoHoKus VH	Secondary Findings
REFERRING VET	Medullary rim sign - This finding is of unknown clinical significance and can be a normal variant, often idiopathic. Medullary rim sign can be present with renal disease including FIP, lymphoma, hypercalcemic nephropathy, Leptospirosis, tubular disease, other and should be interpreted in combination with other more specific indications of kidney disease such as isosthenuria, proteinuria, azotemia, etc. This is a common incidental finding in patients with diabetes mellitus.
Dr. Eisenberg	Urinary bladder debris.
INVOICE	Hyperechoic splenic nodules – most consistent with benign myelolipomas. Other differentials such as fibrosis or calcification caused by old hematomas or infarcts, chronic inflammation, granulomatous disease or metastatic disease cannot be ruled out, but are considered less likely.
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PATIENT

Kermit McKenna

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given the reported melena combined with the reported spherocytosis in this patient include a GI bleed as well as potentially hemolysis could be contributing to the patient's anemia.

SPECIES

Canine

BREED

Pug

SEX

Neutered male

AGE

11 years

WEIGHT

26 lbs

1. If the hemorrhage (melena) is believed to be severe enough to be causing this patient's new anemia, and a conservative approach is elected then medical management of a GI bleed with antacids such as b.i.d. Omeprazole, Sucralfate, broad spectrum antibiotics and symptomatic support of gastrointestinal signs with close monitoring of both the melena as well as the red blood cell count for either progression or improvement could be considered along with empirical deworming with a 5 day course of Panacur. However, if a more aggressive approach is elected either a FNA of the stomach wall could be considered if the patient's coagulation status is appropriate or gastroscopy could be considered for further evaluation of the gastric mucosa as well as biopsies of the stomach.
2. If hemorrhage alone was contributing to this patient's anemia then a decrease in total solids would be expected. Therefore, if the hemorrhage is mild then the gastric changes could be secondary incidental and/or reactive/inflammatory and if hemolysis is determined to be a larger contributing factor to the anemia then further work-up of the hemolysis with infectious disease testing followed potentially by immunosuppressive therapy may be warranted. If this approach is elected, a recheck ultrasound (fasted if possible) of the stomach is recommended in 1-2 weeks.
3. Three view thoracic radiographs are recommended for further assessment of cardio-pulmonary status as well as to further evaluate for any evidence of metastatic disease, if not recently evaluated.

INTERPRETED BY

Beth Johnson, DVM
DACVIM

IMAGING PERFORMED BY

Dr. Scott

HOSPITAL NAME

HoHoKus VH

REFERRING VET

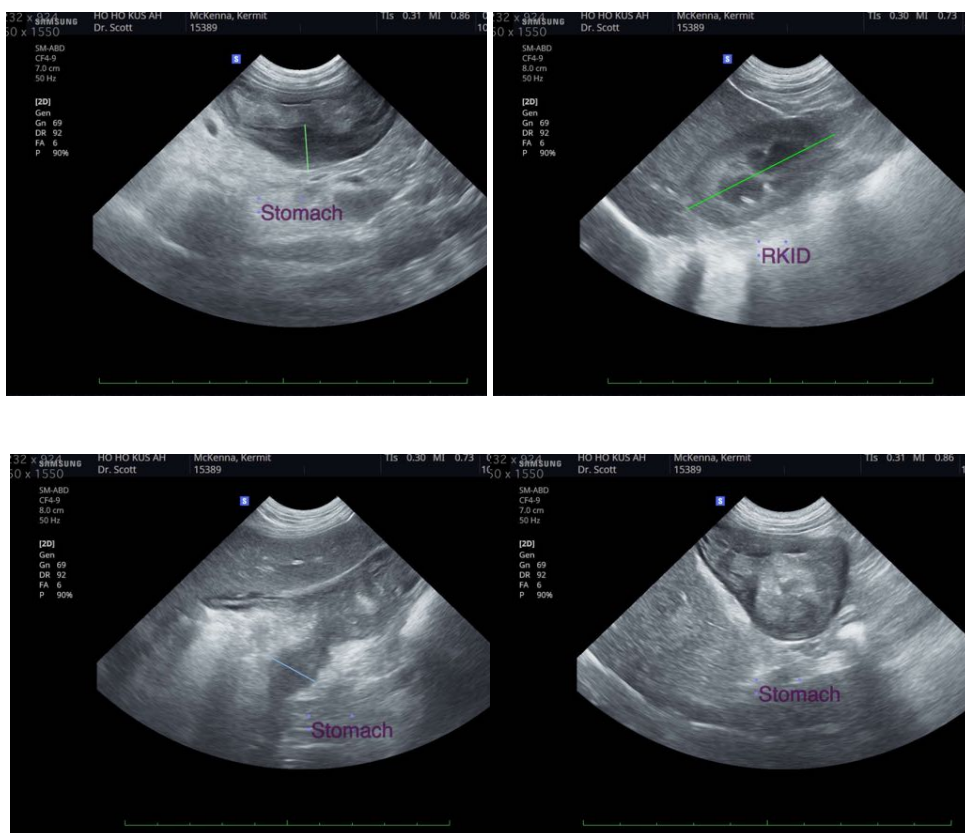
Dr. Eisenberg

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INTERPRETED BY

Beth Johnson, DVM
DACVIM

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance please contact me.

IMAGING PERFORMED BY

Dr. Scott

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REFERRING VET

Dr. Eisenberg

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