

## PATIENT

Candy Montgomery

## PRESENTING CLINICAL SIGNS

## SPECIES

Canine

some straining to defecate and blood noted by owner-  
Abnormal PE/Chem/CBC/UA Results: WBC 46, MONO 4.5, NEU 37 UA: no evidence of infection

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

## BREED

Pomeranian

### Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 cm exhibited normal thickness and tone. Mild asymmetrical luminal surface to micropolypoid changes were present likely associated with age related mural changes. Minor particulate sediment present. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

## SEX

Spayed Female

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. Pinpoint to focal areas of medullary mineral present. The left kidney measured 4.4 cm. The right kidney measured 4.6 cm.

## AGE

13 Years

## WEIGHT

11 Pounds

### Adrenal Glands

The left adrenal gland exhibited mid to caudal pole enlargement, symmetrical contour, and non-homogeneous to uniformly hypoechoic parenchyma within the area of the left adrenal caudal pole. No evidence of mineralization. The left adrenal gland measured 2.4 cm length x 0.58 cm at the cranial pole and 1.5 cm at the caudal pole.

## INTERPRETED BY

R. McKenzie Daniel,  
DVM, DABVP

The right adrenal gland was mildly enlarged, measuring 2.2 cm length x 0.8 cm at the cranial pole and 1.4 cm at the caudal pole. Mild parenchyma heterogeneity and mild capsule asymmetry was present without suspicion for overt neoplasia. No overt evidence of vascular invasion associated with the left or right adrenal gland.

## IMAGING BY

Loetitia Saint-Jacques,  
LVT

### Spleen

The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted.

## HOSPITAL NAME

Pine Creek VC

## REFERRING VET

Dr. Denny Nolet

### Liver

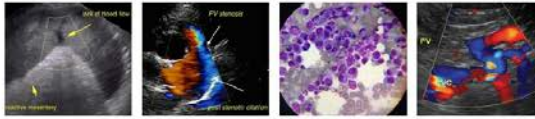
The liver presented increased in size. The parenchyma of the liver was subjectively increased in echogenicity compared to the spleen and renal cortices. The echotexture of the liver parenchyma was uniform with a mild coarse echotexture. The capsule of the liver was symmetrical in margination. Intermittent subtly hypoechoic, non-expansive parenchymal nodules were present. The hepatic and portal vasculature were normal in appearance without signs of congestion.

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25456

## DATE

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## PATIENT

Candy Montgomery Moderate non-dependent yet non-organized gallbladder debris was present. The gallbladder was otherwise normal. The cystic and common bile ducts were normal.

## SPECIES *Gastrointestinal*

Canine The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction or foreign material.

## BREED

Pomeranian The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material.

## SEX

Spayed Female The distal colon to colorectum at the level of the urinary bladder and cystourethral junction exhibited mild asymmetrical mural hypertrophy and loss of discernable wall layering, measuring approximately 3.0 cm in length with wall width up to 1.1 cm. The rest of the visualized colon was sonographically unremarkable, containing semiformed feces.

## *Pancreas*

## AGE

13 Years The parenchyma of the left limb, body and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease was evident.

## WEIGHT

11 Pounds *Free Abdomen*  
A solitary, mildly prominent to enlarged medial iliac lymph node was present, measuring 1.7 cm length x 0.49 cm width. The lymph node was essentially isoechoic to adjacent omentum without evidence of peripheral inflammation and maintaining a normal width: length ratio (<0.5). No other evidence of intraabdominal or retroperitoneal lymphadenopathy. No effusion.

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## ULTRASONOGRAPHIC FINDINGS

## IMAGING BY

Loetitia Saint-Jacques,  
LVT

- Distal descending colon/colorectal mural mass – neoplasia favored, leiomyoma/leiomyosarcoma, adenocarcinoma, lymphoma, stromal tumor, or other possible.
- Bilateral asymmetrical to variable adrenomegaly with non-homogeneous to indistinctly nodular parenchyma.
- Hepatomegaly with primarily echogenic to focal hypoechoic, nodular parenchyma.
- Moderate gallbladder debris (non-mucocele).
- Solitary mild medial iliac lymphadenopathy – subjectively benign/reactive, not overtly indicative of metastatic criteria.

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## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

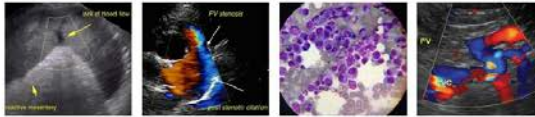
The appearance of the liver was nonspecific but may indicate steroid or other vacuolar hepatopathies, focal areas of probably hematopoiesis or nodular/regenerative hyperplasia, chronic hepatitis/cholangiohepatitis, lipidosis, while round cell hepatic neoplasia cannot be excluded. Assuming normal coagulation parameters, ultrasound guided FNA of the liver using a 25-gauge needle would be warranted for cytology, primarily to assess for evidence of inflammatory cells and to rule out round cell neoplasia. Vitamin K administration would be

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Candy Montgomery suggested prior to FNA if elected. Serum cobalamin levels may be considered if hepatic lipidosis is confirmed.

**SPECIES**

Canine

The adrenals may indicate age related changes, adenomatous change, or hyperplasia, while the possibility of emerging primary versus metastatic neoplasia is possible. Screening blood pressure is advised. Full adrenal workup including LDDST may be considered if clinically indicated. Endoscopic colorectal mural biopsies required for definitive diagnosis.

**BREED**

Pomeranian

**SEX**

Spayed Female

**AGE**

13 Years

**WEIGHT**

11 Pounds

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**IMAGING BY**

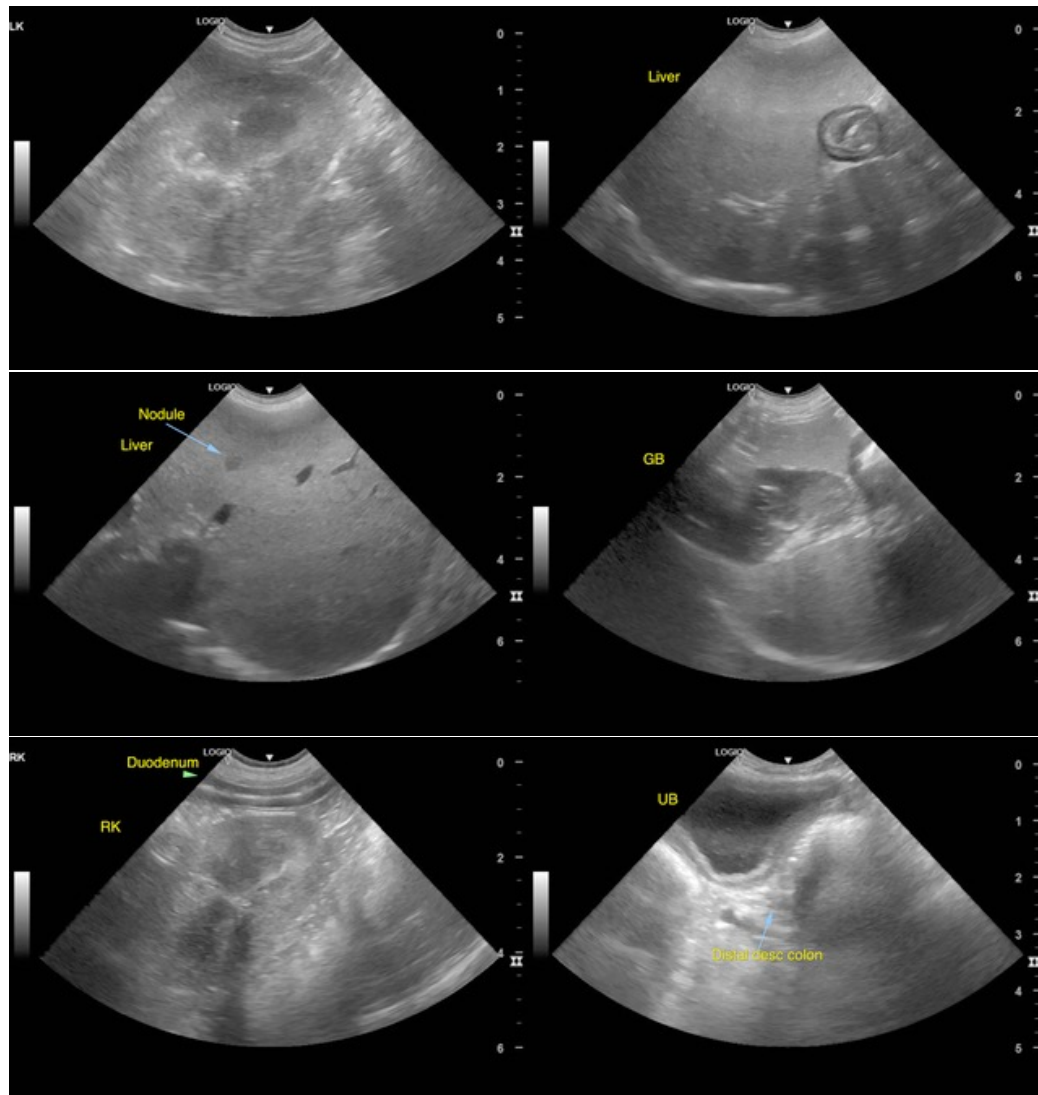
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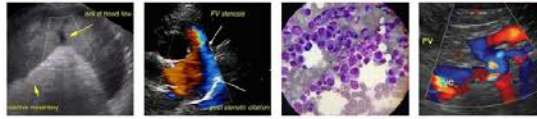


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**SPECIES**

Canine

**BREED**

Pomeranian

**SEX**

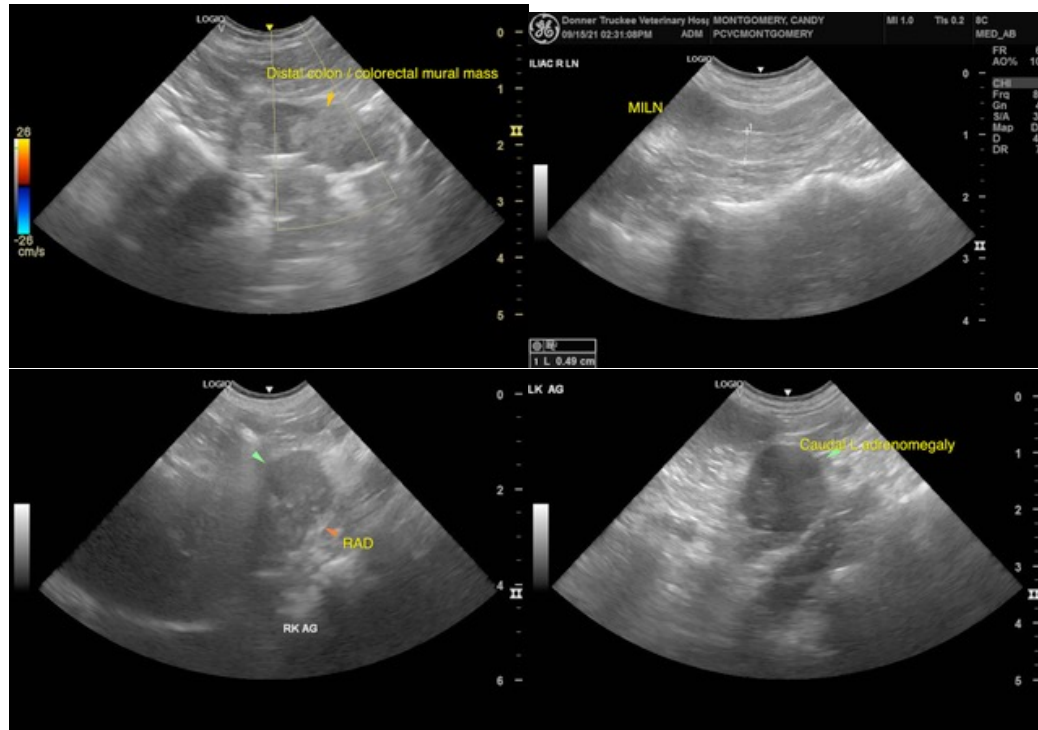
Spayed Female

**AGE**

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**WEIGHT**

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The information and recommendations provided are based on the images presented by the referring veterinarian. 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.

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