



PATIENT PRESENTING CLINICAL SIGNS

Polly Tukua History: 8/13/2021: Lethargy/seizure. Lethargy for the last 3 weeks. Owner noticed a subtle change in energy shortly after vaccines 3 wks ago. Patient had a seizure 2 d ago and since then, patient has had ataxia and worsening lethargy. Progressively poor appetite during this span. Recent coughing after drinking water. No S/V/D. No historical problems/current medications reported. AUGUST 14th 20201:CBC/chem/T4/FT4ED/HWT/UA: Mild neutropenia and lymphopenia, moderate to severe nonregenerative, normocytic, and hypochromic anemia (Hct=17%) with agglutination, 1+ hemolysis, and slight polychromasia, moderate thrombocytopenia with clumping and decreased estimate, mild ALKP elevation, moderate hyperglobulinemia, moderate precision PSL elevation, rest unremarkable. TT Dr. Eli (Antech internist) and provided case summary. Very likely IMHA secondary to vaccine. No bone marrow response or hyperbilirubinemia due to early stages of disease process. Murmur likely physiologic from anemia and platelets not low enough to classify as Evan's syndrome. Rec initiate immune suppressive therapy and do AUS/tick PCR. TTO and provided results. Owner reported patient still lethargic and with a poor appetite, but still relatively responsive and following her around the house. MM still appear light pink. Gave diagnosis of IMHA and guarded prognosis. Rec add on tick PCR and recheck in-house PCV before initiating Add-on Tick PCR to Antech. Recheck PCV=20%. Static with Hct=17% yesterday on Antech labs.

Canine

Chihuahua

Spayed Female

9 Years

8 Pounds

Abnormal PE/Chem/CBC/UA Results: 8/13/2021:Chest and abdo rads with no AIS review (owner declined): No cardiomegaly with VHS=10.5, no overt pulmonary masses, and no overt pulmonary or pleural pathology. Left kidney urolith, otherwise unremarkable abdomen with no overt masses or organomegaly.

INTERPRETED BY ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2.0 cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

The left kidney has a normal shape and size (3.6 cm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex: medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of infarcts or hydroureter. There is renal pelvic dilation (0.17 cm) present and numerous small non-obstructive nephroliths (0.17 cm and 0.18 cm). Renal vasculature is normal.

The right kidney has a normal shape and size (4.2 cm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex: medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of infarcts or hydroureter. There is renal pelvic dilation (0.19 cm) present and numerous small non-obstructive nephroliths (0.34 cm). Renal vasculature is normal.

Adrenal Glands

The right adrenal gland is normal in size measuring 0.36 cm at the caudal. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

IMAGING PERFORMED BY

Loetitia Saint-Jacques, RVT

HOSPITAL NAME

Donner Truckee VH

REFERRING VET

Dr. India Vannini

INVOICE

12559

DATE

8/17/21



PATIENT

Polly Tukua The left adrenal gland is normal in size measuring 0.52 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

SPECIES

Canine **Spleen**

The spleen is subjectively normal in size, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

BREED

Chihuahua **Liver**

SEX The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed. The gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are primarily anechoic. The cystic and common bile ducts are normal.

Spayed Female

AGE

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Gastrointestinal

WEIGHT

8 Pounds

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

INTERPRETED BY

Kathleen Sennello
DVM, MS, Diplomate
ACVIM (Small Animal
Internal Medicine)

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. The duodenum measured as normal (between 0.3-0.5 cm in wall thickness) and the jejunum measured as normal (between 0.2-0.47cm.) Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

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Loetitia Saint-Jacques, RVT

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

HOSPITAL NAME **Pancreas**

Donner Truckee VH

The pancreas is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

REFERRING VET **Free Abdomen**

Dr. India Vannini

A small volume of anechoic free fluid was noted in the peritoneal cavity. No lymphadenomegaly. The omentum is of normal echogenicity.

INVOICE **ULTRASONOGRAPHIC FINDINGS**

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- Decreased corticomedullary distinction in both kidneys with mild pyelectasia and non-obstructive nephroliths- Mild loss of corticomedullary distinction in both kidneys could be

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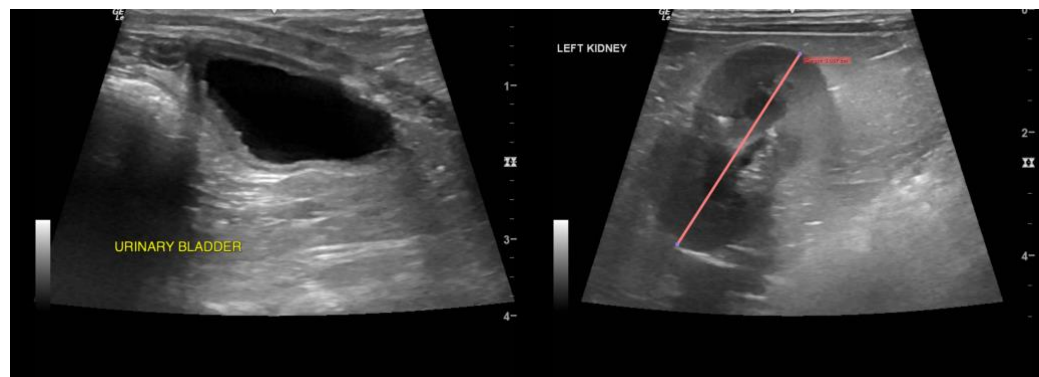
Dr. India Vannini

consistent with chronic degenerative disease or interstitial nephrosis. Pyelectasia of the left/right kidney could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other

- Mildly heterogeneous liver-The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy
- Small amount of anechoic free abdominal fluid- The findings are most consistent with systemic inflammation/vasculitis

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There is no obvious large mass effect visualized or changes in the small intestine to explain an anemia. Based on history of multiple cell lines down (red blood cells, neutrophils and platelets), consider bone marrow aspirate to look for evidence of immune mediated disease directed at the bone marrow or primary bone marrow disease (leukemia etc.). Testing for infectious/tick borne disease is an excellent idea and continued monitoring of a CBC with parameters as sometimes these change and give you a clue as to what is going on. Sometimes I will consider adding in melatonin to refractory IMHAs/ ITPs and it's very safe and unlikely to cause any issues. Continue to monitor the stool for any melanin.



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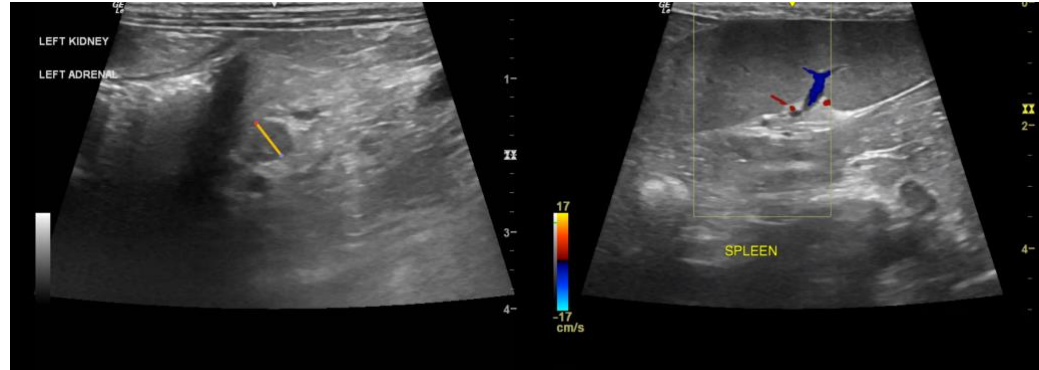
Polly Tukua

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SEX

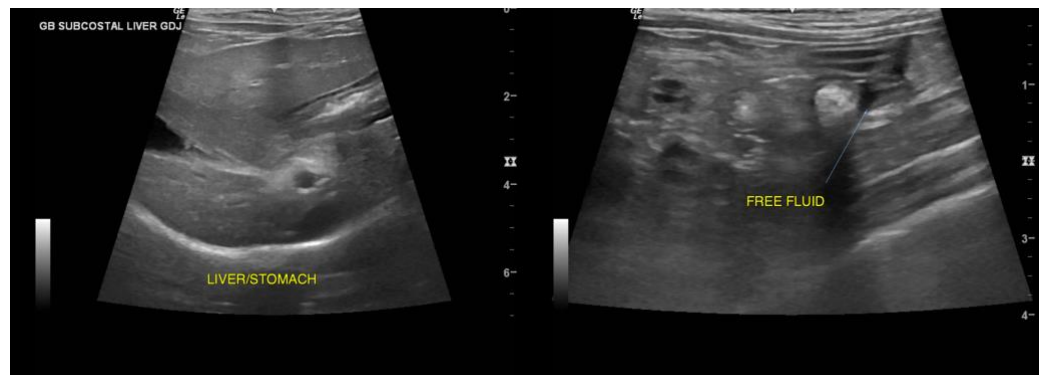
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

IMAGING PERFORMED BY

BY

Kathleen Sennello DVM,MS, Diplomate ACVIM (Small animal Internal Medicine)

Loetitia Saint-Jacques, RVT

kathleen.sennello@sonopath.com

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