

**DATE PRESENTING CLINICAL SIGNS**

10/21/21

Hyperproteinemia - skin chronic and unmanaged vs inflammation other or other. Hyperglobulinemia - skin chronic and unmanaged vs inflammation other (neoplasia). Hypoalbuminemia - skin loss vs gi or renal loss. Chronic elevated cholestatic liver enzyme persistent - secondary to medication (apoquel vs intermittent steroid vs topical steroid use? steroid hepatopathy) vs other secondary gi/endocrine or liver primary. Hypochloridemia - gi vs skin loss vs respiratory acidosis
reticulocytosis - actual vs spurious vs secondary splenic contraction.

PATIENT

Reeces Gianforte

SPECIES

Canine

Current Medications: Rilexine 150mg 1.5 BID; Apoquel; Idexx Immunotherapy
Date of Previous IntraPet Ultrasound: No previous
Sedation: not needed
Stat Report: not requested

BREED

Poodle

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**SEX**

Spayed Female

Urinary System

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

AGE

2011

The left kidney has a normal shape and size (4.67 cm) with pinpoint non-obstructive nephroliths and corticomedullary rim sign. 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 pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

WEIGHT

17.3 Pounds

The right kidney has a normal shape and size (4.63 cm) with pinpoint non-obstructive nephroliths and corticomedullary rim sign. 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 pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

INTERPRETED BY

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Adrenal Glands

The left adrenal gland is normal in size measuring 0.56 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.

HOSPITAL NAME

Happy Tails VH

The right adrenal gland is normal in size measuring 0.57 cm at the caudal pole. 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.

REFERRING VET

Dr. Calpeno

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.

INVOICE

26572

Liver

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. There is a mild amount of non-organized echogenic debris. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

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.

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. Duodenum wall measured 0.33 cm. Jejunum wall measured 0.27 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

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.

Pancreas

The pancreas is prominent and mottled compared to the surrounding isoechoic mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid. Pancreatic duct measures 0.21 cm.

Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

PRIMARY FINDINGS

- Decreased corticomedullary distinction in both kidneys with pinpoint non-obstructive neproliths and medullary rim sign present – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis. Clinical significance uncertain, can be seen in normal patients and in cases of ethylene glycol toxicity, FIP, chronic interstitial nephritis, and leptospirosis.
- 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.

SECONDARY FINDINGS

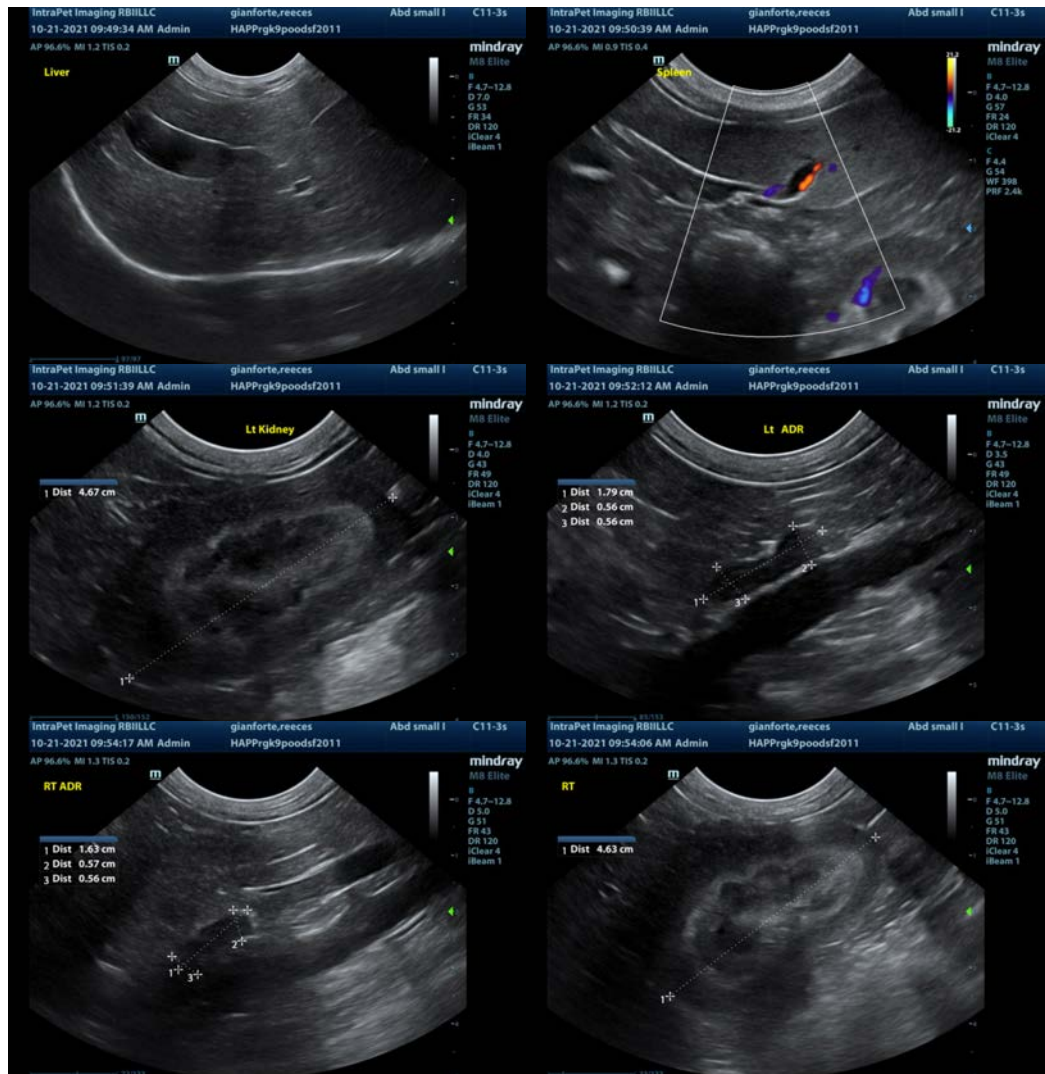
- Prominent, mottled pancreas – The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There were no large focal mass lesions visualized or obvious causes for the elevated globulin reported. Depending on the severity of the hyperglobulinemia, you could consider a protein electrophoresis to try to determine if this is a polyclonal or monoclonal gammopathy, looking for evidence of chronic inflammation, infection, multiple myeloma, tick borne disease such as ehrlichia, etc. can be common causes for an elevated globulin. Depending on the severity of the hypoalbuminemia, this could be compensatory, or could be a primary issue associated with liver disease, renal disease, or gastrointestinal disease. You could consider a

liver function test and urine protein levels to further evaluate for loss from these areas.

The changes reported on today's scan are relatively non-specific and need to be correlated with blood work values, as ultrasonographic findings do not always correlate with the amount of clinical disease present. If there is concern for an underlying neoplastic process, you could consider a fine needle aspirate of the liver. Recommend 3-view thoracic radiographs to evaluate for concurrent intrathoracic disease.





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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