



PATIENT PRESENTING CLINICAL SIGNS

Narang Kim Patient came in today due to loss of appetite for the past 2 days and has a preexisting heart issue.

SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Canine **Urinary System**

BREED The urinary bladder is mildly distended with anechoic urine and some of the still views provided there's the impression of focal wall thickening, with an area measuring 0.67 cm x 1.18 cm. This could also be obliqued and catching some of the prostate. This region is not visualized in the video clips provided. No evidence of calculi observed.

SEX The visualized areas of prostate and surrounding tissue appear normal. Unfortunately, the prostate is not fully visualized likely due to its intrapelvic location. Correlate with rectal exam findings.

AGE The left kidney has a normal shape and size (3.45 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex: medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

WEIGHT The right kidney has a normal shape and size (3.23 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex: medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, 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.

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Dr. Paul Kim

The right adrenal gland is normal in size measuring 0.47 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.

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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.

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Liver

The liver is large in size, and normal in 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. There is a small ill-defined hyperechoic nodule visualized within the parenchyma measuring 0.58 cm.

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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 moderate 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



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adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

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Canine

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 (0.40 cm), and the jejunum measured as normal (0.22 cm.) Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

BREED

Chihuahua

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.

SEX

Male/N

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.

AGE

14 years

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.

WEIGHT

7.2lbs

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PRIMARY FINDINGS

- Questionable focal bladder wall thickening. Recommend a urinalysis and C/S and reevaluation of the urinary bladder distended with urine.
- 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.
- Large heterogenous liver with ill-defined hyperechoic nodule. 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. The nodule visualized has minimal criteria for malignancy recommend continued monitoring.
- Moderate gallbladder debris. The significance of the aggregated gallbladder debris is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting but seems unlikely to be causing a current issue. Recommend continued monitoring.

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The significance of the bladder wall thickening observed is uncertain, as the urinary bladder is not well distended, and this could represent an obliqued view. Possibly superimposing some prostate etc.? Recommend reevaluation of the urinary bladder distended with urine. A urinary catheter could be placed and instilled with sterile saline if you cannot catch the patient with a full bladder. Recommend a urinalysis and C/S. If there is a thickening/mass effect, consider a traumatic catheterization to try and obtain samples for cytology.

The pancreas is visible but does not appear overtly inflamed this could be consistent with mild current inflammation or previous episodes of inflammation. The liver appears borderline large and heterogenous with an ill-defined hyperechoic nodule. Correlate these findings with bloodwork, if liver



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enzyme elevations are present you could consider a liver function test and a fine needle aspirate of the liver. If there are no liver enzyme elevations, then the significance of this is uncertain.

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Canine

An obvious cause for this patients inappetence is not clearly observed. Consider full bloodwork and abdominal and thoracic radiographs.

BREED

Chihuahua

SEX

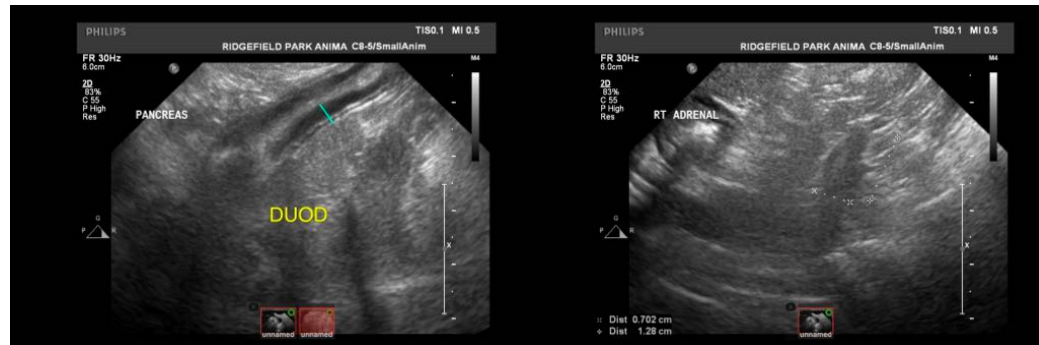
Male/N

AGE

14 years

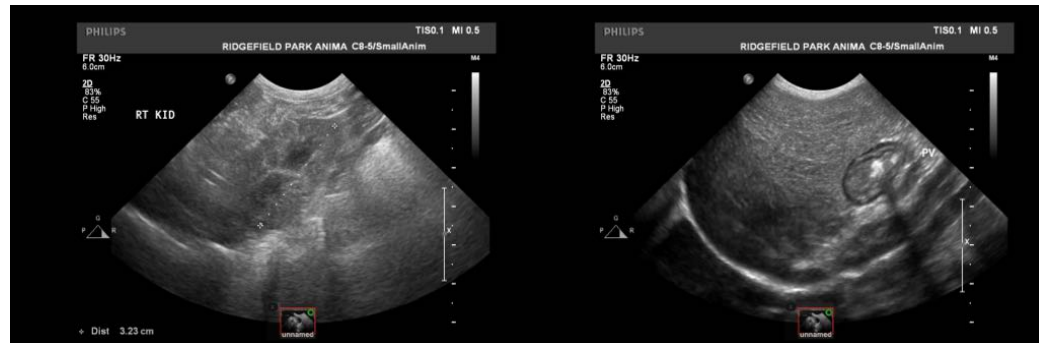
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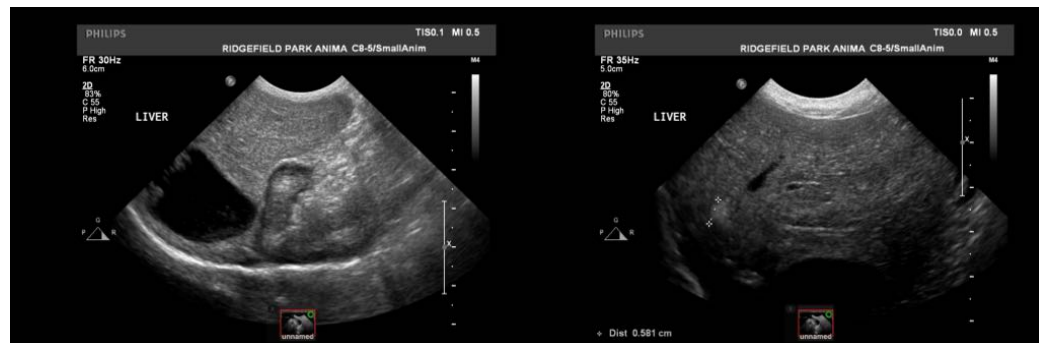
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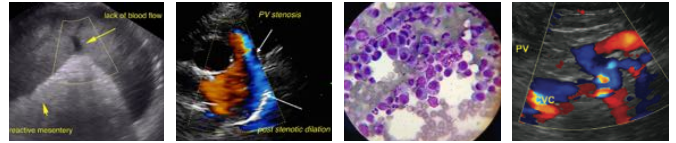
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Male/N

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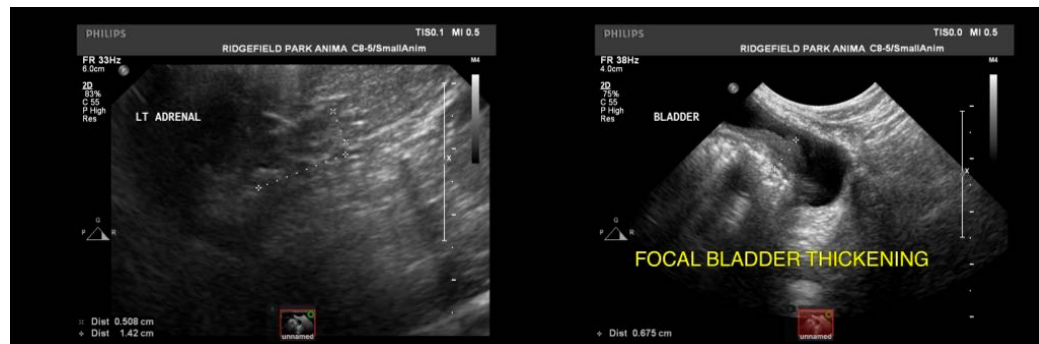
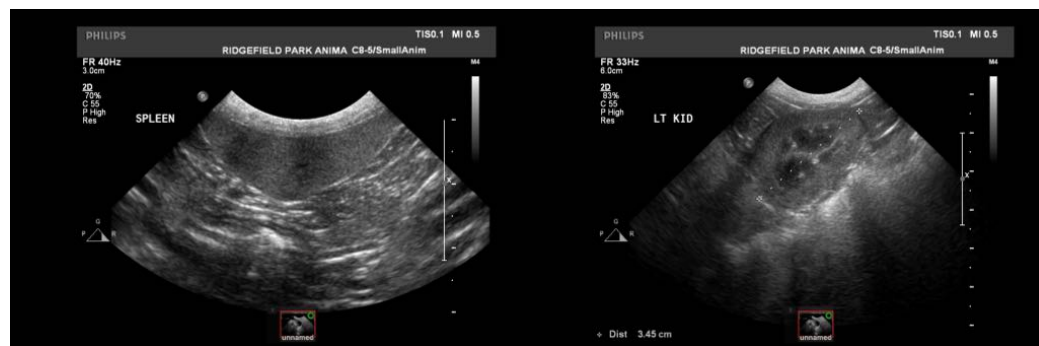
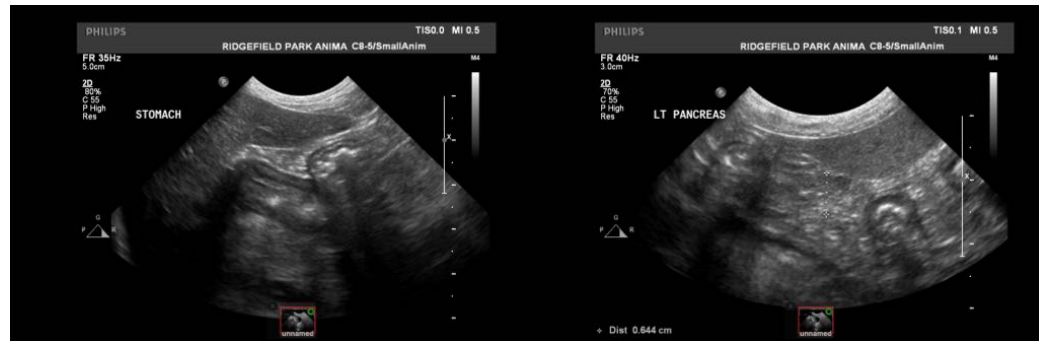
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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