



PATIENT PRESENTING CLINICAL SIGNS

Nodoka Vuaghn History: Vomiting, diarrhea for 5 days. Differential diagnosis: GI FB, Pancreatitis, Primary Immune mediated GI disease PLE, Neoplasia, Infectious Enteritis. No current meds.
PrecPSL 263, PLT 611, Mono 856, PCV/TS 42/5.8

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

BREED

Dachshund

Urinary System

The **urinary bladder** revealed a sessoid polyp that measured 1.12 x 0.67 cm. The ventral bladder polyp appears to be moderately vascular. The polyp appears resectable.

SEX

Spayed female

The **kidneys** revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some age-related loss of curvilinear patterns regarding the capsule and C/M junction. The cortices presented largely uniform texture with some increased echogenicity expected for his age patient. Medullary structure differed distinctly from that of the cortex. Slight pyelectasia was noted in the kidneys. The left kidney measured 4.22 cm.

AGE

14 years

Adrenal Glands

WEIGHT

11.9 lbs

The right **adrenal gland** revealed a hyperechoic nodule at the cranial pole measuring 1.5 x 1.26 cm. The caudal pole measured 0.61 cm and it measured 2.8 cm in length. The expansive right adrenal nodule appeared to be encapsulated; however, in one view early invasion through the phrenic vein into the vena cava appears to be present with a slight polypoid change. The left adrenal gland is normal in size and contour measuring 1.87 x 0.51 cm at the caudal pole and 0.46 cm at the cranial pole.

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

Spleen

IMAGING PERFORMED BY

Jessica Miller, RDMS

The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes was noted.

HOSPITAL NAME

Companion AH
Parsippany

Liver

REFERRING VET

Dr. Wolf

The **liver** images from right and left intercostal as well as subcostal views revealed subjectively normal liver size, contour, and structure. Some age-related parenchymal remodeling was noted but likely not clinically significant at this time. Vascular and biliary tracts were of normal volume and no evidence of congestion was noted. The gallbladder was mildly over distended with suspended and dependent debris, yet not to the level of emerging mucocele, yet sludge appears to be mildly excessive. Minor gallbladder polyps were noted. No adjunctive inflammation was noted.

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Gastrointestinal

The **gastrointestinal tract** revealed diffuse, hyperechoic fogging or overlay throughout the small intestine as well as areas of mucosal striations and speckling. This striation + fogging effect appeared to exclusively affect the mucosal layer with the submucosa, muscularis and serosa left in-tact. Areas of fluid filled bowel was noted. Some bowel stasis was noted. Reactive mesentery was present associated with the serosa indicative of active inflammation. This is most consistent with protein losing enteropathy/lymphangectasia. Full thickness biopsies or endoscopy guided biopsies would be ideal to confirm. No obstructive disease or obvious suspicion of neoplasia.

Pancreas

The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Some parenchymal remodeling, however, with mild deviation from curvilinear normalcy was observed. Pancreatic duct and capsular irregularities were present consistent with age related changes. If pain upon imaging (+ Murphy sign) was present or if the patient is focally painful in subxiphoid palpation then low-grade smoldering chronic pancreatitis should be suspected.

Free Abdomen

A slight amount of free fluid was noted in the abdomen.

ULTRASONOGRAPHIC FINDINGS

Bladder polyp. Strong concern for transitional cell carcinoma given its vascularity even though very small.

Right adrenal tumor with early invasion. Differentials include carcinoma, pheochromocytoma, adenoma with attached thrombus occupying the phrenic vein and slightly into the vena cava.

Lymphangectasia enteritis pattern with slight free fluid. Differentials include lymphangectasia, enteritis with adhesions and reactive mesentery.

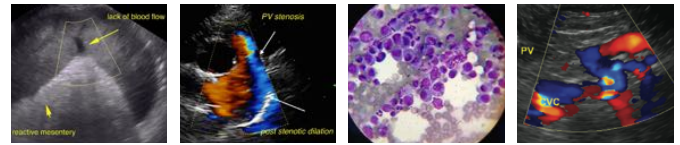
Age related pancreatic changes.

Minor excessive gallbladder debris.

Reactive mesentery.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

I recommend full adrenal work-up with blood pressure measurements +/- urine catecholamine and work-up for adrenal dependent Cushing's. right adrenalectomy. If the albumin levels are less than 1.5 then the free fluid would be justified by poor oncotic pressure. However, given that this was not reported to be the case free fluid is likely secondary to inflammation. I cannot completely rule out an underlying neoplastic event such as lymphoma, yet no neoplastic criteria is present. Surgical intervention with right adrenalectomy, bladder ventral polyp removal and inspection of GI biopsies can all be justified. If any cortisone treatment has been in this patient's history I would be concerned for a suppressed neoplasia.



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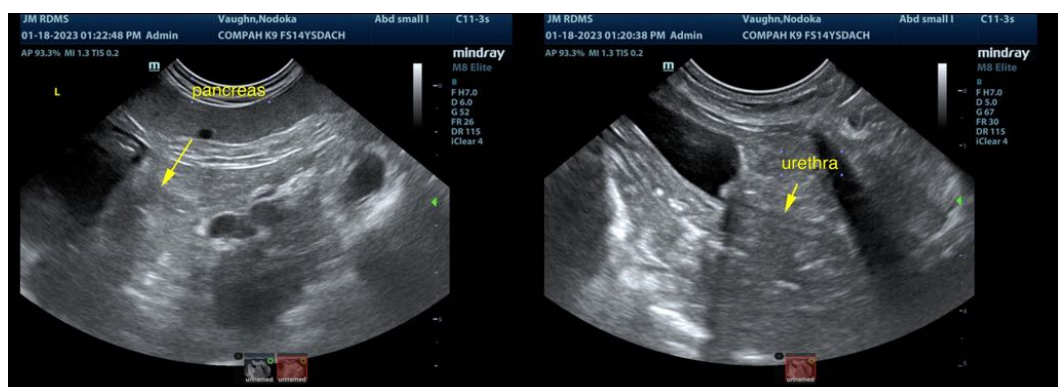
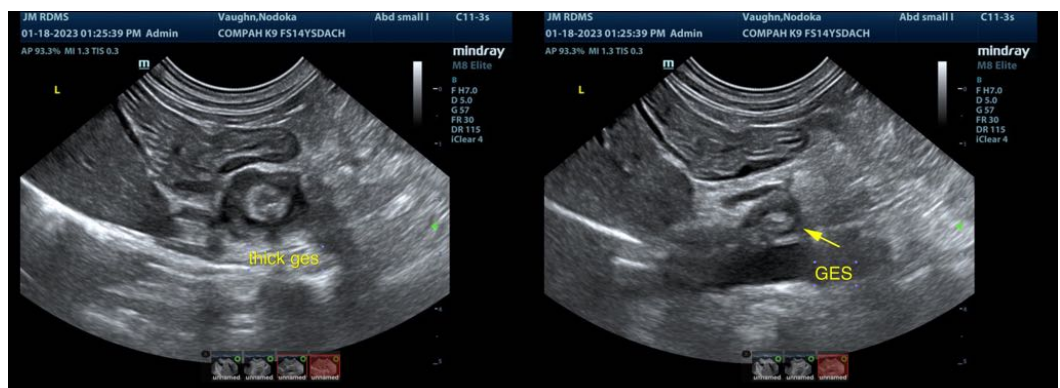
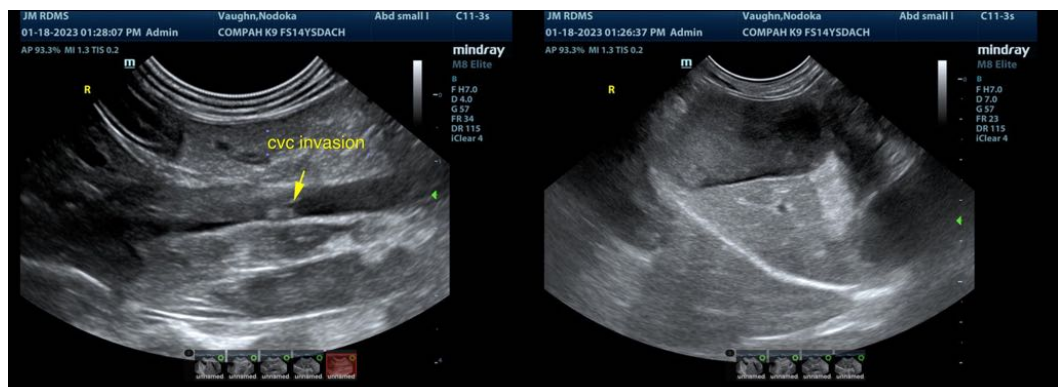
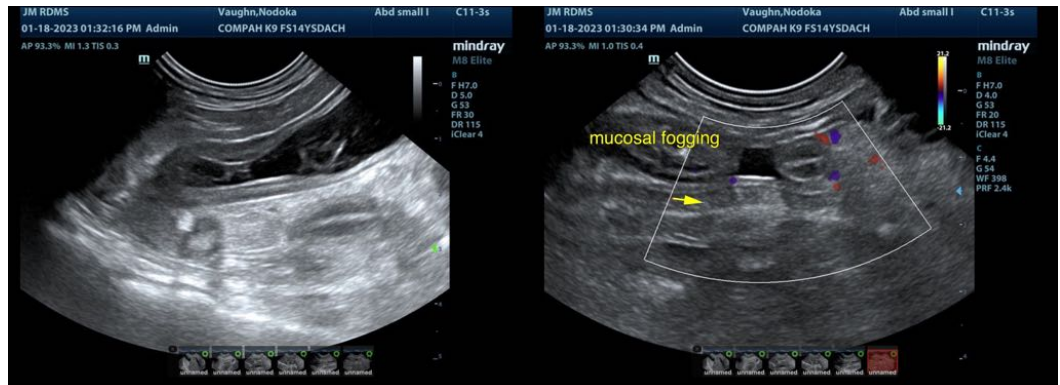
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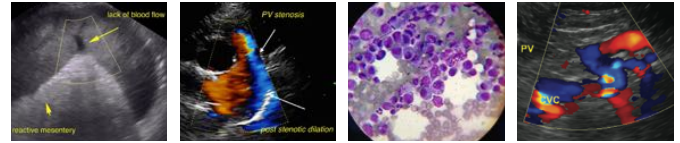
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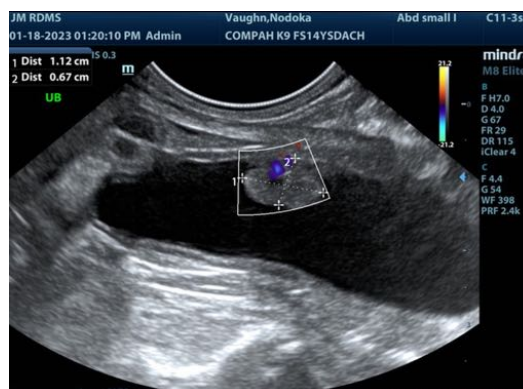
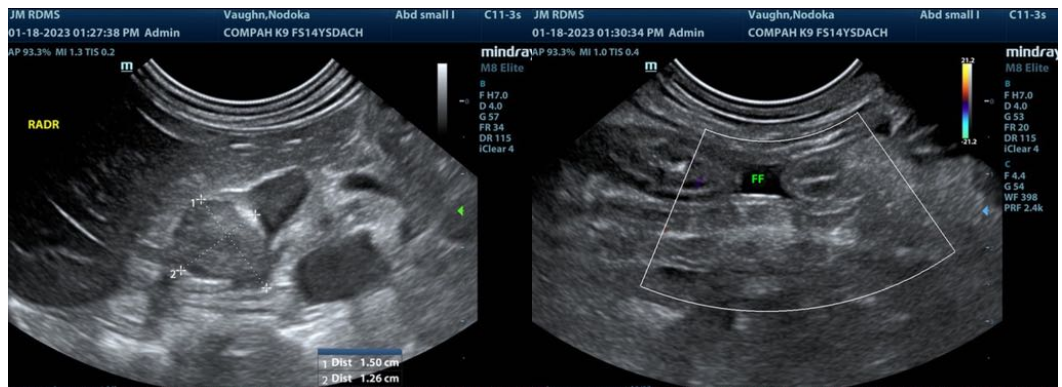
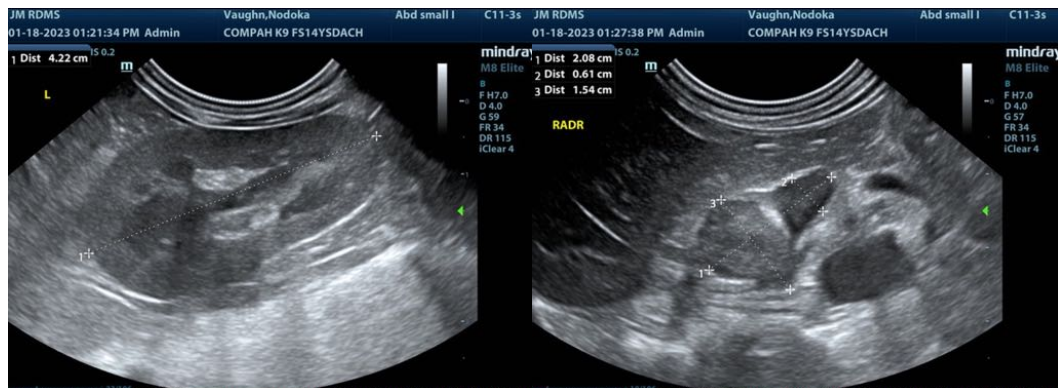
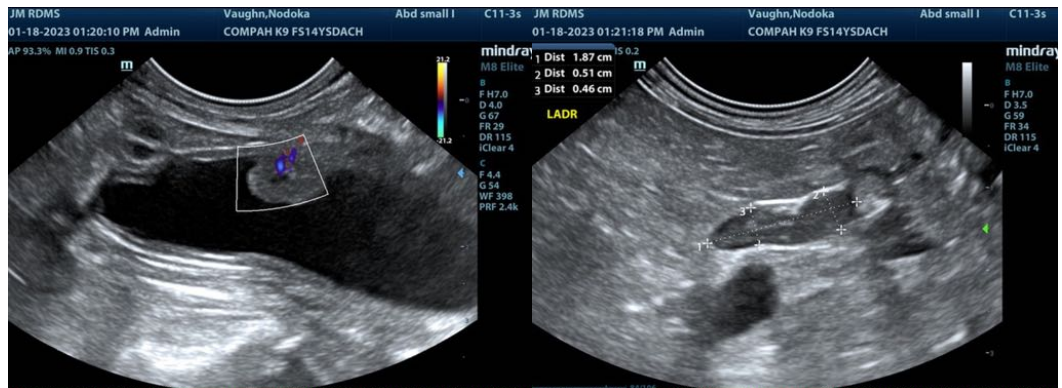
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

SPECIES

Canine

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.

Eric Lindquist, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com
info@SonoPath.com

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