



PATIENT PRESENTING CLINICAL SIGNS

PATIENT Alfie Cadle
SPECIES Canine
BREED Labrador Mix
SEX Neutered male
AGE 3 months
WEIGHT 15 lbs

PRESENTING CLINICAL SIGNS
 History: Puppy adopted 2 weeks ago from SPCA. Patient presented with vomiting and then progressed to head pressing 24 hrs later.
 Abnormal PE/Chem/CBC/UA Results: PE: Staring and head pressing CHEM: ALT 500, Creat 0.2, Amyl 296, Na 158, Cl 121 CBC: HCT 33%, WBC 22%, Neu 17.06, Mono 1.69 U/A: USG 1.030, pH 7, Protein trace, Bld 25 ery/uL, urine has > 50/hpf ammonium biurate crystals.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder** presented a large amount of debris and a trace amount of sand.

The **kidneys** were both swollen. The left kidney measured 6.2 cm. The right kidney measured 6.15 cm.

Adrenal Glands

The left adrenal gland was subjectively subnormal in size and measured 0.2 cm. The right adrenal gland was normal in size and measured 0.6 cm in width.

Spleen

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.

Liver

The **liver** was subnormal in size with mildly increased portal markings. The vena cava measured 1.16 cm. Hepatic vein inflow was normal into the vena cava; however, subjectively the hepatic veins appeared to be subnormal in volume. A tortuous, irregular vessel measuring 0.6 cm was noted and appeared to be entering into the vena cava in the extrahepatic space. This is strongly suggestive for extrahepatic portosystemic shunting. However, the exact type of shunt whether gastrocaval or splenocaval shunt cannot be completely defined. I suspect splenomegaly. The gallbladder was unremarkable.

Gastrointestinal

Examination of the **gastrointestinal tract** revealed a stomach and intestine free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. Small and large intestine demonstrated normal luminal chyme and stool consistency respectively. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Griffin

HOSPITAL NAME

Northside VC

REFERRING VET

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PATIENT

Pancreas

Alfie Cadle

The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Pancreatic duct and capsular contour were acceptably normal and parenchyma respected normal curvilinear patterns. No overt evidence of active inflammatory or neoplastic disease was noted.

SPECIES

Canine

ULTRASONOGRAPHIC FINDINGS

BREED

Swollen kidneys.

Labrador Mix

Bladder debris and sand.

SEX

Microhepatica and hypovolemia. Tortuous extrahepatic shunt to be further defined by CT. I suspect splenocaval.

Neutered male

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

AGE

CT evaluation for surgical planning is indicated. Bile acid profile is warranted. Surgical consult is warranted. This is presuming that the bile acids are elevated then the following protocol can be initiated.

3 months

WEIGHT

Royal Canin Hepatic Support diet or Hills L/D, Metronidazole (7.5 mg/kg PO bid) over the next 14 days, **Lactulose (Oral: 3.1-3.7 g/5 ml lactulose in a syrup base)** long term to target 2-3 soft stools/day, with a **high-quality protein supplement** of minor amount of **yogurt or cheddar cheese**. Monitor bile acids, with attention paid to dropping albumin, BUN or cholesterol. **SAME** and nutraceuticals as needed. **Ursodiol (10-15 mg/kg p.o. q24h)** can be considered as hepatoprotectant and to enhance bile flow. **Zinc** serum level keep between 200–500 ug/dl. If deficient then Tx zinc acetate 1-3 mg/kg/day. Gastrointestinal protectants are recommended if the patient is anorexic.

15 lbs

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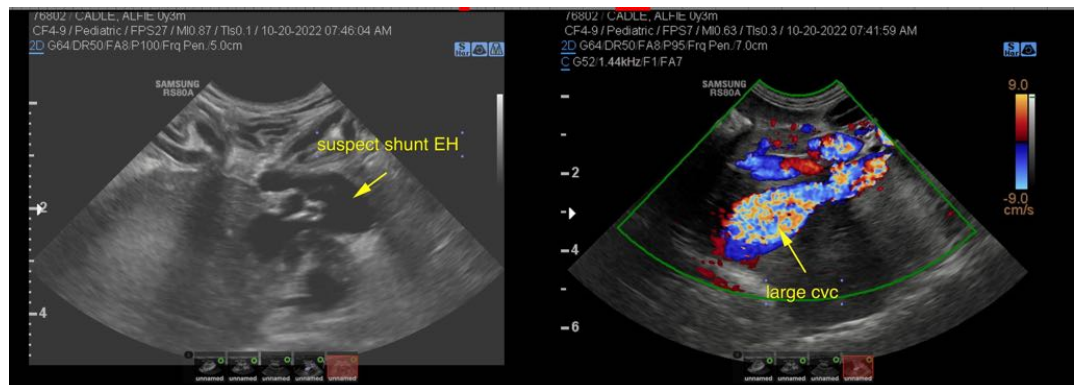
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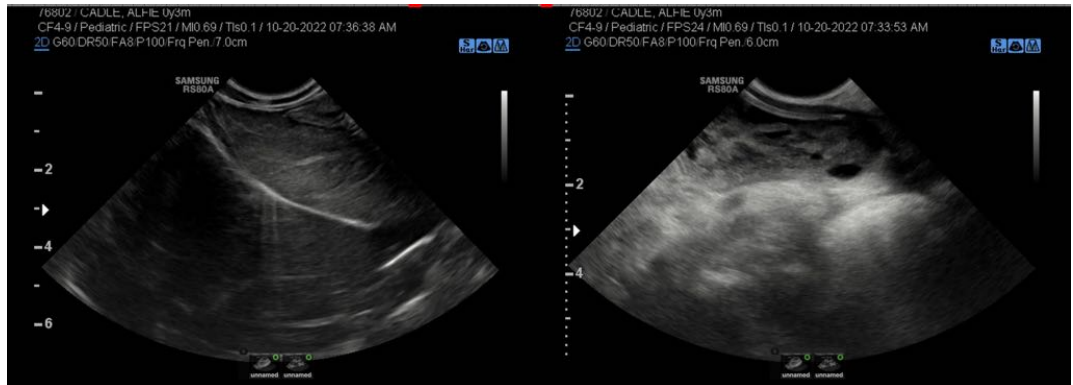
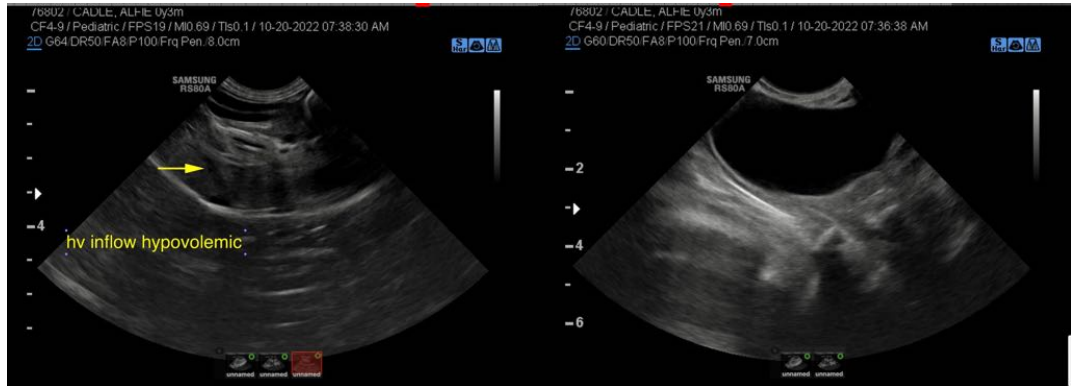
Neutered male

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WEIGHT

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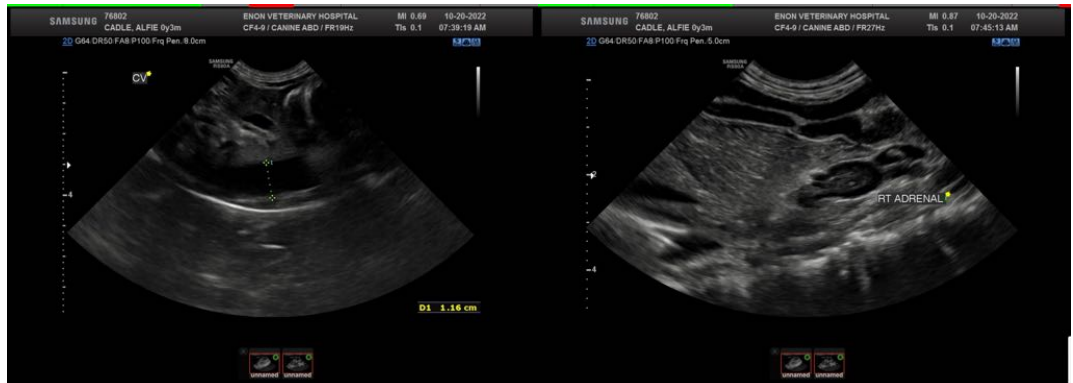
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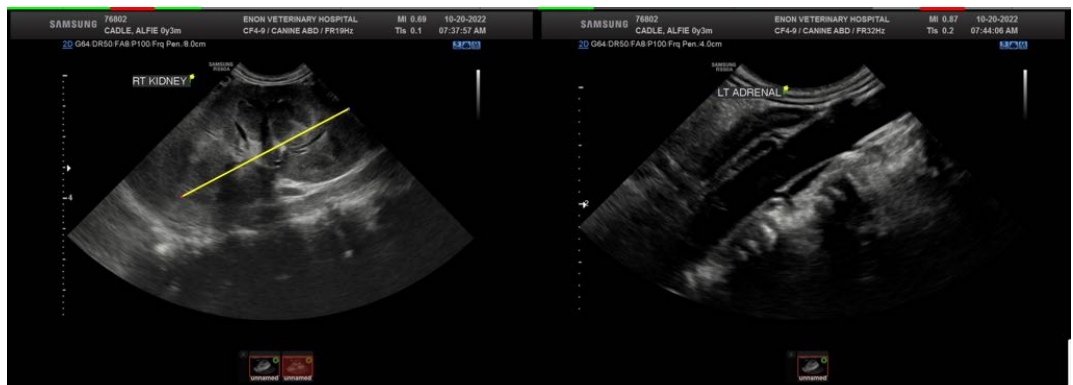
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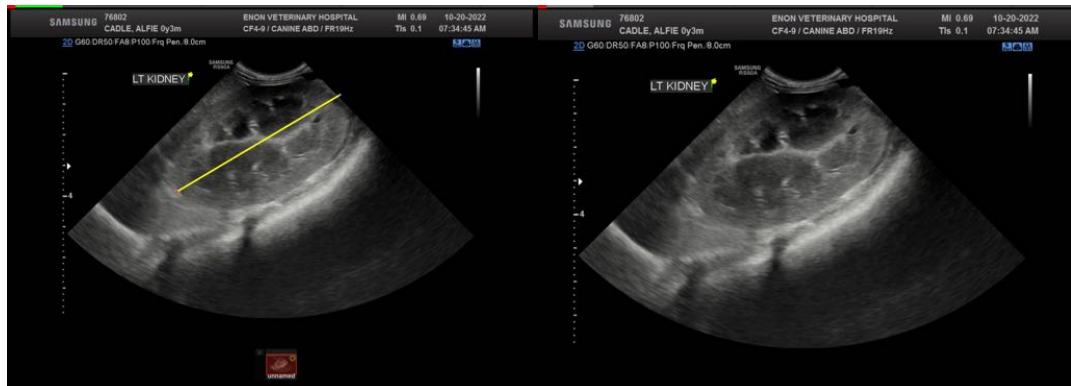
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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