

PATIENT PRESENTING CLINICAL SIGNS

Tia Scotland

SPECIES

Canine

BREED

Husky

SEX

Intact female

AGE

3 months

WEIGHT

7.5 kg

MM/CRT: Pink, moist, CRT < 2 sec Hydration: Euhydrated Attitude: BAR, disoriented Weight: 7.5 kg
Pain score: 0/4 BCS: 5/9 Eyes: No ocular discharge, eyes clear OU. PLR delayed OU. Non-visual OU
Ears: Clean AU Oral: No dental tartar/gingivitis. No oral lesions noted Integumentary: Clean haircoat.
No external wounds or ectoparasites noted Musculoskeletal: Ambulatory/weight bearing all limbs. No
joint swelling/effusion, no pain on palpation of extremities Circulatory: No murmurs/arrhythmias,
pulses strong/synchronous Respiratory: Lungs clear bilaterally Digestive: Abdomen soft/nonpainful, no
palpable masses or abnormalities Rectal Exam: Soft brown stool. No blood or mucous Genitourinary:
Normal externally Neural System: Disoriented, non-visual, ataxic, head pressing Lymph Nodes: Normal
peripherally
Abnormal PE/Chem/CBC/UA Results: PCV/TS: 38%/ 5.4 - CBC: decreased HCT (36.2) - CHEM17:
elevated ALT (378), elevated GGT (22), decreased AMYL (210), elevated Na (160), elevated Cl (124) -
Ammonium: elevated NH3 (228) - UA: USG 1.032, WBC >50/HPF, RBC 7/HPF, Bacteria Rods - present,
Bacteria cocci - suspect presence Rads: Findings: Thorax: The cardiac silhouette is normal in size, shape,
and margination. The pulmonary vasculature is normal in size and tapers peripherally. The pleural space
and mediastinal structures are normal. The pulmonary parenchyma is normal. No regional osseous
abnormalities are identified. Abdomen: Serosal margin detail is normal. The liver, spleen, kidneys, and
urinary bladder are normal. The stomach contains a moderate to marked volume of heterogeneous
ingesta and stippled mineral noted in the region of the pylorus. The small intestines and colon are
normal. No regional osseous abnormalities are identified. The remainder of the study is unremarkable. -
Conclusions 1. Normal thorax. 2. The material within the gastric lumen may represent foreign material if
the patient has been fasted. This may also represent normal ingesta if delayed gastric emptying is
present, or the patient has not been fasted. Repeat radiographs following a controlled fast for 12-18
hours can be performed for further evaluation of this finding. 3. Otherwise normal abdomen

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Medicine)

HOSPITAL NAME

Veterinary Specialty
Care Mount Pleasant-

REFERRING VET

Dr. Huggins

INVOICE

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ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. The bladder revealed dependent and suspended debris. A trace amount of sand was noted. No evidence of inflammatory or neoplastic changes was noted. Ureteral papillae were normal.

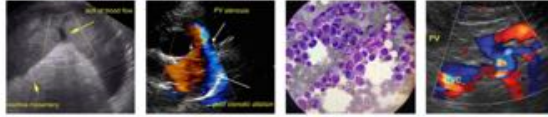
The **kidneys** were swollen with slight pinpoint mineralization. There was some loss of corticomedullary. The right kidney revealed pyelectasia. Both kidneys were hypervascular as were the renal arteries and veins. The right kidney measured 7.19 cm. The left kidney measured 6.8 cm.

Adrenal Glands

Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The right adrenal gland measured 2.47 x 0.46 cm at the caudal pole and 0.83 cm at the cranial pole. The left adrenal gland measured 2.05 x 0.35 cm at the caudal pole and 0.37 cm at the cranial pole.

Liver

The **liver** was significantly subnormal in size. The portal vein at the portal hilus after the gastroduodenal vein measured 0.63 cm. The vena cava in the same position was enlarged and measured 1.62 cm, aorta



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0.66 cm. The portal vein to aortic ratio was 1:1; however, the portal vein to vena cava ratio was significantly subnormal, which would suggest over circulation from suspected right divisional intrahepatic shunting. However, the shunting appears to be occurring just at the portal hilus. Therefore, definitive extrahepatic versus intrahepatic shunting could not be defined as there is a subtle difference between splenocaval shunt and a right divisional intrahepatic shunt with respect to the portal hilus. CT with contrast would be necessary for further definition. The shunt appears to be significantly large with large shunt fraction measuring 1.0 cm in width. The gallbladder and common bile duct were unremarkable. The diaphragm was uniform. Intrahepatic vascularity was subnormal.

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.

Gastrointestinal

A minor amount of non-shadowing, non-obstructive ingesta was noted in the stomach. Transit of chyme into the small intestine was normal. Curvilinear patterns were maintained throughout the GI tract. No evidence of pathology. 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.

Pancreas

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.

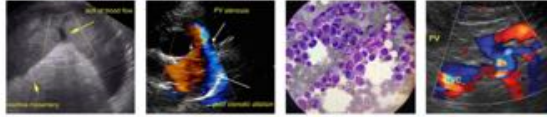
ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Significant microhepatica. Portal vein to vena cava ratio was subnormal.
- Swollen kidneys.
- Bladder debris.
- Hypervascular renal presentation.

Secondary Findings

Post prandial gastric content.



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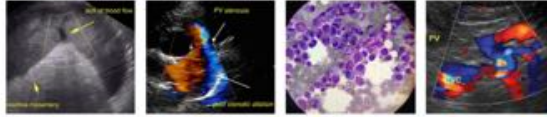
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

I recommend stabilization of the patient with following protocol and further definition with CT with contrast for potential vascular plug or other surgical intervention based on CT findings.

Hepatic Support for Bile Acid Elevation +/- Hepatic Encephalopathy

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.





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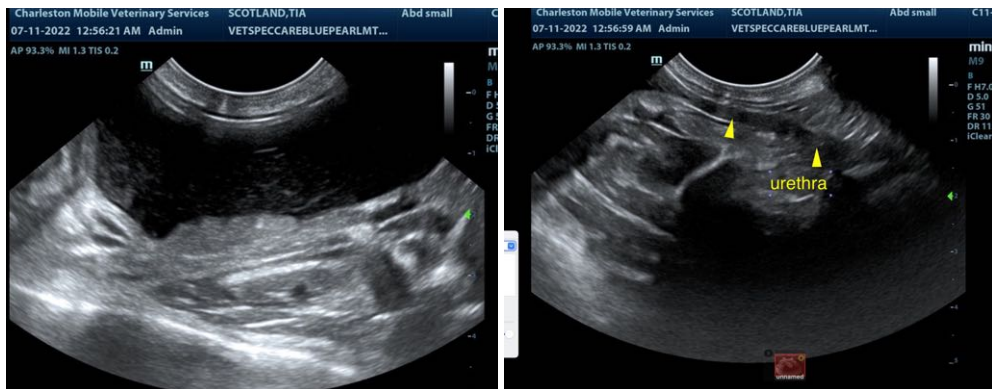
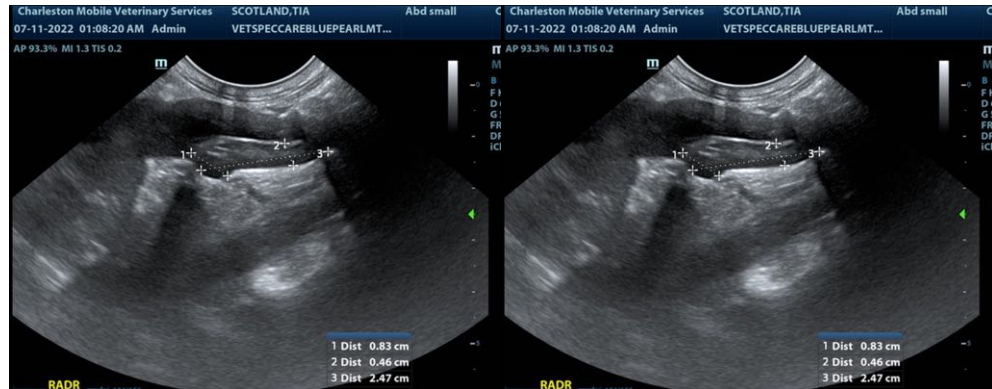
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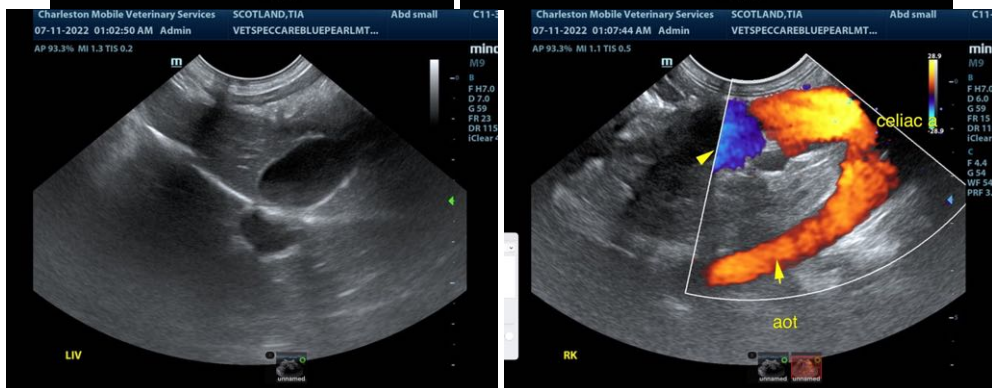
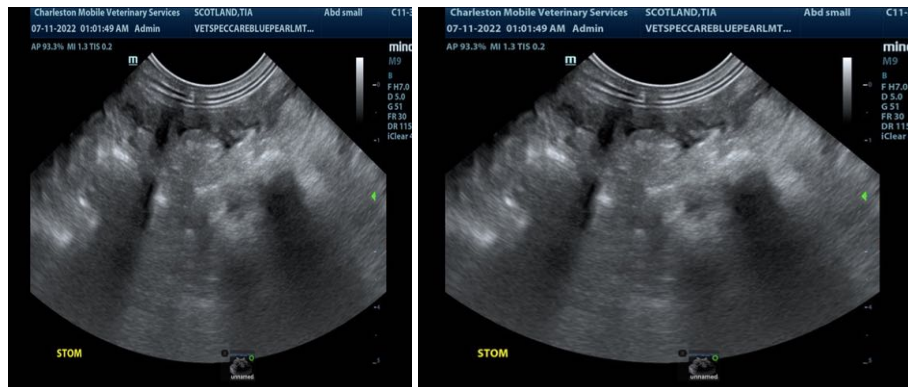
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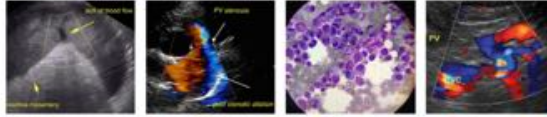
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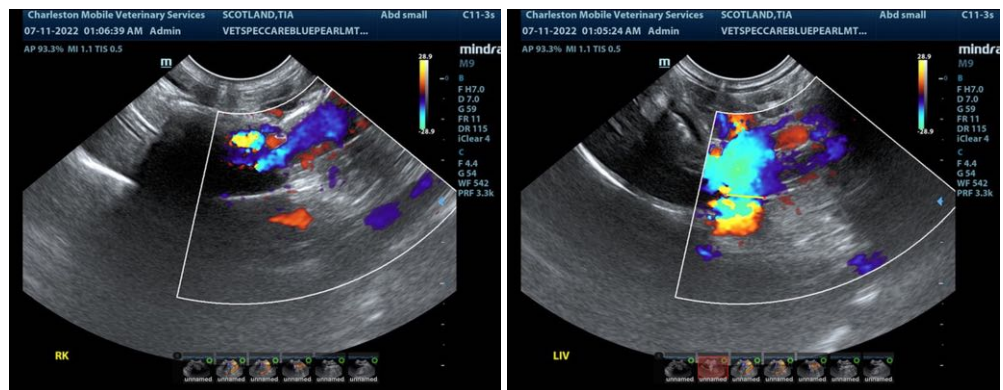
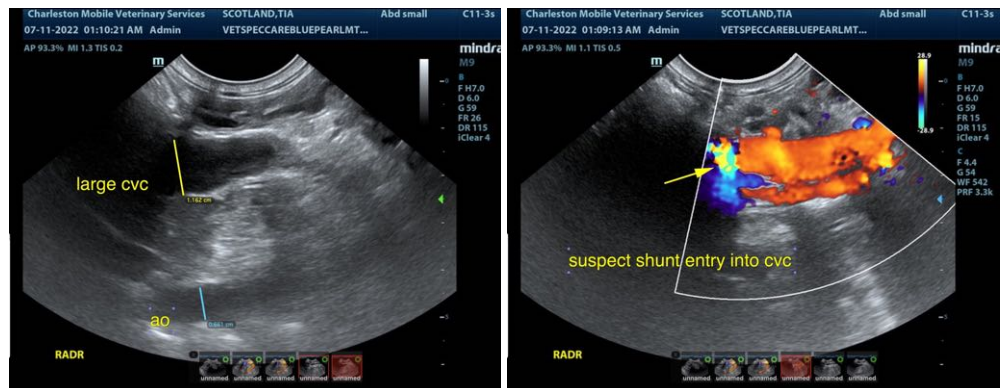
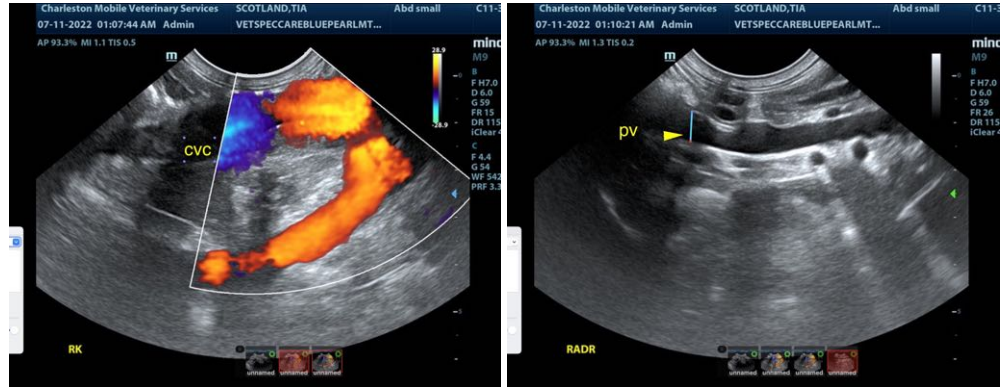
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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