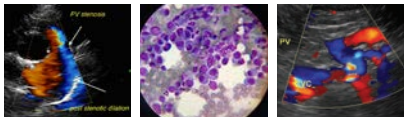
IMAGING PERFORMED BY

IntraPet.com



SonoPath

Clinical Sonography & Telecytology

EDUCATIONAL TELECONSULTATION SERVICES™

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DATE

7/27/22

PATIENT

Jack Walters

SPECIES

Canine

BREED

Miniature Bernedoodle

SEX

Intact Male

AGE

2/22/22

WEIGHT

19.7 Pounds

INTERPRETED BY

Eric Lindquist, DMV DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Andi Parkinson RDMS

HOSPITAL NAME

Padonia Vet Hospital

REFERRING VET

Dr. Anis

INVOICE

39883

PRESENTING CLINICAL SIGNS

Patient has not been acting right, refused to eat yesterday and today. Very lethargic/depressed. Drooling excessively.

Current Medications: Convenia injection given 7/26.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder** revealed dependent sand measuring approximately 1.0 cm. Suspended debris also noted.

The **kidneys** were swollen. The right kidney measured 6.5 cm with corticomedullary calculi. The left kidney measured 6.3 cm with corticomedullary calculi.

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 2.06 cm x 0.48 cm at the cranial pole and 0.41 cm at the caudal pole. The left adrenal gland measured 2.07 cm x 0.34 cm at the cranial pole and 0.41 cm at the caudal pole.

Spleen

The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The spleen was folded upon itself caudally. 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 were noted.

Liver

The **liver** images submitted revealed subjectively normal liver size, contour, and structure. Parenchymal echogenicity was naturally coarse and hypoechoic to the spleen. Vascular and biliary tracts were of normal volume with no evidence of congestion. The gallbladder presented acceptably thin walls with primarily anechoic content. The cystic and common bile ducts were normal. No pathological hepatic lymphadenopathy was evident. No overt structural evidence of inflammatory, infiltrative or regenerative pathology was evident.

Portal vein to vena cava ratio was 1:1, measuring 6.0 mm each. No evidence of extrahepatic shunting present. However, a large, abnormal, irregular intrahepatic shunt was noted and appears to be most consistent with a central divisional shunt, measuring approximately 0.80 cm in width. It appears to be at the central branch of the portal vein to the vena cava and measures approximately 2.0 cm in length.

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.

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

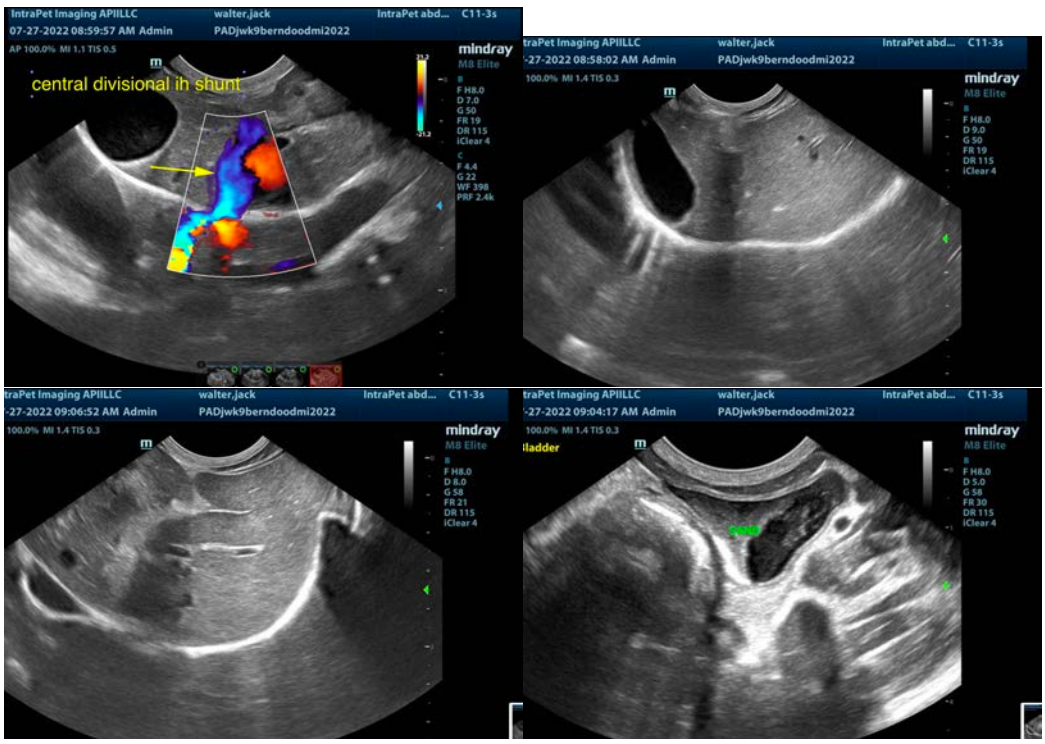
- Intrahepatic shunt – appears to be deriving from the central branch of the portal vein.

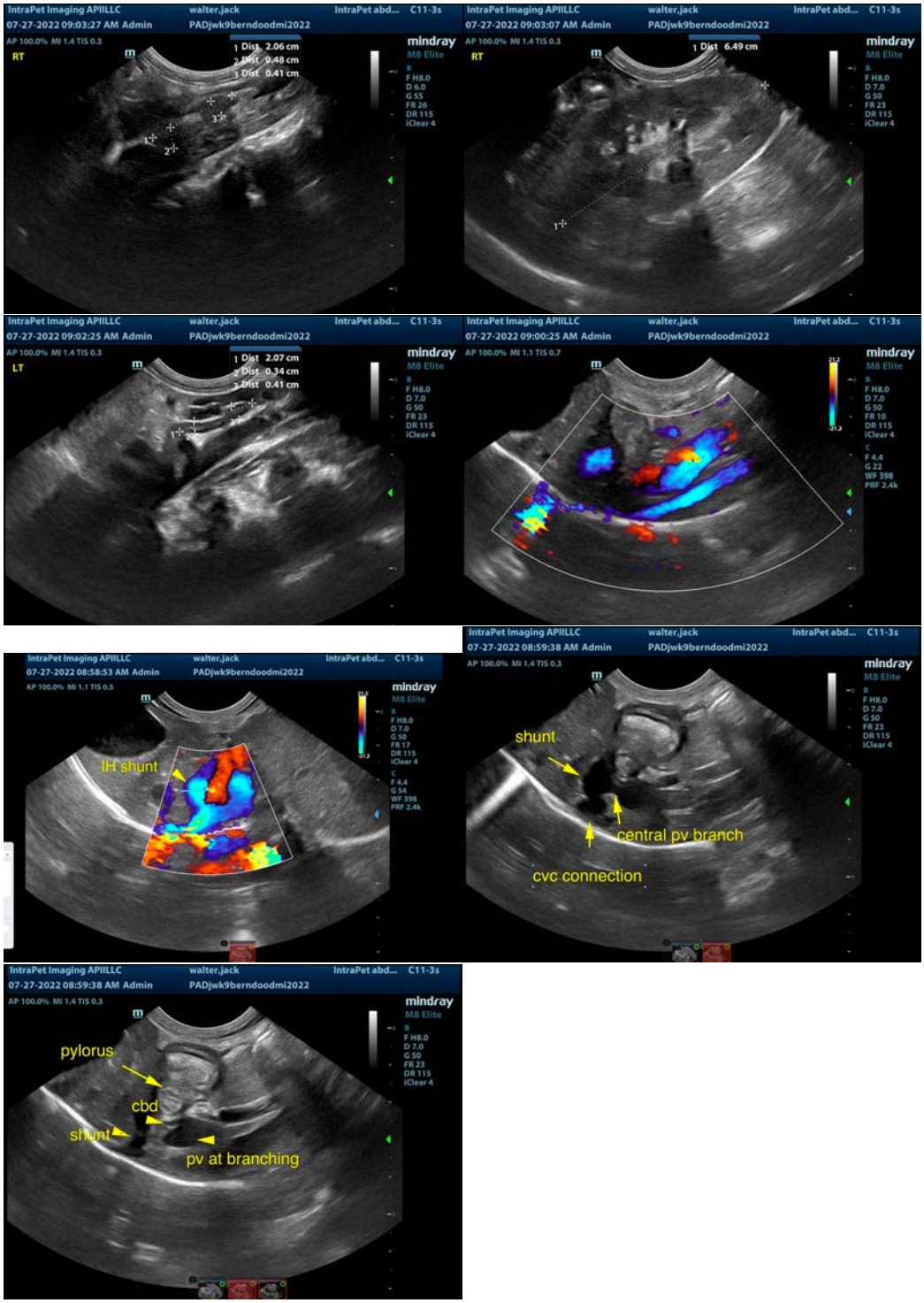
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Referral for vascular occlusion/interventional radiology recommended. In the meantime, medical management such as the following should be considered. GI protectant protocol warranted as well. Cystotomy and bladder lavage indicated at surgery if possible, yet may be medically manageable.

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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pylorus
cbd
shunt
pv at branching

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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