

**PATIENT**

Harvey Mah

**PRESENTING CLINICAL SIGNS**

History: Non clinical moderate elevation of Bile acids on pre dental assessment Pre prandial 66  
Post prandial 99 normal range 14-29

**SPECIES**

Canine

Abnormal PE/Chem/CBC/UA Results: Mod elevation bile acids

**BREED**

Maltese Mix

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

**SEX**

MN

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio and normal corticomedullary definition were maintained. The echogenicity of the cortex was similar to or slightly less than normal liver parenchyma while the medulla echogenicity was hypoechoic to the cortex with no evidence of pelvic dilation. Pinpoint medullary mineral was present. No evidence of renomegaly or renolithiasis. The left kidney measured 3.4 cm in length. The right kidney measured 3.7 cm in length.

**AGE**

8

The area of the aortic trifurcation was free of pathology.

**WEIGHT**

4.2kg

The residual prostate is free of pathology measuring 0.60 cm in diameter.

**Adrenal Glands**

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.33 cm width at the caudal pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.29 cm width at the caudal pole.

**INTERPRETED BY**

R. McKenzie Daniel,  
DVM, DABVP  
(Canine and Feline)

**Spleen**

The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted.

**IMAGING PERFORMED BY**

Dr. Belan

**Liver**

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. Subjective normal laminar flow noted in the visualized cranial abdominal caudal vena cava at the level of the liver and portal vein. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content with mild debris. The cystic and common bile ducts were normal.

**HOSPITAL NAME**

Beddington Animal  
Clinic

**REFERRING VET**

Dr. Bahadur

**INVOICE**

11126ag

**Gastrointestinal**

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction or foreign material.

**DATE**

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The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material.



**PATIENT**

Normal visible colon wall layers were present with apparent formed feces in lumen.

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**Pancreas**

**SPECIES**

The parenchyma of the left limb, body and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease was evident.

Canine

**Free Abdomen**

**BREED**

No overt lymphadenopathy or peritoneal effusion was present.

Maltese Mix

**ULTRASONOGRAPHIC FINDINGS**

**SEX**

- Overtly normal liver exhibiting normal hepatic volume
- Mild gallbladder debris-likely incidental (non-mucocele)
- Bilateral pinpoint medullary mineral

**MN**

**AGE**

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

8

Obvious evidence of an intrahepatic or extrahepatic shunt was not definitively visualized and may be considered a less likely differential diagnosis given the normal hepatic size and vascular volume. Primary hepatic parenchymal disease with potential for portal hyperplasia is considered most probable. FNA of the liver could be considered for screening cytology if previous or future increased hepatic enzymes. Core surgical biopsy of the liver is likely necessary for further definition as to whether portal hyperplasia or microvascular dysplasia is present. If strong clinical suspicion for nonobvious or small portosystemic shunt, gold standard CT with contrast is likely ideal.

**WEIGHT**

4.2kg

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DVM, DABVP  
(Canine and Feline)

Anesthetic risk may be considered somewhat elevated given the postprandial bile acid value even with normal BUN, GLU, ALB and CHOL levels. Consultation with anesthesiologist is suggested prior to surgical consideration.

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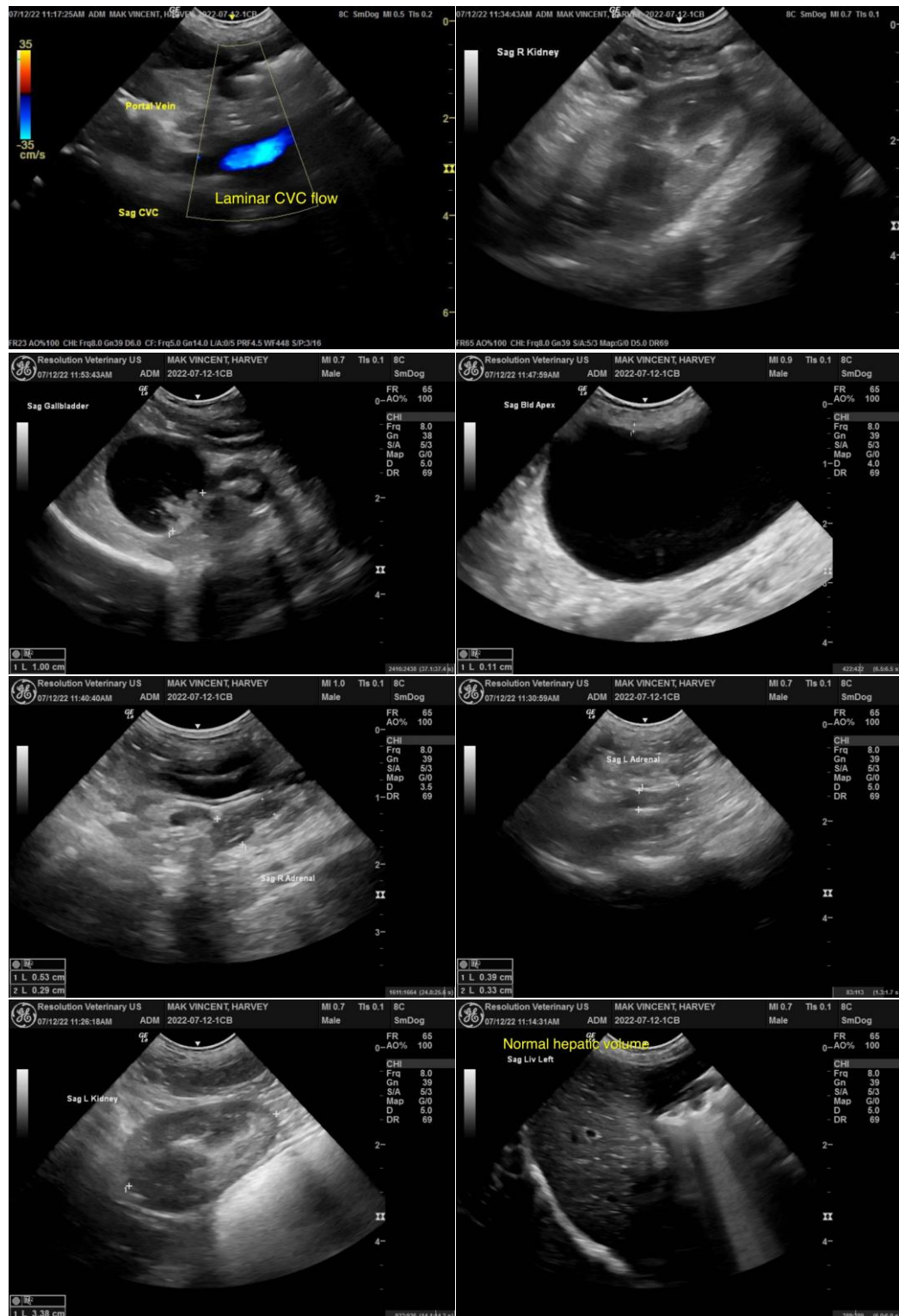
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.



**PATIENT**

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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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)

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info@SonoPath.com

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Maltese Mix

**SEX**

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**AGE**

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