

**DATE PRESENTING CLINICAL SIGNS**

2/7/23

Almost 3 year history of chronic regurgitation, weight loss, inappetence (and O reports vomiting as well), normal blood chemistries at the time this began (3/2020). Normal bile acids, on barium swallow an abnormal outpouching was seen cranial to the diaphragm and a presumptive diagnosis of a sliding hiatal hernia was achieved. Referral has been declined from then until present. P managed ok on omeprazole and metoclopramide but chronic weight loss very apparent. Has lost about 8 lbs since peak weight of 23.2 in 1/2021. Current concern is inappetence, weight loss, muscle wasting, elevated liver values, hypoproteinemia, and mild anemia

PATIENT

Kiki Rohner

SPECIES

Canine

BREED

Beagle

SEX

Spayed Female

AGE

11/1/16

WEIGHT

14.9

INTERPRETED BY

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HOSPITAL NAME

Pleasantville AH

REFERRING VET

Dr. Gounaris

INVOICE

44795

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder is moderately distended with mild primarily suspended echogenic debris present. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or calculi. Echogenic debris of this type can be associated with small crystals, cellular debris and proteinaceous debris.

The left kidney has a normal shape and size (56.2 cm) with a non-obstructive nephrolith visualized measuring 0.58 cm. Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (5.59 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.51 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

The right adrenal gland is normal in size measuring 0.61 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

Spleen

The spleen is borderline small and irregular. Echotexture is homogenous. The blood flow through the hilus and splenic parenchyma appears normal. There is the suspicion of a mixed echogenic nodule associated with the spleen measuring 2.08 cm x 2.08 cm.

Liver

The liver is large and irregular. The parenchyma is hyperechoic and homogenous in echotexture. The visible portions of the vasculature and biliary tract appear normal. A significant portion of the hepatic parenchyma appears occupied by a large, hyperechoic, multilobulated mass effect, which primarily occupies the left side of the liver but extends cranially on the right side. This mass lesion is >12.02 cm x 10.5 cm and is most consistent with a primary hepatic mass.

The gallbladder is difficult to visualize but appears deviated dorsally in some images and appears within normal limits.

Gastrointestinal

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

The visualized areas of duodenum, jejunum and ileum have a uniform diameter with minimal fluid distension. Wall thickness is moderately increased. Bowel loops follow a typical curvilinear path. Some areas have reduced detail of wall layering. Jejunum wall measures 0.26 cm. Duodenum wall measures 0.35 cm. There is mucosal speckling evident. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

Pancreas

Normal pancreas is not visualized on today's exam. There is some abnormal mineralized, very vascular tissue visualized caudal and ventral to the stomach in the region of the body and right limb of the pancreas, which is concerning for a possible pancreatic mass or further extension of the hepatic mass lesion, an area of which measures 3.23 cm x 6.14 cm.

Free Abdomen

There is a moderate amount of mildly echogenic free abdominal fluid. There is no evidence of a diffuse lymphadenopathy, but there is a hyperechoic nodule/lymph node visualized between the caudal vena cava and aorta on the right side, measuring approximately 3.36 cm x 2.52 cm. The omentum is diffusely hyperechoic.

Other

There is the generalized impression of distended congested vasculature in the abdomen, possibly consistent with acquired shunting or portal hypertension.

There is a moderate amount of pleural effusion visualized with mildly echogenic fluid surrounding the heart and in the caudal thorax. Recommend 3-view thoracic radiographs and consider a thoracocentesis for both therapeutic and diagnostic purposes.

The right auricle and pericardium were visualized and were unremarkable. No obvious pathology is visualized. If cardiac function evaluation is desired a full echocardiogram is warranted.

PRIMARY FINDINGS

- Mixed echogenic nodule visualized in the spleen – There is a non-cavitated, mixed echogenic splenic nodule visualized. Differentials include lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis.
- Mineralized, irregular, vascular mass effect visualized caudal and ventral to the stomach in the region of the pancreas – Findings are concerning for a possible pancreatic mass lesion (carcinoma, lymphoma, metastatic lesion, etc.), although extension of the hepatic mass lesion cannot be excluded as a possibility.
- Large, hyperechoic liver with a large, hyperechoic “massive” mass lesion occupying approximately 75% of the hepatic tissue – Findings are most consistent with a primary hepatic mass (adenoma, carcinoma, etc.).
- Mildly thickened small intestine with mucosal speckling – Bright mucosal speckling has been postulated to represent dilated lacteals or focal accumulations of mucus, cellular debris, etc. in the mucosal crypts.
- Hypoechoic nodule visualized between the aorta and the caudal vena cava – This could represent a metastatic lesion, large lymph node, etc.
- Bi-cavitary effusion – There is mildly echogenic fluid visualized within the pleural and peritoneal cavity – Recommend sampling, fluid analysis, and cytology.

SECONDARY FINDINGS

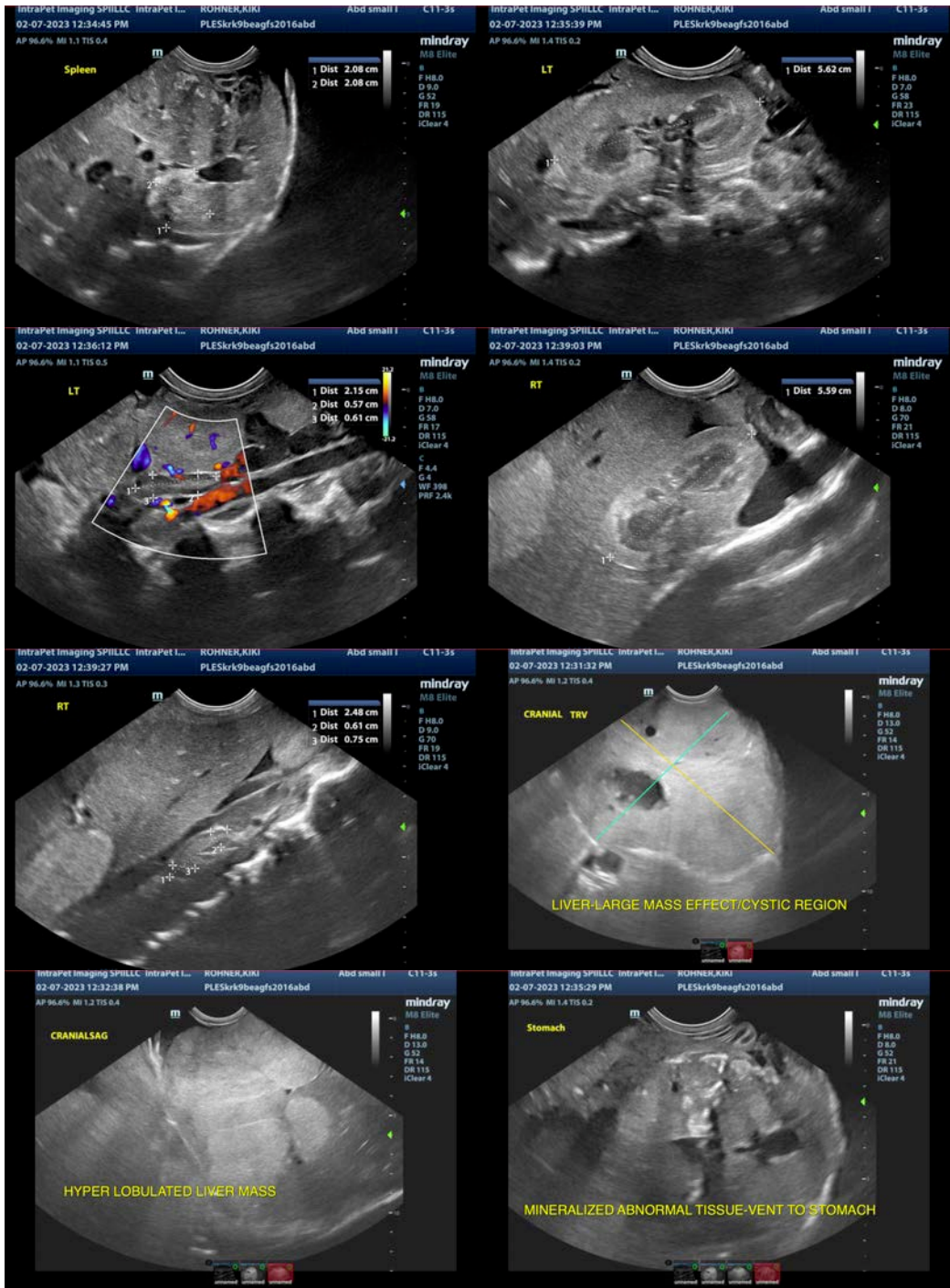
- Mildly echogenic debris in the urinary bladder – The echogenic debris in the bladder lumen could be consistent with cells, crystals, and/or mucus.

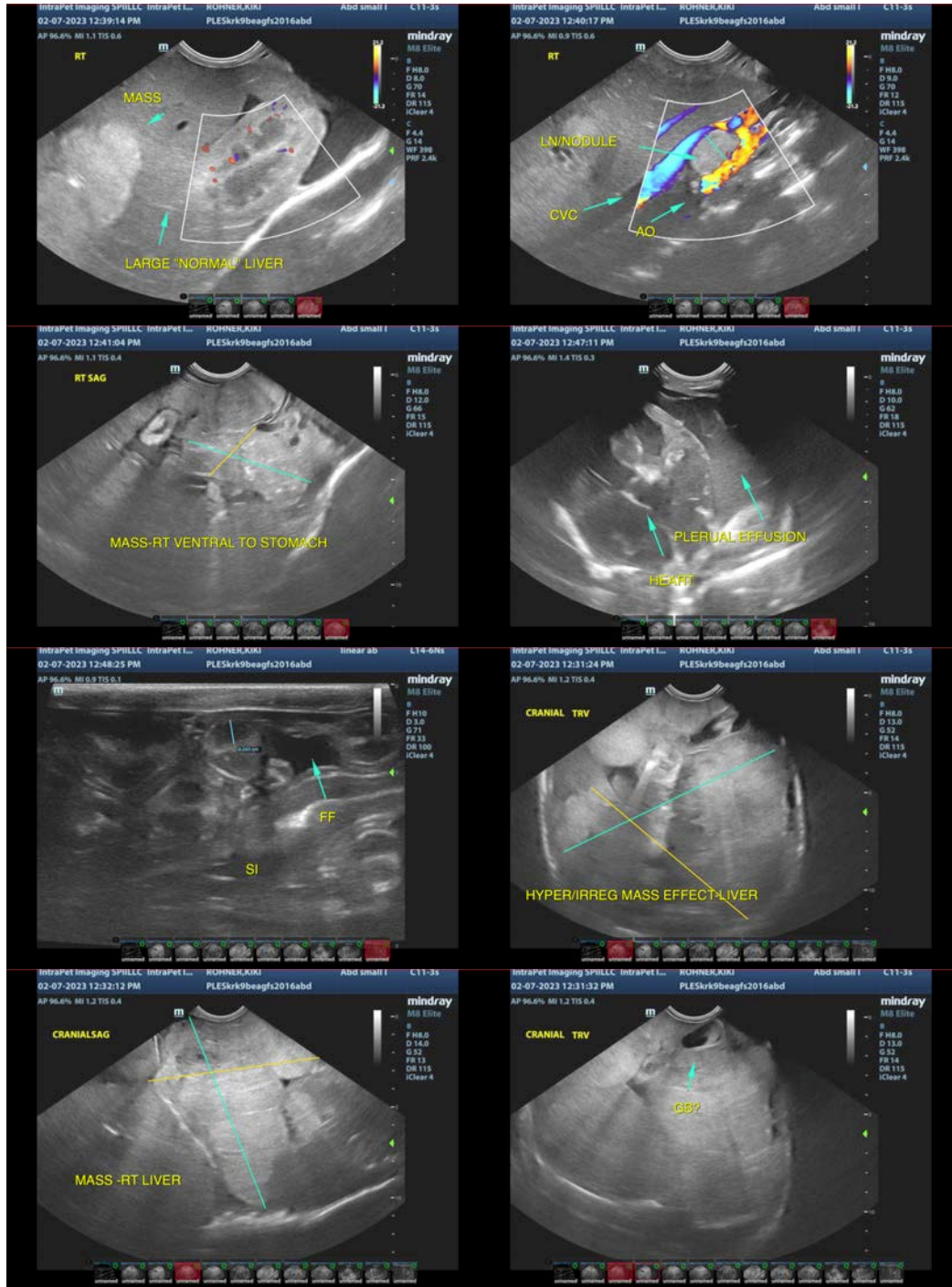
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There is a massive hyperechoic lobulated mass effect within the liver that occupies approximately 75% of the hepatic tissue visualized. This lies primary on the left side of the liver and is suspected to be a primary hepatic mass lesion due to its size. Consider a fine needle aspirate to rule out lymphoma. If this is most consistent with a primary hepatic mass lesion, chemotherapy tends to be of limited value. A contrast CT scan could be considered to evaluate further for possible surgical options, although the extent of the mass lesion and the presence of pleural effusion and lesions visualized possibly in the spleen and pancreas make it concerning that the primary hepatic lesion may have spreads.

Additionally, you could consider sampling of the abdominal and pleural effusion. I suspect sampling of the pleural effusion would make the patient more comfortable and thus have therapeutic value. Additionally, a fine needle aspirate of the mineralized lesion in the region of the pancreas may be helpful, but a small gauge needle is warranted, as this appears relatively vascular.

Based on the bi-cavitary involvement as well as suspected multi-organ involvement, the prognosis would be guarded to poor for this individual.





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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