

**DATE PRESENTING CLINICAL SIGNS**

10.20.2022

Liver mass found on previous U/S. Had surgery 1/21 for removal. Biopsy revealed hepatocellular carcinoma. Bx also done of duodenum and jejunum which revealed subacute lymphoplasmacytic eosinophilic enteritis. U/S done 4/21 and 7/21 and 10/21 and 1/22 and no obvious

**PATIENT**

return of liver mass. U/S done 4/22 revealed swelling R caudal aspect of liver and swollen gastric LN. U/S done 7/22 seemed similar. Want to make sure no recurrence of cancer.

Gizmo Bosley

**SPECIES**

Current Medications: Levothyroxine 0.4 mg 1 po bid., liver supplements, herbs

Lab Results: 1/22 ALKP 2257, BUN 39, Ca 11.3. 4/22 ALKP 2587, ALT 10, BUN 37, Ca 11.3, T4 2.1, FT4 21.2. 6/22 ALKP 3428, ALT 9, BUN 38. 10/22, ALKP 2843, ALT 130, BUN 28, Ca 10.7. ACTM Stim 7/21 pre 2.7, post 16.6.

Canine

**BREED**

Date of Previous IntraPet Ultrasound: 6/30/22. See attached.

4/28/22, 1/27/22, 10/14/21, 7/8/21, 4/8/21, 11/19/20, and 11/8/18.

Terrier Mix

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

**SEX**

Imaging Performed By: Rachel Brillhart, RDMS.

Neutered Male

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****AGE****Urinary System**

6/20/2009

The **urinary bladder** wall is normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended with anechoic urine. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.

**WEIGHT**

45lbs

The **prostate** is normal in size (1.0 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

**INTERPRETED BY**

The **left kidney** is normal size (6.66 cm in length) with a slightly irregular shape. The cortex is mildly heterogenous. There is a normal 1:3 cortex to medulla ratio with poor corticomedullary distinction. Several nonobstructive nephroliths are visualized. A 2.50 cm cortical cyst is observed at the caudomedial aspect. There is no evidence of pyelectasia or hydroureter. Renal vasculature is normal.

The **right kidney** is normal size (6.44 cm in length) with a slightly irregular shape. The cortex is mildly heterogenous. There is a normal 1:3 cortex to medulla ratio with poor corticomedullary distinction. Several nonobstructive nephroliths are visualized. A 2.16 cm cortical cyst is observed at the caudolateral aspect. There is no evidence of pyelectasia or hydroureter. Renal vasculature is normal.

**HOSPITAL NAME**

Healing Paws Vet  
Wellness Ctr

**REFERRING VET**

Dr. Levitsky

**Adrenal Glands**

The **left adrenal gland** is mildly enlarged (0.81 cm at cranial pole) (0.95 cm at caudal pole) (3.00 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

**INVOICE**

11869

The **right adrenal gland** is mildly enlarged (0.97 cm at cranial pole) (0.77 cm at caudal pole) (2.93 cm in length); with a relatively normal shape. The parenchyma is subtly heterogenous with some loss of glandular detail. The phrenicoabdominal vein and surrounding vasculature are normal.

**Spleen**

The **spleen** is normal in size (1.56 cm in width at the level of the hilus) with a normal capsular contour. The parenchyma is subtly mottled in appearance. No focal lesions are observed. Splenic vasculature is normal.

### **Liver**

The **liver** is subjectively enlarged slightly irregular peripheral contours. The parenchyma is isoechoic relative to the spleen and diffusely mottled, and heterogenous in appearance, with a few, ill-defined hyperechoic nodules throughout the organ. An approximately 5.00 cm swelling/mass is observed on the right side, at the caudal aspect. The lesion causes capsular expansion. In addition, a 2.20 x 2.10 cm isoechoic to heterogenous, slightly cavitated nodule/mass is observed deep on the left side. This lesion also appears to cause slight capsular expansion. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

The **gall bladder** lumen is moderately distended. The wall is thin and smooth. A small to moderate amount of aggregated, echogenic, mostly gravity dependent debris is observed within the lumen. The cystic and common bile ducts are normal/not seen.

### **Gastrointestinal**

The **stomach and intestine** are free of stasis and exhibit normal peristaltic activity. The gastric lumen is not distended. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. The small intestinal lumen is not dilated. The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. There is no evidence of an obstructive pattern.

### **Pancreas**

The right limb of the **pancreas** is visible with normal curvilinear peripheral contours. The parenchyma is largely isoechoic relative to surrounding omental fat and slightly mottled in appearance. The pancreatic duct is borderline dilated (0.33 cm in diameter). There is no evidence of peripancreatic inflammation or effusion.

### **Free Abdomen**

The **peritoneal cavity** is normal. There is no evidence of inflammation or effusion. The abdominal **lymph nodes** are normal/not visible.

## **ULTRASONOGRAPHIC FINDINGS**

### **Primary Findings**

- Right caudal hepatic swelling/mass. Changes are similar to the previous sonogram. Differentials include recurrence of the adenocarcinoma, adenoma, focus of vacuolar hepatopathy, other.
- Left hepatic nodule/mass. This lesion is also concerning for the possibility of recurrence of the hepatocellular adenocarcinoma. Other differentials include a focus of regenerative nodular hyperplasia or inflammation. This is a new finding.

### **Secondary Findings**

- Bilateral degenerative renal changes with nonobstructive nephrolithiasis and cortical cysts. Changes are similar to the previous sonogram.
- Mild bilateral adrenomegaly. Changes are similar to the previous sonogram.
- Age-related pancreatic remodeling, +/- fibrosis. Concurrent mild pancreatitis may also be present, particularly if the patient's clinical history supports this diagnosis. Changes are similar to the previous sonogram.

- Suspected benign splenic changes (i.e., extramedullary hematopoiesis or lymphoid hyperplasia), with a lower possibility of emerging neoplasia. Changes are similar to the previous sonogram.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Three-view thoracic radiographs are recommended to assess for pulmonary metastases.

Consider consultation with a board-certified surgeon to discuss removal of the hepatic masses. An abdominal CT scan would be useful in presurgical planning. Aspiration of the lesions can also be considered if clotting status is appropriate. Otherwise, continued sonographic monitoring and palliative care is recommended.





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.

**Andrea Nicastro, MPH, DVM, Diplomate DACVIM (Small Animal Internal Medicine)**  
[info@SonoPath.com](mailto:info@SonoPath.com)