



<b>PATIENT</b>	<b>PRESENTING CLINICAL SIGNS</b>
Gretel Griswold	History: Pet has had a U/S done previously on 5/12/2023 and a 2.3 cm liver nodule was noted along with a adrenal mass
<b>SPECIES</b>	
Canine	Abnormal PE/Chem/CBC/UA Results: Bloodwork done on 8/8/23 showed elevated ALKP 1692, ALT 225, AMYL 1598, CHOL 497, GGT 22, T.P 7.8, PSL LIPA 144, HEMATOCRIT 34%, HEMOGLOBIN 10.2
<b>BREED</b>	
Mixed	
<b>SEX</b>	
Female Spayed	
<b>AGE</b>	
14 years	
<b>WEIGHT</b>	
47 lbs	
<b>INTERPRETED BY</b>	
Beth Johnson, DVM DACVIM	
<b>IMAGING PERFORMED BY</b>	
Marco Lichfield	
<b>HOSPITAL NAME</b>	
Sova AH	
<b>REFERRING VET</b>	
Robert Sova	
<b>INVOICE</b>	
14140	
<b>DATE</b>	
8.17.23	

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

Urinary bladder is adequately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

**Kidneys** are overall normal in size (left 6.45 cm) (right 6.75 cm) and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. Trace pyelectasia is noted bilaterally. There is no evidence of mineral or infarcts observed.

**Adrenal Glands**

Left adrenal gland is normal in size (0.68 cm at cranial pole / 0.67 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

The adrenal gland is enlarged (3.59 cm x 3.14 cm) with mild heterogenous parenchymal changes. Swollen capsular expansion is noted without evident capsular escape or vascular invasion.

**Spleen**

Spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). Multifocal well-demarcated hyperechoic homogenous nodules are noted. Splenic vasculature appears normal. A 2.30 x 2.50 cm (mildly more heterogenous than the other nodules) hyperechoic nodule that results in a mild capsular bulge is noted.

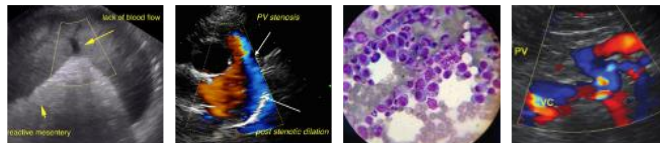
**Liver**

Liver is subjectively enlarged with mildly irregular margins. Parenchyma is markedly heterogenous, characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. Visible vasculature and biliary tree appear normal without distension or congestion. In the mid-caudal liver, there is a 6.00 x 7.70 cm, more discrete, more significantly heterogenous, but primarily hypoechoic, nodule/mass.

Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

**Gastrointestinal**

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent. intraluminal gas. There is no evidence of obstruction, foreign material or infiltrative disease; however, complete visualization of far wall is partially inhibited by gas. Pyloric outflow tract appears patent.



**PATIENT** The visible small intestines are normal in wall thickness and layering. Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

Gretel Griswold

**SPECIES** The visible colon is normal in wall thickness and layering. Contents are consistent with normal formed feces and gas.

Canine

**BREED** *Pancreas*

The observed pancreas appears appropriately isoechoic to surrounding omental fat. Visible capsule is smooth and normal in contour. Visible pancreatic parenchyma is homogenous and unremarkable. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Mixed

**SEX**

*Free Abdomen*

Female Spayed There is no evidence of peritoneal effusion. There is no apparent lymphadenopathy.

**AGE**

**ULTRASONOGRAPHIC FINDINGS**

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**WEIGHT**

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- The liver is diffusely heterogenous with likely a degree of nodular hyperplasia vs steroidal reactive hepatopathy, vs other. However, a previously measured 2.30 cm nodule has progressed in both size and appearance and is more concerning for more significant pathology, such as infiltrative neoplasia (i.e., hepatocellular carcinoma, sarcoma round cell neoplasia vs other). A benign hepatoma/adenoma or macronodular hyperplasia is still possible but considered less likely.
- The right adrenal mass is static to slightly-progressive in size.
- Spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). Multifocal well-demarcated hyperechoic homogenous nodules are noted. Splenic vasculature appears normal.
- The mild gall bladder debris is static in appearance
- Static age-related kidney changes

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

- Three view thoracic radiographs are recommended for further assessment of cardio-pulmonary status as well as to further evaluate for any evidence of metastatic disease, if not recently evaluated.
- A fine-needle aspirate of the liver mass is recommended if coagulation status of the patient is appropriate.
- Beyond that, further recommendations are dependent in part on the results of the above, combined with previous diagnostics, patient clinical signs, etc.



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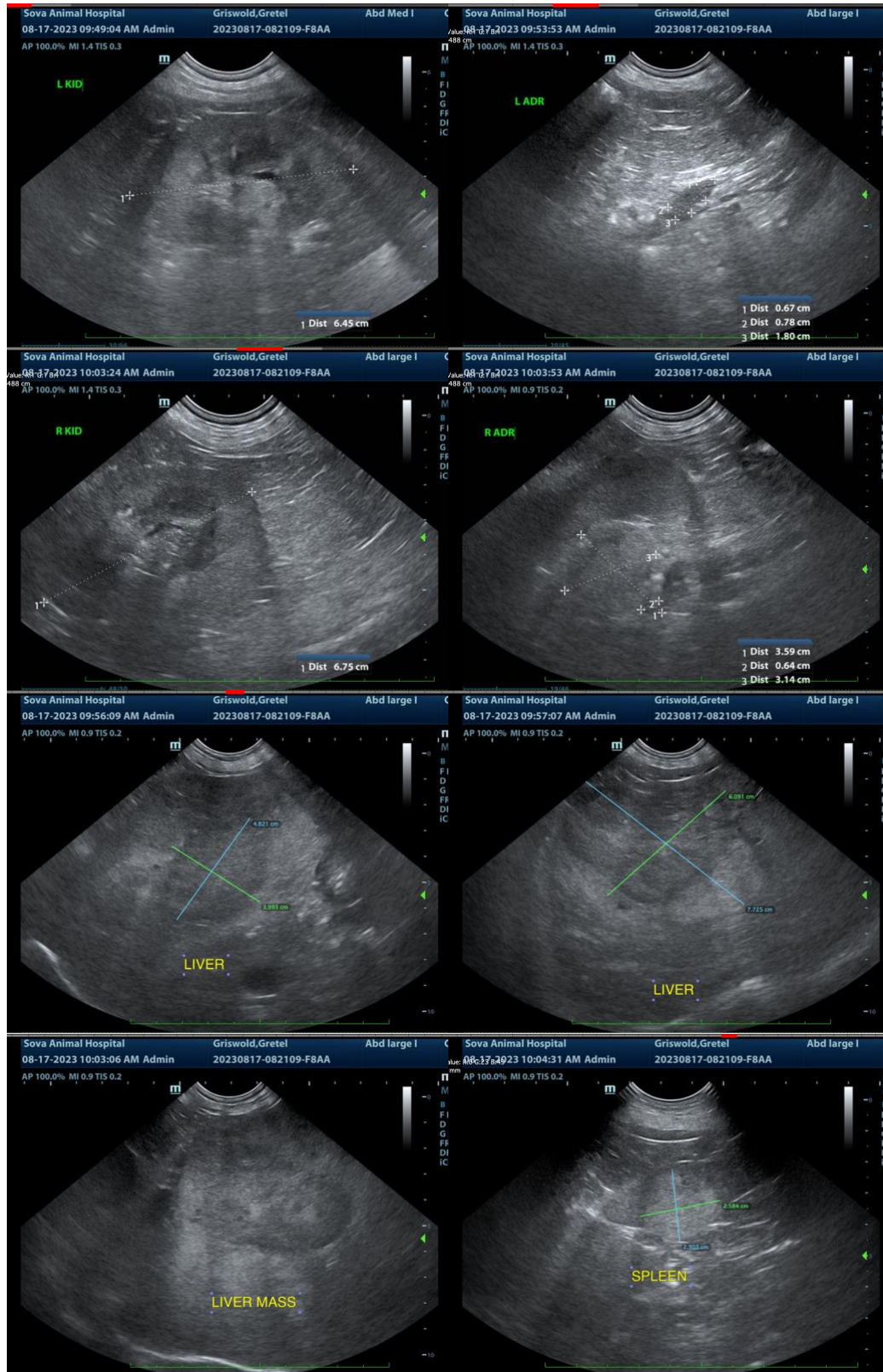
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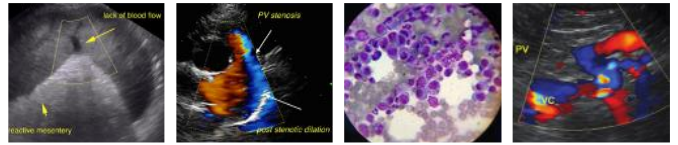
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**PATIENT**

Gretel Griswold

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.

**SPECIES**

Canine

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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Mixed

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info@SonoPath.com

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