

**DATE PRESENTING CLINICAL SIGNS**

9/20/22 Decreased energy, appetite down. Weight loss.

**PATIENT** Current Medications: Apoquel 5.4mg QD.  
Lab Results: See attached.

Shadow Ingrassia

**SPECIES** Date of Previous IntraPet Ultrasound: No previous.  
Sedation: Not required to complete full diagnostic ultrasound.  
Stat Report: Not requested.

Canine

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

Schnoodle

The urinary bladder is moderately 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.

**SEX**

Neutered Male

Prostate is normal in size, echotexture and echogenicity for a neutered male.

**AGE**

5/17/07

The right kidney is normal in size (3.87 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

**WEIGHT**

12 Pounds

The left kidney is normal in size (3.81 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**Adrenal Glands**

The right adrenal gland is normal in size (2.0 cm long x 0.67 cm at the cranial pole and 0.70 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

**IMAGING PERFORMED BY**

Rachel Brillhart RDMS

The left adrenal gland is normal in size (1.7 cm long x 0.73 cm at the cranial pole and 0.66 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

**HOSPITAL NAME**

Festival Vet Clinic

**Spleen**

The 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). No focal nodules or masses are observed. Splenic vasculature appears normal.

**REFERRING VET**

Dr. Cianelli

**Liver**

The liver contains a large, 6-7 cm x 8-10 cm mass in the mid deep liver that is heterogeneous/mixed and cavitated in appearance. There is a scant amount of anechoic free fluid around the mass.

**INVOICE**

41435

The gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.

**Gastrointestinal**

The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). 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.

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

### ***Pancreas***

Pancreas is prominent in size with swollen irregular contour. Parenchyma is heterogenous characterized by hyperechoic tissue remodeling intermixed with ill-defined hypoechoic nodules. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation. Chronic active pancreatitis cannot be ruled out.

### ***Free Abdomen***

There is a very scant amount of free fluid around the liver mass.

There is no apparent lymphadenopathy noted in these images.

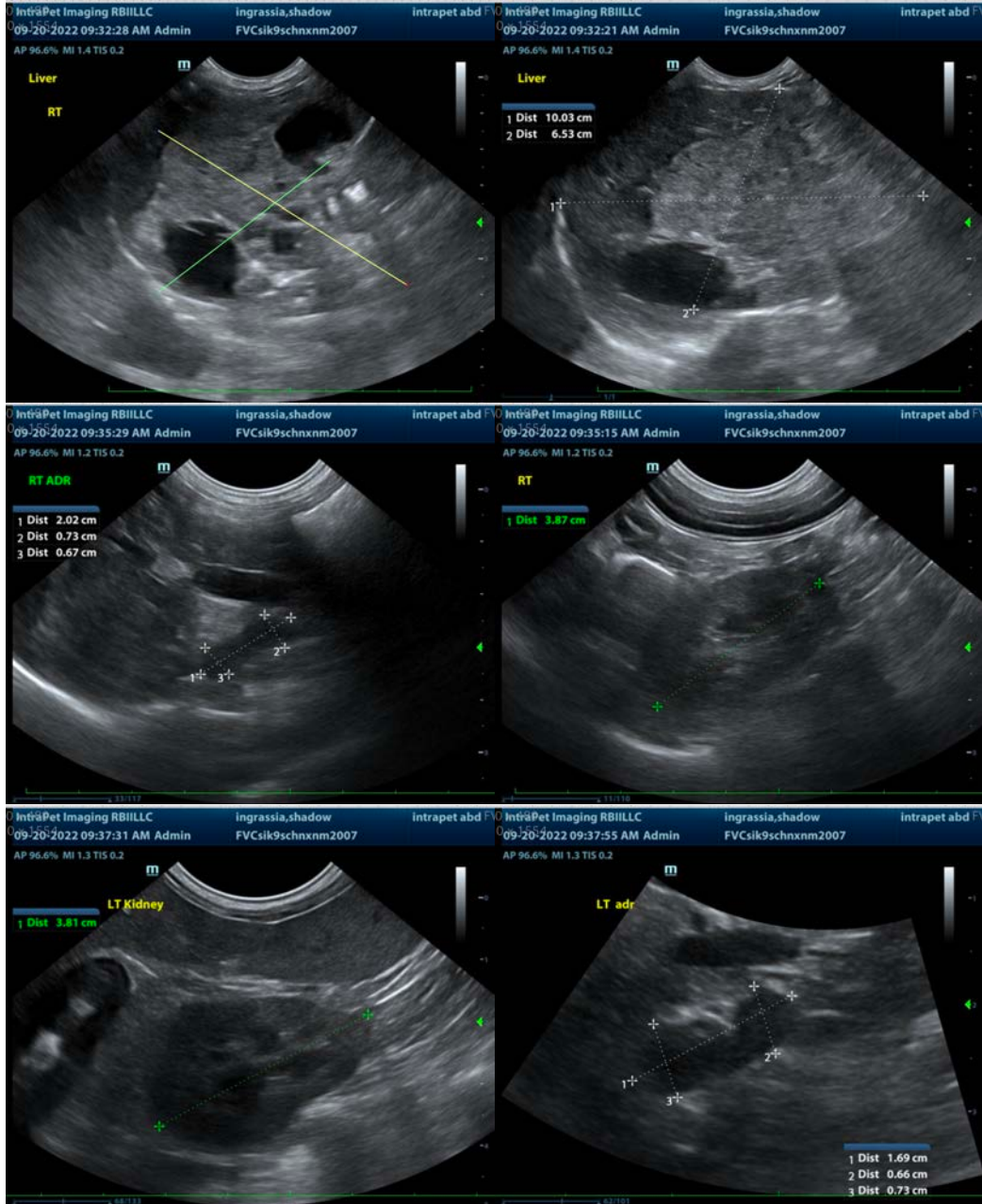
## **ULTRASONOGRAPHIC FINDINGS**

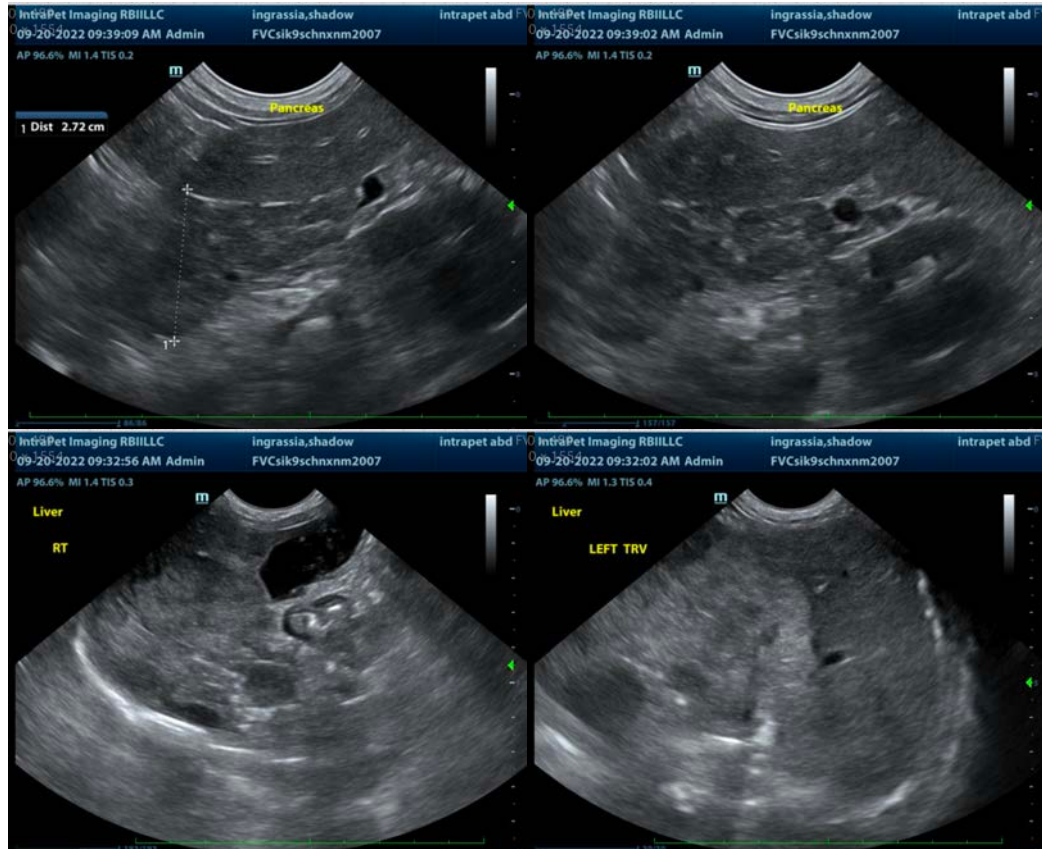
- **Large, mixed heterogeneous cavitated liver mass** – most concerning for infiltrative malignant neoplasia such as sarcoma or primary hepatic neoplasia such as hepatocellular carcinoma. A benign tumor such as a cystic or necrotic hepatoma or adenoma or abscess, etc. cannot be ruled out but is considered much less likely.
- **Pancreatic nodular hyperplasia** – Infiltrative neoplasia cannot be ruled out but is considered less likely. Chronic active pancreatitis cannot be ruled out.

## **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 could be considered if patient's coagulation status is appropriate. However, given the risk for hemorrhage, etc., if tissue sampling is elected, an exploratory laparotomy with excisional biopsies/mass removal/liver lobectomy is recommended. Given the size and location of the mass, full resectability cannot be determined. A pre-surgical planning abdominal CT scan could be considered for more information about probability of resectability.





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.

**Beth Johnson, DVM, DACVIM**  
Beth.Johnson@sonopath.com