

**DATE PRESENTING CLINICAL SIGNS**

11/15/22

Recheck AUS, pre-OVH labs revealed marked BUN elevation w/normal creat. AUS 101/0 showed medullary rim sign bilaterally, splenic micronodular hyperplasia, reactive appearing mesenteric LN and enlarged/aggressive appearing sublumbar LN. Planned FNA's for 10/19, but labs had improved, and ultrasound appearance of spleen had also improved w/static kidneys and LN. Elected to hold on addition testing and recheck. Clinically normal.

PATIENT

Gunner Kyger

SPECIES

Feline

Current Medications: None.

Lab Results: 9/27: SDMA 19, BUN 89, creat 1.6. 9/29: USG 1.028, pH 8.5, 1+ protein, 2-5 WBC, 2-5 RBC, rare rods and cocci, negative culture

10/6: BUN 73, creat 1.3. 10/19: BUN 61, creat 1.2, PLT 692K

Date of Previous IntraPet Ultrasound: 10/10/22. See attached.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

BREED

DSH

SEX

Intact Female

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

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.

AGE

4/12/22

The right kidney is normal in size (3.76 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. A hyperechoic band parallel to the corticomedullary border is present.

WEIGHT

2.85 kg

INTERPRETED BYBeth Johnson, DVM
DACVIM

The left kidney is normal in size (3.43 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. A hyperechoic band parallel to the corticomedullary border is present.

IMAGING PERFORMED BY

Andi Parkinson RDMS

Adrenal Glands

The right adrenal gland is normal in size (0.30 cn), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

HOSPITAL NAME

Nexus Vet Specialists

The left adrenal gland is normal in size (0.36 cm), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

REFERRING VET

Dr. Steele

Spleen

Spleen is generally normal in size and shape with a smooth capsular contour. Parenchyma is diffusely nodular in appearance characterized by small discrete hypoechoic nodules. This change is primarily visible with the linear probe and may be a consequence of probe sensitivity. Splenic vasculature appears normal.

INVOICE

42706

Liver

The liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

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

The pancreas is visible and mildly hypoechoic in appearance with no evidence of active inflammation, pancreatic duct dilation, etc.

Free Abdomen

There is no evidence of free peritoneal effusion noted in these images.

The mesenteric lymph nodes are prominent in size with swollen capsular contour. Normal elongated shape (length to width ratio) is maintained. There is no loss of parenchymal detail.

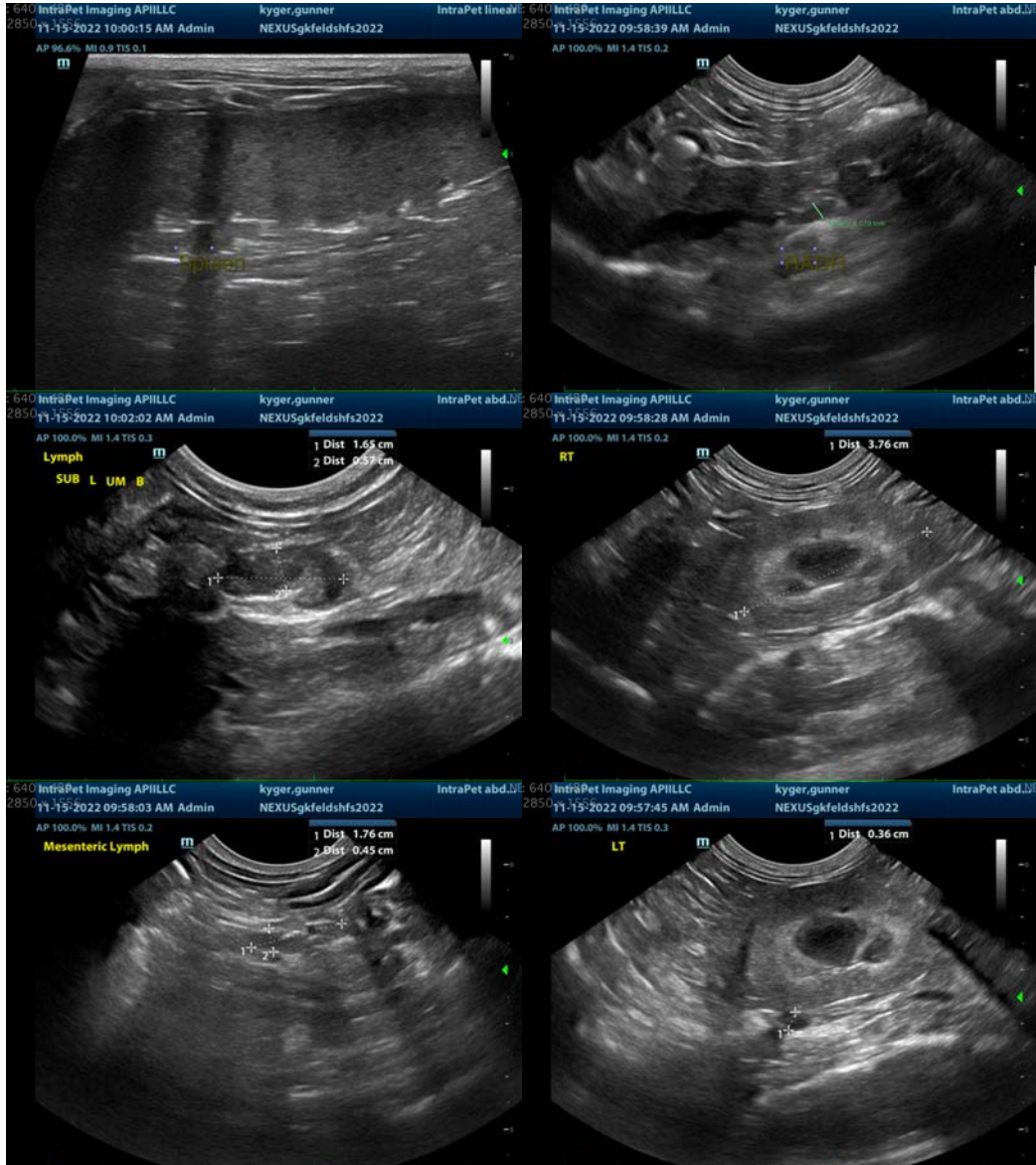
Sublumbar lymphadenopathy is noted. The visible sublumbar lymph node described is hypoechoic in appearance, but smaller than noted on the previous ultrasound, measuring 1.65 cm long x 0.57 cm thick.

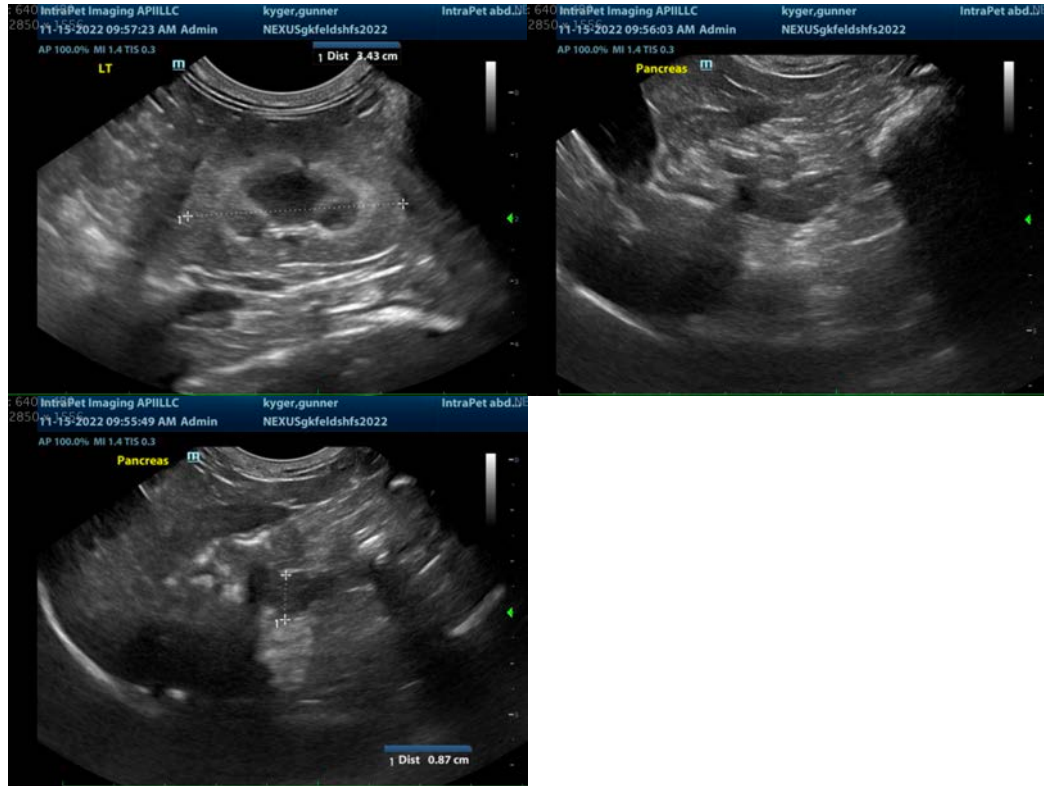
ULTRASONOGRAPHIC FINDINGS

- **Bilateral medullary rim sign** - This finding is of unknown clinical significance and can be a normal variant, often idiopathic. Medullary rim sign can be present with renal disease including FIP, lymphoma, hypercalcemic nephropathy, Leptospirosis, tubular disease, other and should be interpreted in combination with other more specific indications of kidney disease such as isosthenuria, proteinuria, azotemia, etc. This is a common incidental finding in patients with diabetes mellitus.
- **Splenic micronodular hyperplasia pattern** - This nodular change is often associated with benign aging nodular hyperplasia. Infiltrative neoplasia, however, including both early hemangiosarcoma as well as round cell neoplasia cannot be ruled out. Given this patient's young age, this pattern is slightly more concerning. However, it is only visible with the sensitive linear probe, so normal patient variant combined with probe sensitivity may be resulting in the appearance.
- The pancreas is visible, but not overtly abnormal, with no evidence of inflammation. This may be normal age/patient variant, or mild acute pancreatitis cannot be definitively ruled out.
- **Reactive mesenteric lymph nodes** - infiltrative neoplastic disease cannot be ruled out but is considered less likely.
- Sublumbar lymphadenopathy remains present, but appears improved/smaller/less severe than on the previous exam.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Overall, the pathology described above is static to slightly improved from the previous exam. No further recommendations at this time, as recommendations regarding this exam will be made and implemented by Dr. Cara Steele.





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