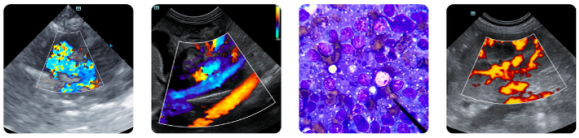


PATIENT

Tax Birchall

SPECIES

Feline

BREED

Ragdoll

SEX

MN

AGE

16 years

WEIGHT

4.59 kg

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Amanda Stewart

HOSPITAL NAME

Governors Road AH

REFERRING VET

Dr. Dogar

INVOICE

11163

DATE

PRESENTING CLINICAL SIGNS

OBJECTIVE: QAR HR 190 RR 24. Normal heart and lungs. Moist pink mm's. CRT< 2 sec. Mild dental plaque. Resorptive lesion 307. Rest of oral cavity is fine. Bilateral lens sclerosis. Normal ears and LN's. No obvious palpable masses/FB noticed. Small intestines appear thickened on palpation. Mild plantigrade stance noticed. Normal palpation of all 4 limbs, spine and hip

Current Medications:Buprenorphine, Cerenia, Cefazolin, Metronidazole, Famotidine, ProLiv supplement.

Abnormal PE/Chem/CBC/UA Results: Values RBC: 6.34, HCT: 0.29 (0.303-0.523) ALT: 416, ALP: 219, GGT: 16, CHOL: 9.75, BT: 32, QPL: 28 Primary Question to Be Answered in This Exam ASSESSMENT:r/o: neuropathy, plantigrade stance, IBD, tumour, hepatobiliary/metabolic/endocrine, pancreatitis, others Steps to go forward in treatment.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is adequately distended. It has a normal uniform wall thickness. Contents include primarily anechoic fluid with occasional echogenic non-shadowing debris, most consistent with incidental suspended lipid in a cat, possibly combined with exfoliated cells, mucous and/or small blood clots. Both sterile inflammation as well as urinary tract infection can also present with echogenic debris. No masses or definitive cystoliths are observed. The trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

The right kidney is normal is size (4.05 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. A small 0.5 cm in diameter anechoic cortical cyst in the caudal pole of the right kidney was noted. Hypoechoic rims around both kidneys that in some views appears to be perinephric free fluid, but in some views is more consistent with a subcapsular rim or “halo” sign. There is no evidence of pyelectasia, mineral or infarcts observed.

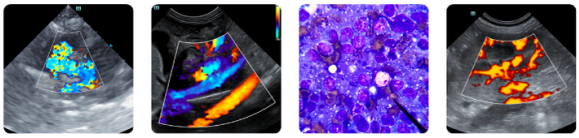
The left kidney is normal is size (4.39 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. Hypoechoic rims around both kidneys that in some views appears to be perinephric free fluid, but in some views is more consistent with a subcapsular rim or “halo” sign. There is no evidence of pyelectasia, mineral or infarcts observed.

Adrenal Glands

The right adrenal gland is normal in size (0.45 cm), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

The left adrenal gland is normal in size (0.35 cm), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

Spleen



SonoPath FOSTERING THE ART OF VETERINARY MEDICINE™ www.thefocalzone.com info@thefocalzone.com 289.808.2608

PATIENT

Tax Birchall

SPECIES

Feline

BREED

Ragdoll

SEX

MN

AGE

16 years

WEIGHT

4.59 kg

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Amanda Stewart

HOSPITAL NAME

Governors Road AH

REFERRING VET

Dr. Dogar

INVOICE

11163

DATE

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.

Liver

Liver is subjectively enlarged (swollen contour). Mild parenchymal remodeling with diffusely mildly coarse architecture and increased portal markings is present. No focal nodules or masses are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. Some of the debris has a mineral/sand appearance. No evidence of obstruction in these images at this time. 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.

The visible small intestine demonstrates areas of moderately thick muscularis layer relative to mucosa (disruption of the normal 1:3 muscularis:mucosa ratio). Small intestinal submucosa is slightly irregular, thick and hyperechoic, without evident loss of layering appreciated. The lumen of the small intestine is mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is no evidence of obstruction or foreign material noted.

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 (enlarged) in size, hypoechoic to surrounding tissue and has a mildly irregular undulating contour. Parenchyma is coarse with mixed echogenic remodeling noted. No pancreatic duct dilation is noted.

Free Abdomen

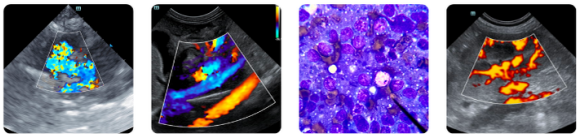
Trace free fluid may be present around both kidneys versus a potential or subcapsular rim sign, as described above.

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.

In the mid to caudal abdomen there's an approximately 1.0 cm x 1.9 cm in size solid, coarse, hypoechoic density that may also represent an enlarged lymph node, potentially medial iliac lymph node. Although, definitive origin of the density is difficult to determine,

PRIMARY FINDINGS

- The mid to caudal abdominal mass/enlarged lymph node could represent infiltrative neoplasia such as round cell neoplasia i.e. lymphoma versus other. A benign inflammatory or reactive lesion can't be ruled out but is considered less likely.



SonoPath FOSTERING THE ART OF VETERINARY MEDICINE™ www.thefocalzone.com info@thefocalzone.com 289.808.2608

PATIENT

Tax Birchall

SPECIES

Feline

BREED

Ragdoll

SEX

MN

AGE

16 years

WEIGHT

4.59 kg

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Amanda Stewart

HOSPITAL NAME

Governors Road AH

REFERRING VET

Dr. Dogar

INVOICE

11163

DATE

- The liver changes are non-specific but similarly could represent a microscopic hepatopathy including both benign differentials such as bacterial or lymphoplasmacytic cholangiohepatitis. Other infectious or reactive hepatopathies, hepatic lipidosis, etc. or infiltrative neoplasia such as round cell neoplasia i.e. lymphoma versus other and can't be differentiated without tissue sampling.
- Possible bilateral subcapsular rim or "halo" sign around the kidneys can be seen with renal lymphoma. Although, in some views this appears to be free retroperitoneal fluid versus subcapsular rim. Therefore, it is not pathognomonic for lymphoma.
- Moderate inflammatory bowel disease (IBD) pattern – Thick muscularis has been reported with infiltrative bowel disease including both benign inflammatory disease as well as infiltrative neoplasia such as lymphoma. No loss of layering or distinct characteristics of malignancy are present. Therefore, differentials cannot be further ranked without tissue sampling.
- Concurrent chronic low grade smoldering pancreatitis can't be ruled out and should be suspected in the face of appropriate clinical signs.

SECONDARY FINDINGS

- A mild to moderate amount of echogenic urinary bladder debris.
- An incidental cortical cyst in the right kidney.
- Gallbladder debris – Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness, however, it can also be associated with hepatobiliary disease in cats and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.

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.

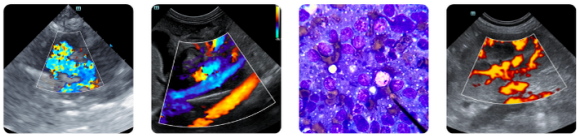
A T4 +/- Free T4 is recommended if not already evaluated.

Tissue sampling is recommended beginning with fine needle aspirates of the liver, the mid to caudal abdominal structure/suspect enlarged lymph nodes +/- the kidneys, if patient's coagulation status is appropriate.

A gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory is recommended for further evaluation of GI and pancreatic function.

Bile acids could be considered if patient's total bilirubin is not increased.

In the meantime, treatment recommendations include fluid therapy, anti-emetics, gastroprotectants, hepatic nutraceuticals such as ursodiol and/or Denamarin, and broad-spectrum antibiotics. Nutritional support is critical to prevent/manage concurrent hepatic lipidosis, so appetite stimulants and/or, if indicated, feeding tube placement is also recommended.



PATIENT

Tax Birchall

SPECIES

Feline

BREED

Ragdoll

SEX

MN

AGE

16 years

WEIGHT

4.59 kg

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Amanda Stewart

HOSPITAL NAME

Governors Road AH

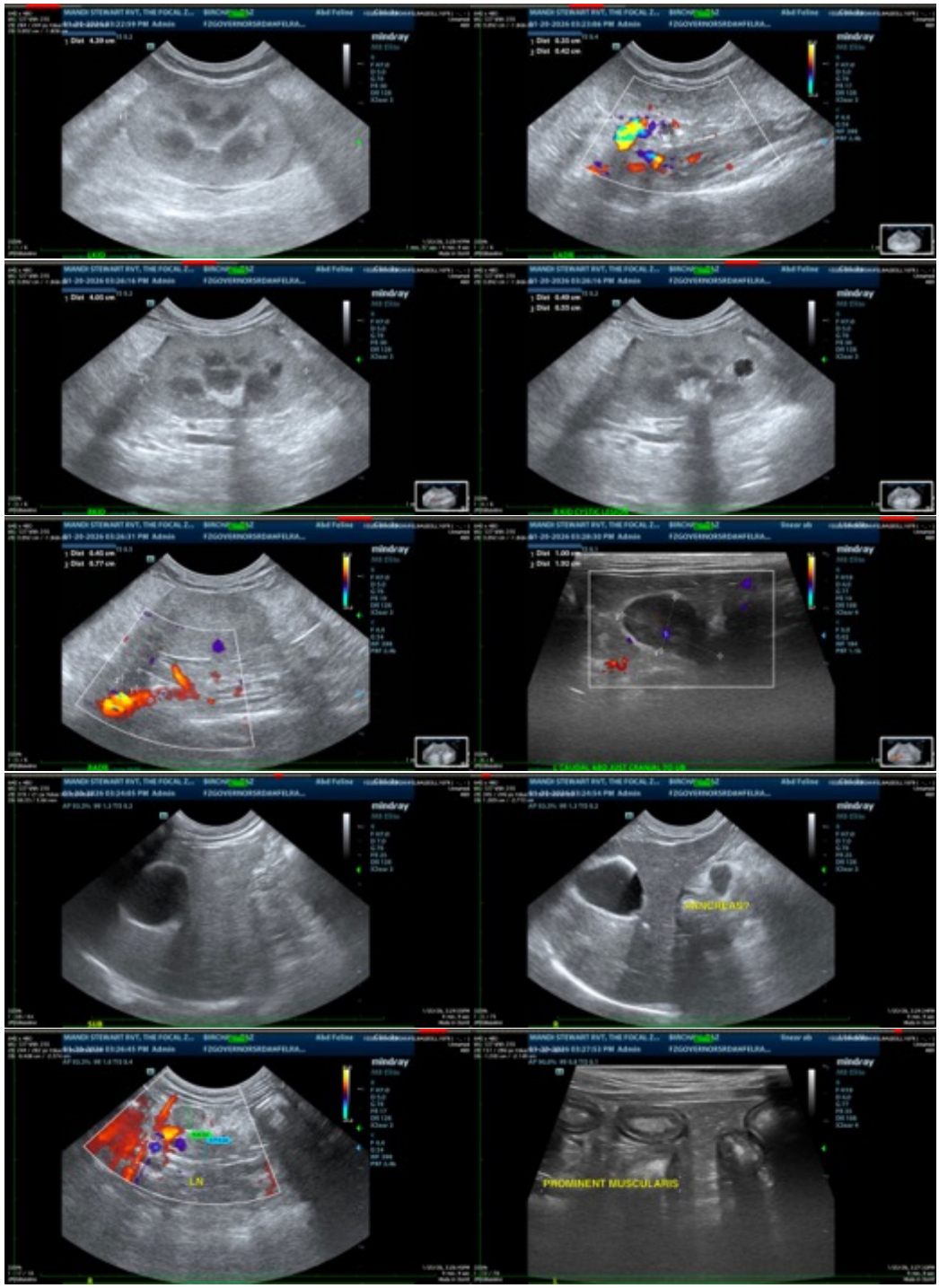
REFERRING VET

Dr. Dogar

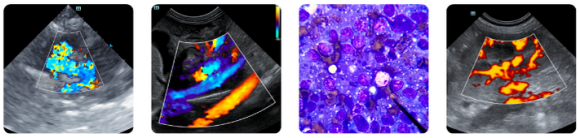
INVOICE

11163

DATE



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.



SonoPath FOSTERING THE ART OF VETERINARY MEDICINE™ www.thefocalzone.com info@thefocalzone.com 289.808.2608

PATIENT

Tax Birchall

SPECIES

Feline

BREED

Ragdoll

SEX

MN

AGE

16 years

WEIGHT

4.59 kg

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Amanda Stewart

HOSPITAL NAME

Governors Road AH

REFERRING VET

Dr. Dogar

INVOICE

11163

DATE

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
info@sonopath.com