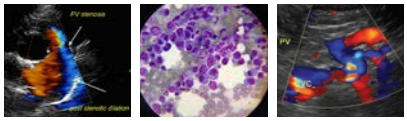
IMAGING PERFORMED BY

IntraPet.com



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DATE

2/14/23

PATIENT

Rudy Utterback

SPECIES

Canine

BREED

Pomeranian X

SEX

Neutered Male

AGE

6/2/09

WEIGHT

5.7 Pounds

INTERPRETED BY

Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)

HOSPITAL NAME

Timonium AH

REFERRING VET

Dr. McIntyre

INVOICE

45116

PRESENTING CLINICAL SIGNS

Stranguria, pollakiuria, mild tenesmus. Chronic RBC on UA.

Current Medications: Deramaxx, Enrofloxacin x 3-4 days.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Patient sedated with Torbugesic.
Stat Report: Not requested.
Imaging Performed By: Andi Parkinson, BS, RDMS.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine. The Bladder wall appears focally thickened, creating a mass effect in the distal ventral aspect of the urinary bladder involving the trigone region. This area measures 0.96 cm x 2.27 cm. The thickened irregular tissue appears to extend into the proximal urethra and may coalesce with the prostate (difficult to distinctly see prostate). The pre-prostatic urethral wall measures 0.26 cm. The remaining areas of urinary bladder appear mildly thickened with no focal lesions. No calculi are visualized.

The prostate is somewhat indistinct and is suspected to coalesce with the thickened pre-prostatic urethra. It measures 1.07 cm with a significantly dilated urethra.

The left kidney has a normal shape and size (2.91 cm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (3.25 cm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.50 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

The right adrenal gland is normal in size measuring 0.46 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

Spleen

The spleen is subjectively normal in size, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

Liver

The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is homogenous echotexture. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

The gallbladder is large and significantly distended with a large amount of dependent hyperechoic debris as well as more suspended hyperechoic debris. Some areas of the wall appear mildly thickened with adherent debris. There is no evidence of bile duct dilation.

Gastrointestinal

The stomach contains mild to moderate shadowing ingesta. It measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. Duodenum wall measures 0.40 cm. Jejunum wall measures 0.31 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

Pancreas

The pancreas is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

Other

On some images there is the impression of possible pleural effusion, although I suspect this is dark image artifact as it is not reproduceable. Recommend 3-view thoracic radiographs.

ULTRASONOGRAPHIC FINDINGS

- Irregular mass effect at the ventral trigone region of the urinary bladder with suspected urethral thickening and slightly irregular prostate – Findings are concerning for a possible transitional cell carcinoma with extension into the proximal urethra +/- prostate.

- Decreased corticomedullary distinction in both kidneys – The bilateral renal findings are consistent with age-related change.

- Large hyperechoic gallbladder debris with mild questionable gallbladder wall thickening - While no definitive mucocele is visualized, the debris is significant. Correlate with liver enzymes and recommend Ursodiol therapy and continued monitoring.

- Moderate to small amount of shadowing material within the gastric lumen – Correlate with the feeding history and abdominal radiographs. If the patient was adequately fasted consider such differentials as delayed gastric emptying, a partial outflow tract obstruction (none seen) or ingested foreign material.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The focal mass in the bladder has the characteristics most consistent with a neoplastic lesion, but polyps and inflammatory lesions can sometimes have a similar appearance. A definitive diagnosis cannot be determined by ultrasound alone.

- Consider traumatic catheterization to obtain representative cells for cytology, or biopsy sampling via either cystoscopy (if a female) or surgery.

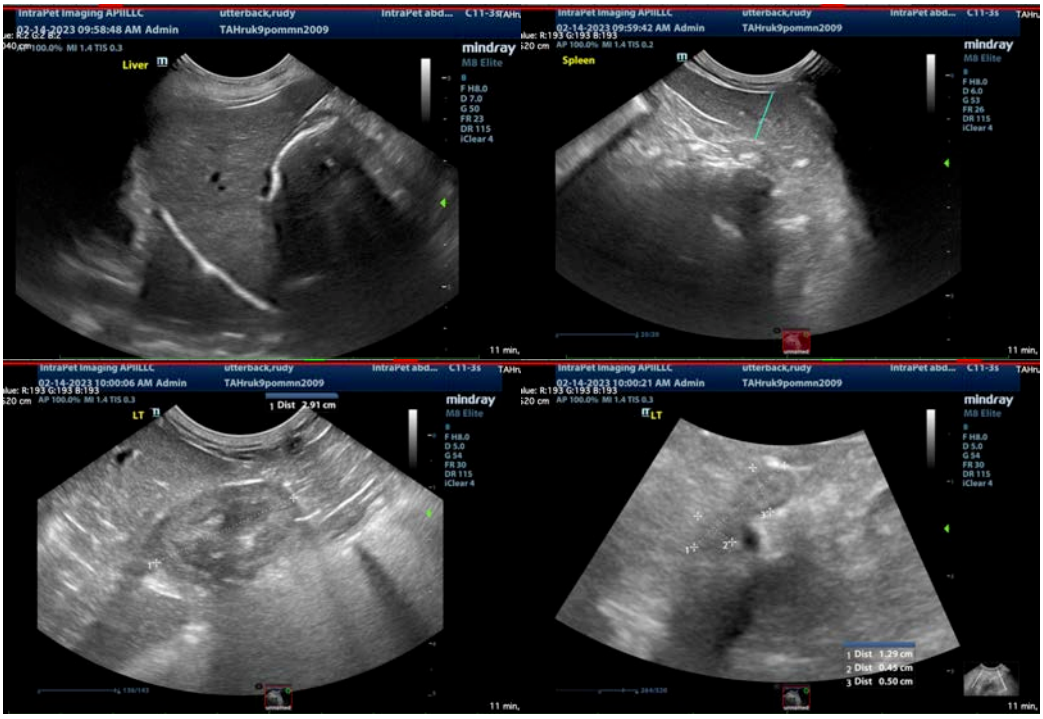
-If a cytologic sample is not available consider urine evaluation for BRAF mutation seen in patients with transitional cell carcinomas. A positive test is consistent with a TCC, a negative test is inconclusive and will need further diagnostics.

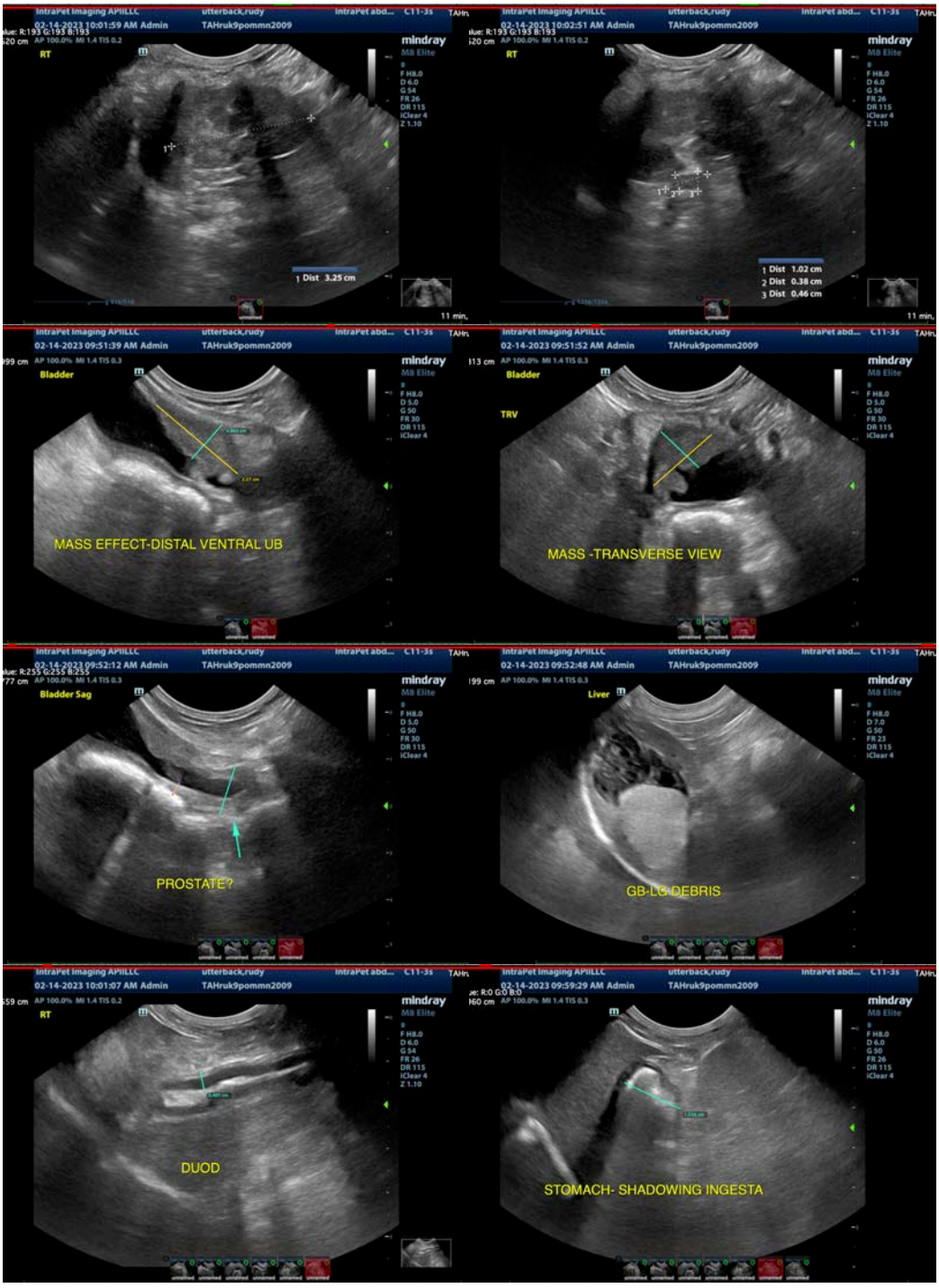
-Patients with bladder pathology should always have urinalysis and culture performed. Ideally cystocentesis should be avoided in patients with suspected bladder masses to try and prevent tracking of tumor cells along the needle path.

-If TCC is confirmed consider referral to/consultation with a board certified. Veterinary oncologist for recommendations regarding treatment options and prognosis.

Recommend three view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement. There is suspected dark image artifact mimicking pleural effusion in some images. Correlate these findings with thoracic radiographs.

There is a large amount of hyperechoic debris visualized within the gallbladder and mild gallbladder wall thickening. Correlate this with liver enzyme values. Consider Ursodiol therapy and continued monitoring for possible progression of this lesion.




RT
1 Dist 3.25 cm
RT
1 Dist 1.02 cm
2 Dist 0.38 cm
3 Dist 0.46 cm
Bladder
MASS EFFECT-DISTAL VENTRAL UB
Bladder
TRV
MASS -TRANSVERSE VIEW
Bladder Sag
PROSTATE?
Liver
GB-LG DEBRIS
RT
DUOD
STOMACH- SHADOWING INGESTA

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.

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