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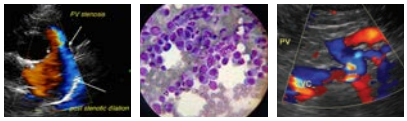

SonoPath

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DATE

11/9/22

PATIENT

Bear Darwish

SPECIES

Canine

BREED

German Shepherd X

SEX

Neutered Male

AGE

3/9/12

WEIGHT

47.6 Pounds

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Andi Parkinson RDMS

HOSPITAL NAME

Belvedere Vet Center

REFERRING VET

Dr. Moulder

INVOICE

42662

PRESENTING CLINICAL SIGNS

Geriatric patient with multiple managed medical health issues (chronic lower urinary tract infections, urinary incontinence, decreased mental alertness, chronic dental disease, large lipoma, multiple, skin masses, heart murmur (II out of VI).) Recently has had 3-4 episodes of apparently intense pain/discomfort in the night time when urinating/defecating.

Current Medications: Carprofen 100mg 1 SID or 1/2 BID, Amantidine 100mg, Tramadol 50mg 1-3 tabs, Gabapentin 100mg, Recently added CBD- unsure of dosage, Selegiline 10mg SID
Lab Results: Blood done at ER ~ 1 week ago: BUN 46, Creat 1.7- normal, ALT 148, Alk P 133- normal, GGT 0- normal, HCT 33.8.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is significantly distended (borderline overdistended) with mildly echogenic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

The visualized areas of prostate and surrounding tissue appear normal. Unfortunately, the prostate is not fully visualized likely due to its intrapelvic location. Correlate with rectal exam findings.

The left kidney has a normal shape and size (5.77 cm) with non-obstructive nephroliths. Overall echogenicity is normal with adequate 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, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (5.64 cm) with non-obstructive nephroliths. Overall echogenicity is normal with adequate 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, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.41 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 region of the right adrenal (between right cranial kidney and vena cava) is unremarkable, but the adrenal is not distinctly visualized. 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. There is a focal hyperechoic nodule within the parenchyma measuring 0.84 cm x 0.74 cm.

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 gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. There is a moderate amount of non-organized echogenic debris. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach contains minimal luminal contents. 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. Jejunum wall measures 0.40 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

A brief view of the heart was submitted. No significant pericardial effusion was seen.

There is the appearance of a homogeneous, mildly hyperechoic, solid mass effect on the right flank subcutaneously. There is the question of possible extension of this lesion into the abdomen versus impinging somewhat on the abdomen. This mass lesion measures 8.5 cm x 8.85 cm and is most consistent with a lipoma.

ULTRASONOGRAPHIC FINDINGS

- Large distended urinary bladder with mildly echogenic urine – The large urinary bladder may indicate difficulty ending. The echogenic debris in the bladder lumen could be consistent with cells, crystals, and/or mucus.

- Non-obstructive nephroliths visualized in both kidneys – The hyperechoic mineralized foci observed at the corticomedullary junction of the left/right kidney are consistent with small, non-obstructive nephroliths.

- Hyperechoic nodule visualized in the spleen – The hyperechoic nature of this nodule is most consistent with a benign lesion. Continued monitoring is warranted.

- Moderate gallbladder debris – The significance of the aggregated gallbladder debris is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting but seems unlikely to be causing a current issue. Recommend continued monitoring.

- Large suspected lipoma in the right flank area – This could be an infiltrative lipoma or a large

subcutaneous lipoma.

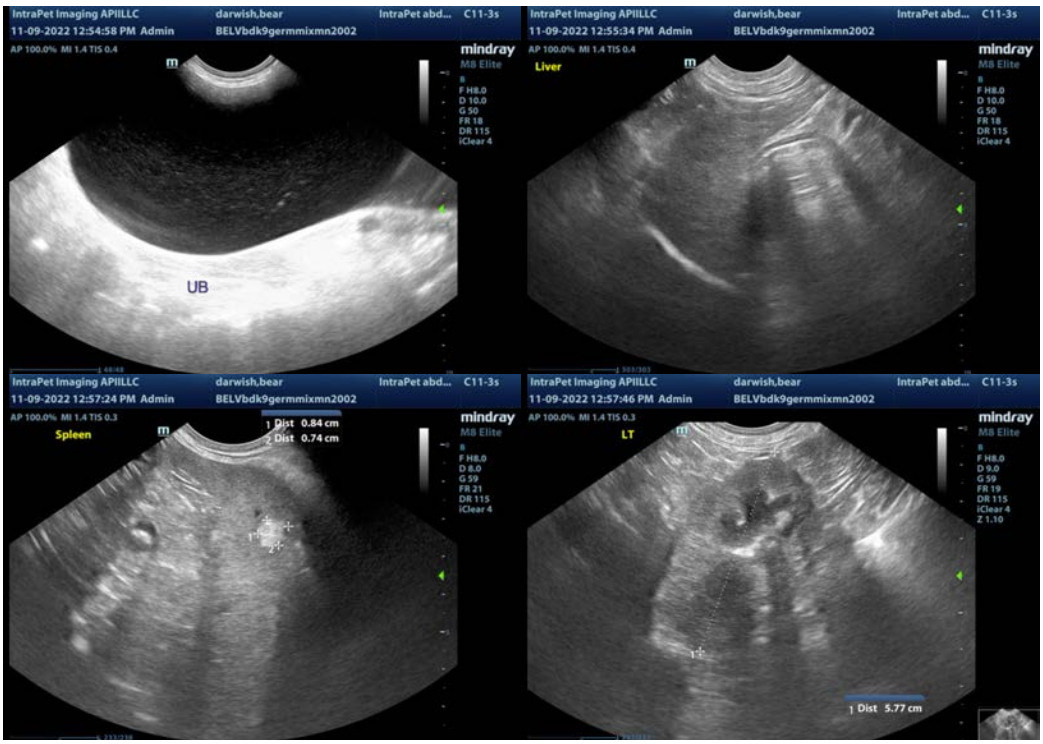
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

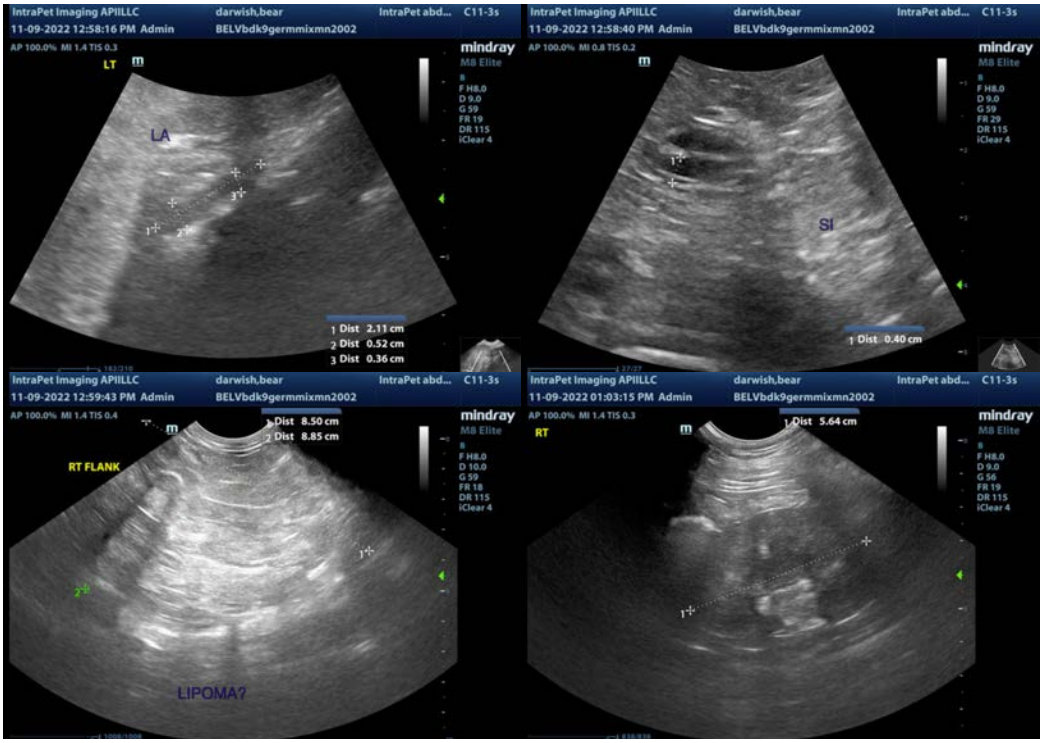
An obvious cause for the difficulty/pain with urination is not observed. The urinary bladder does appear large, which could be an indication of difficulty emptying. If not already done, consider a digital rectal exam to try and further evaluate the prostate, sublumbar lymph nodes, etc., as this was obscured somewhat today by the large size of the urinary bladder. Recommend observing this patient urinating and defecating – is the pattern consistent with reflex dyssynergia? Difficulty with a constant stream? Recommend urinalysis and culture.

Additionally, if this patient is truly having difficulty urinating, it may be necessary to intermittently catheterize. Pay special attention to the ease of the urinary catheter passing – is there any resistance, etc.? – as this could provide useful information. Additionally, try to evaluate if the pain this pet is in is relieved with emptying of the urinary bladder. Lumbar radiographs may be helpful to look for evidence of discospondylitis or lytic lesions in the lumbar spine.

There is a large subcutaneous mass on the right flank region, which I suspect is a lipoma. There is a question as to whether this mass effect is impinging on the abdomen or if there is actual invasion. A contrast CT scan of this region and the pelvic may be helpful. Additionally, you could consider a contrast cystourethrogram, looking for any strictures, stones, mass lesions, etc. Additionally, consider a fine needle aspirate of the subcutaneous flank mass if this has not already been done.

Recommend three view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement.





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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