IMAGING PERFORMED BY

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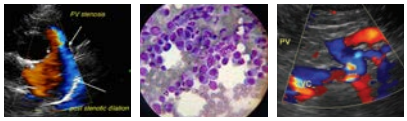

SonoPath
Clinical Sonography & Telecytology
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DATE

10/27/21

PATIENT

Sultan Pascual

SPECIES

Canine

BREED

German Shepherd

SEX

Intact Male

AGE

12/16/18

WEIGHT

76.3 Pounds

INTERPRETED BY

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

HOSPITAL NAME

Animal Emergency Hospital

REFERRING VET

Dr. Roper

INVOICE

26663

PRESENTING CLINICAL SIGNS

Presenting Complaint: Referral **Date:** 10-26-2021 **Notes:** Saturday owner fasted patient for training purposes. Sunday morning patient was lethargic and was not able to keep down water. Patient did not have interest in food. Monday Patient still was vomiting and not interested in food. Patient has not defecated since Saturday. Patient is not on any preventatives. Patient went to rDVM today and liver values were elevated (ALT: 138, ALP: 888 GGT: 13, TBIL: 6.4, GLOB: 4.3, TP:7.6, CREA: 1.4). The CBC showed a monocytosis, RBC increased, Retic low. Patient recently had a diet change from a premade raw diet to dry food (farmina -ocean breeze). This change happened on Monday Patient is not on any preventatives. Patient did get a lepto and lyme vaccine. Patient has had history of vomiting episode last month where the rDVM thought there was a blockage. But symptoms resolved with sq fluids and a medication O described as to prevent vomiting. **Assessment:** DDX: Leptospirosis, Foreign Body, Gastroenteritis, Pancreatitis, Hepatitis, Anaphylactic reaction Mild to moderate but worsening gastric distension on serial x-rays, concern for possible FB.

Current Medications: Potassium Chloride, Pantoprazole, Unasyn, Buprenex, Vitamin B Complex.
Lab Results: liver values were elevated (ALT: 138, ALP: 888 GGT: 13, TBIL: 6.4, GLOB: 4.3, TP:7.6, CREA: 1.4). The CBC showed a monocytosis, RBC increased, Retic low.
Radiographs: Mild to moderate but worsening gastric distension on serial x-rays.
Date of Previous IntraPet Ultrasound: No previous IntraPet scans.
Sedation: not needed
Stat Report: STAT requested

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine. There appeared to be some pinpoint small mineralizations/sandy debris within the urinary bladder lumen. Additionally, there is a foley catheter observed in the trigone of the urinary bladder in an appropriate position. No focal masses are observed. Lack of urine distention and the presence of the foley catheter precludes full evaluation.

The prostate is large in size (3.4 cm x 4.28 cm) but has a regular shape with smooth external margins. The parenchyma is heterogenous but no discrete focal lesions are present. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

The left kidney has a normal shape and size (7.81 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of 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 (7.69 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of 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 0.73 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 0.67 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 heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are primarily anechoic. The cystic and common bile ducts are normal/not visible.

Gastrointestinal
The stomach is severely dilated with fluid and irregular shadowing material most consistent with normal ingesta and gas. 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 layering is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

Much of the small intestine visualized appears relatively normal with intact wall layering, normal curvilinear paths, and normal thickness (jejunum 0.31 cm). Some areas have mild fluid dilation, and there is a focal areas of mixed echogenic soft shadowing debris present in a dilated bowel loop, most consistent with foreign material. Wall layering is maintained. This could be consistent with a partial or complete obstruction, but an overall obstructive pattern is not visualized in the small intestine, although gastric distention is significant.

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
There is a scant amount of free abdominal fluid. No lymphadenopathy. The omentum is of increased echogenicity around the abnormal section of small intestine described.

Other
The left and right testicles are visualized and appear normal.

PRIMARY FINDINGS

- Section of dilated bowel with mixed echogenic shadowing material – could be consistent with non-obstructive foreign material or an early obstruction.

- Gastric fluid distention – correlate with feeding and drinking history. Findings are concerning for possible delayed gastric motility or partial obstruction.

- Heterogeneous liver – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or

other hepatopathy.

- Scant free abdominal fluid with inflamed omentum
- Large prostate – most consistent with prostatomegaly due to benign prostatic hypertrophy or less likely prostatitis. Recommend urinalysis and culture.

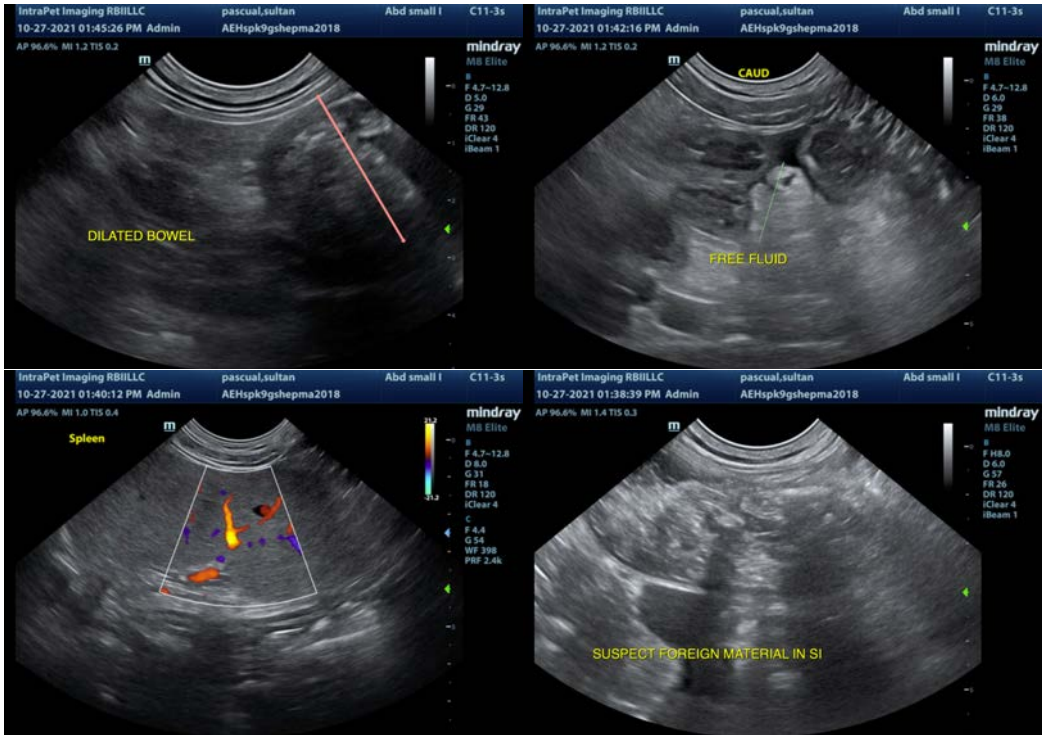
SECONDARY FINDINGS

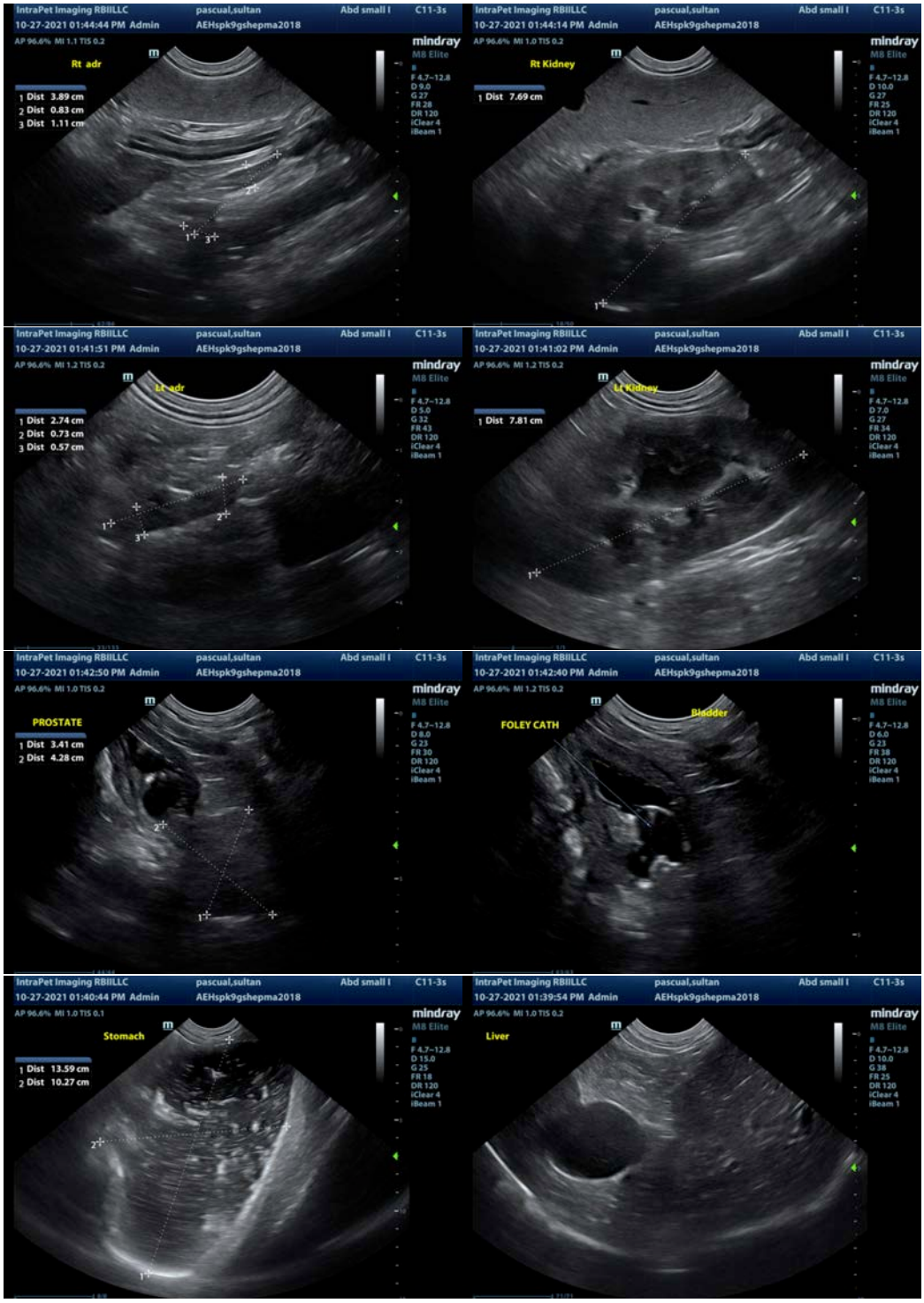
- Foley catheter in urinary bladder – reevaluate when empty for the small mineralizations visualized.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Correlate these findings with abdominal radiographs. There is a very fluid dilated stomach present and some foreign material within the small intestine. This material is not causing a hard shadow, and there is not a severe obstructive pattern in the small intestine, so this could be passing, could be consistent with a partial obstruction, etc.

I also have a difficult time pairing the lab work values with a small intestinal obstruction, unless there is concurrent pancreatitis present or a duodenal obstruction. Alternatey, there could be a concurrent hepatopathy. Consider screening for Leptospirosis and a fine needle aspirate of the liver. If radiographs are supportive of a possible obstruction and exploratory surgery is considered, then obtain a liver biopsy at the time of surgery. A more conservative option would be continued medical therapy while testing for the liver, and serial frequent radiographs with the intent to go to surgery if there is no improvement. If possible, consider sampling the small amount of abdominal fluid present to ensure there is no evidence of peritonitis.

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3 Dist 1.11 cm
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C11-3s
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C11-3s
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mindray
M8 Elite
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C11-3s
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mindray
M8 Elite
PROSTATE
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FOLEY CATH
Bladder
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Abd small I
C11-3s
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mindray
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pascual,sultan
Abd small I
C11-3s
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AEHspk9gshepma2018
mindray
M8 Elite
Liver

The information and recommendations provided are based on the images presented by the referring veterinarian. 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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