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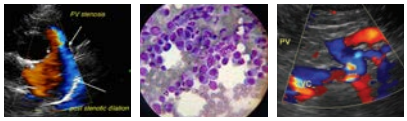

SonoPath

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**DATE**

5/24/22

**PATIENT**

Oliver Cochran

**SPECIES**

Canine

**BREED**

Golden Retriever

**SEX**

Intact Male

**AGE**

5/18/20

**WEIGHT**

65.2 Pounds

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Rachel Brilhart RDMS

**HOSPITAL NAME**

Animal Emergency Hospital

**REFERRING VET**

Dr. Thompson

**INVOICE**

37909

## PRESENTING CLINICAL SIGNS

Oliver is a 2 y/o MI Golden who presents for vomiting and diarrhea - hospitalized medical management, eating well in hospital was discharged - last night was almost normal, more tired, ate dinner normally, defecated solid with some liquid - slept through the night - ate half normal amount in the AM - diarrhea progressed to every 1-2 hours - started regurgitating around 11 am 4-5 times, large volumes

Previous History: post-op exploratory surgery. Notes attached.

Referral for possible FB. Patient started acutely vomiting 2 days ago. Was seen by RDVM this morning and had rads, was admitted to hospital and started on IV fluids, got Cerenia and Famotidine SQ. Patient was going to get fed, then vomited (regurgitated?) through cerenia so repeat rads were taken and sent to radiologist. Radiology report- suspected dietary indiscretion but no obvious obstruction. Patient has continued to regurgitate thick mucus with green slimy material. Owners concerned he ate either a sock or a dryer sheet. Medications: - metronidazole 500 mg PO BID - sucralfate 1 gm TID - Omeprazole 20 mg PO BID - ondansetron 1.5 tablets BID

Current Medications: Baytril, Unasyn, Sucralfate, Cisapride, Gabapentin, Metoclopramide, Proviable. Buprenorphine, Entyce.
Lab Results: See attached.
Radiographs: Xray Abdomen 2 View:No overt FB or obstructive pattern, mild gas dilation of stomach. Xray Thorax 3 view: Heart subjectively normal in size, no overt pneumonia or lower airway changes, mild aerophagia of esophagus
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 moderately distended with anechoic 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, or masses. There is a very small area of dependent hyperechoic debris, most consistent with a small area of sandy debris.

The prostate is slightly enlarged in size (1.07 cm x 2.47 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 (6.79 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 (7.13 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 0.69 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 0.78 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 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 contains minimal luminal contents. The stomach wall appears slightly hypoechoic and thickened with a measurement of 0.90 cm (normal in <0.70 cm) with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is slightly reduced, and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed. Focal thickening could be associated with gastritis and incisional swelling.

The visualized areas of duodenum, jejunum and ileum have a uniform diameter with minimal fluid distension. Wall appears subjectively, mildly increased. Bowel loops follow a typical curvilinear path with distinct wall layering. Jejunum wall measured 0.38 cm. Duodenum wall measured 0.57 cm. Visualized peristalsis appears appropriate. There is mild proximal fluid dilation of the duodenum with a small amount of non-obstructive shadowing material and mild corrugation in this area, which is associated with the right limb of the pancreas. Suspect proximal duodenitis and ileus secondary to pancreatic inflammation and general gastroenteritis.

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 prominent and mottled compared to the surrounding isoechoic mesentery. There is a small area focally in the right limb of the pancreas adjacent to the duodenum that appears focally more hypoechoic, and there appears to be associated duodenitis.

### *Free Abdomen*

There is a scant triangle of free fluid visualized near the urinary bladder. Mesenteric lymph nodes are visible, but do not appear hypoechoic and enlarged. A caudal mesenteric lymph node is visualized at 1.09 cm x 2.78 cm. A small focal, hyperechoic node is visualized associated with the stomach measuring 0.83 cm. The omentum is somewhat increased in echogenicity in the cranial abdomen around the stomach and pancreas.

### *Other*

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

Both testicles were imaged and no significant lesions were visualized.

The area of the incision is visualized and there is normal associated edema and swelling visualized in this area.

## PRIMARY FINDINGS

- Large, slightly hyperechoic prostate – Prostatic changes are most consistent with benign prostatic hyperplasia. Other differentials include bacterial prostatitis and prostatic neoplasia. However, given the lack of lower urinary tract symptoms, these differentials are considered less likely in this patient.

- Mildly heterogeneous pancreas with focal hypoechoic region in the right limb near the duodenum – findings are suggestive of pancreatic inflammation and associated duodenitis.

- Mild thickening of the gastric wall with reduced layering – most consistent with focal gastritis and inflammation (possibly secondary to incisional swelling, etc.).

- Mild focal thickening and corrugation of the proximal duodenum – most consistent with focal duodenitis/enteritis.

- Prominent cranial abdominal lymph node – The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

## SECONDARY FINDINGS

- Small/subtle area of dependent sandy debris in the urinary bladder – recommend urinalysis and culture.

- Mild edema and swelling in the area of the incision. This is normal for a post-operative patient.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There is no evidence of a generalized obstructive pattern. There is a focal area of the right limb of the pancreas, which does appear prominent, hypoechoic and mottled. The duodenum in this area is mildly dilated and corrugated, so this area is most consistent with focal pancreatitis/duodenitis.

Additionally, the gastric wall is thickened and hypoechoic. This could be associated with incisional swelling or preoperative gastritis. Your biopsies should be helpful in differentiating this. Correlate these findings with abdominal radiographs and PLI evaluation. Consider starting prokinetic medications (if not already done), and continued treatment for gastroenteritis/pancreatitis.

Additionally, consider the possibility of concurrent esophagitis and therapy for that as well. If symptoms persist, you could consider a barium swallow to evaluate the esophagus, and transit time of barium outside of the stomach, or upper GI endoscopy to evaluate for esophagitis, the gastric lining, etc.


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cochran,oliver
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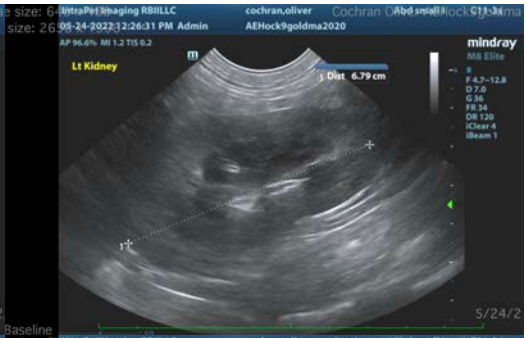
AEHock9goldma2020
mindray
Bladder
PROSTATE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IntraPet Imaging RBIILLC
cochran,oliver
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mindray
Lt adr
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2 Dist 0.69 cm
3 Dist 0.63 cm


IntraPet Imaging RBIILLC
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mindray
MES ROOT
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2 Dist 1.09 cm
LN


IntraPet Imaging RBIILLC
cochran,oliver
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AEHock9goldma2020
mindray
RT
1 Dist 7.13 cm


IntraPet Imaging RBIILLC
cochran,oliver
05-24-2022 12:23:35 PM Admin
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mindray
RT ADR
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2 Dist 0.78 cm
3 Dist 0.76 cm


IntraPet Imaging RBIILLC
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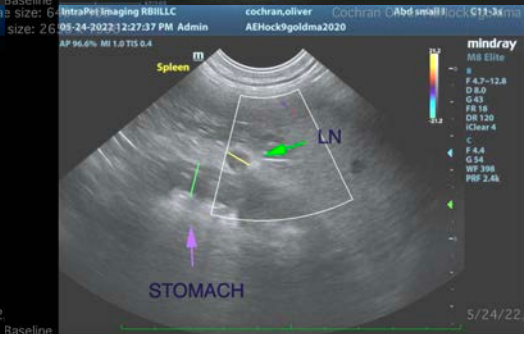
mindray
Liver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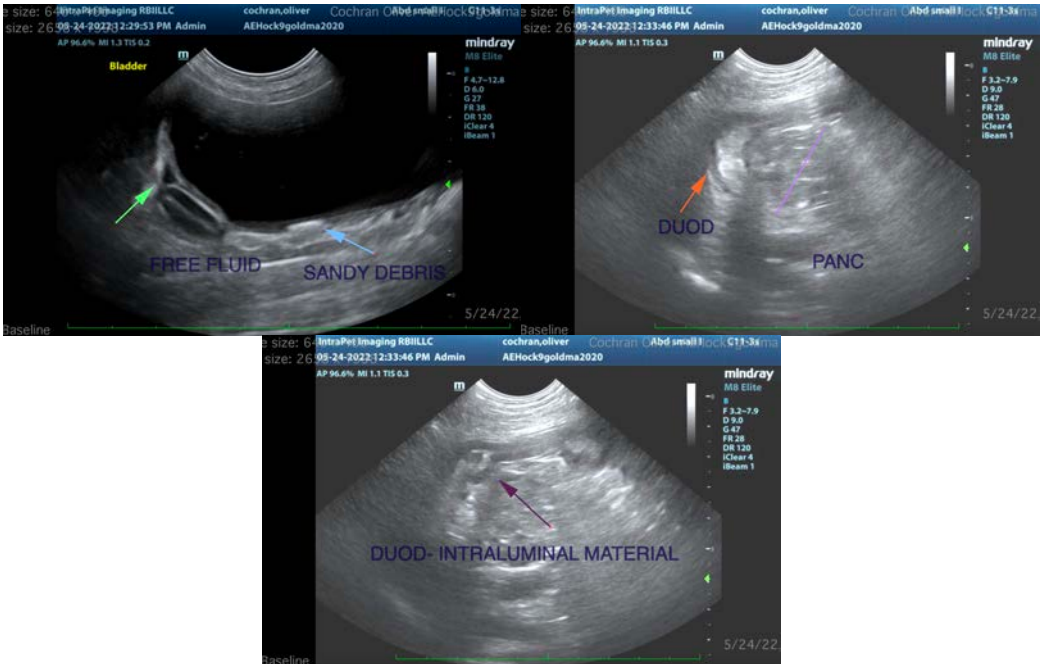
cochran,oliver
05-24-2022 12:27:37 PM Admin
AEHock9goldma2020
mindray
Spleen
LN
STOMACH




**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.

Kathleen Sennello DVM,MS, Diplomate ACVIM (Small animal Internal Medicine)
kathleen.sennello@sonopath.com