



**PATIENT**

Joy Hedeem

**SPECIES**

Canine

**BREED**

Shih Tzu

**SEX**

Spayed female

**AGE**

5 years

**WEIGHT**

15.75 lbs

**PRESENTING CLINICAL SIGNS**

History: Joy presented on ER for inappetence, labored breathing and diarrhea. Ate a small amount of dried chicken treats 6/12 AM-refused to eat anything since Drank a small amount 6/12-refused to drink anything today. Urinated today, intermittent diarrhea recently-stools have been more formed for the last several days but then she had one episode of liquid brown diarrhea today Breathing continues to appear labored, mostly when she is laying on her belly or sleeping-abdomen appears distended Energy level is very low today No recent vomiting Sneezing recently-sounds a bit congested today- small amount of clear discharge from her nose, HX of seasonal nasal congestion and sneezing No coughing Life style: Lives in household with 4 other dogs and 3 cats Current diet: Carne Asada with cheese, beef liver, Nutro kibble, "chicken chips" Quiet Hydration Dry mucous membranes - Estimate 5-7% dehydration Attitude Anxious - Slightly nervous but overall cooperative for exam. Head Nose Sneezing, congestion, discharge - Sneezing observed at home today with small amount of clear nasal discharge and congestion --> no symptoms observed during exam Dyspnea - Mild increase in respiratory rate and effort --> lungs auscult clear, no murmur Abdomen General findings Abdominal distension - Moderate Abdominal palpation Abdomen soft and non-painful. Digestive Stool Diarrhea - Liquid diarrhea today ABNORMAL Labratory Findings CBC: WBC 9,620, PLT 547, PCV 43%, TS 7g/dL Chemistry profile: ALP 337, GLU 120 --> r/o underlying hepatobiliary disease Current Medications Entyce 22.5mg PO today, Diigel 1ml PO today, 2 doses given of the following meds: Cerenia 16mg: 1 q 24hrs-dose due tonight, Galliprant 20mg 1 tab q 24 hrs-dose due tonight if eating, Provable Capsules: 1 cap q 24hrs-dose due tonight Radiographic Findings 3 view abdominal/thoracic radiographs: mild diffuse broncho interstitial pattern (r/o age-related), moderate hepatomegaly, aerophagia, bilateral stifle and hip arthritis, small bladder. Submitted images for standard AIS radiology review. Radiographs revealed excessive gastrointestinal gas pattern. Pectus excavatum and minor, right-sided cardiac enlargement.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The pelvic urethra was imaged 3.0 cm beyond the cystourethral junction and appeared normal. The ureters were not visible which is normal. No uroliths or sediment were visualized and anechoic urine was present. No evidence of inflammatory or neoplastic changes was noted. Ureteral papillae were normal.

The **kidneys** revealed normal size and structure, corticomedullary definition and ratio for this age. The cortices presented largely uniform texture with normal echogenic relationship to liver and spleen. Medullary structure differed distinctly from the cortex and no evidence of pelvic dilation was present. The capsules were acceptably uniform without significant irregularities. Slight, early, pinpoint mineralization was noted in the kidneys. The right kidney measured 4.86 cm. The left kidney measured 4.72 cm.

**Adrenal Glands**

Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The left

**INTERPRETED BY**

Eric Lindquist, DMV,  
DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Sara Hansen

**HOSPITAL NAME**

VCA Salem AH

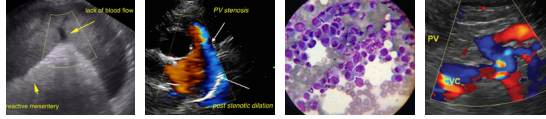
**REFERRING VET**

Dr. Hovenden

**DATE**

6/12/23

**Invoice**



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adrenal gland measured 1.0 x 0.49 cm at the caudal pole and 0.44 cm at the cranial pole. The right adrenal gland measured 1.72 x 0.44 cm at the caudal pole and 0.53 cm at the cranial pole.

**Spleen**

The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes was noted.

**Liver**

The **liver** revealed a hyperechoic nodule in the right cranial liver. The nodule was non-disruptive and measured 3.6 cm. This is most consistent with hyperplasia and a minor potential for emerging carcinoma or other neoplastic event. The gallbladder presented acceptably thin walls with primarily anechoic content. The cystic and common bile ducts were normal. No pathological hepatic lymphadenopathy was evident. No overt structural evidence of inflammatory, infiltrative or regenerative pathology was evident.

**Gastrointestinal**

The pylorus was free of evident pathology. The pyloric antrum was mildly thickened with hypertrophied muscularis. Gastric wall thickness measured up to 1.5 cm. The small intestine and colon were unremarkable. Some echogenic remodeling was noted in the mucosa.

**Pancreas**

The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Pancreatic duct and capsular contour were acceptably normal and parenchyma respected normal curvilinear patterns. No overt evidence of active inflammatory or neoplastic disease was noted.

**ULTRASONOGRAPHIC FINDINGS**

Gastritis pattern, possibly ulcerative.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

A clinical trial of the following may prove effective or endoscopy to obtain mucosal biopsies. Recheck sonogram is recommended in 10-14 days if the patient is improving and to ensure adequate resolution.

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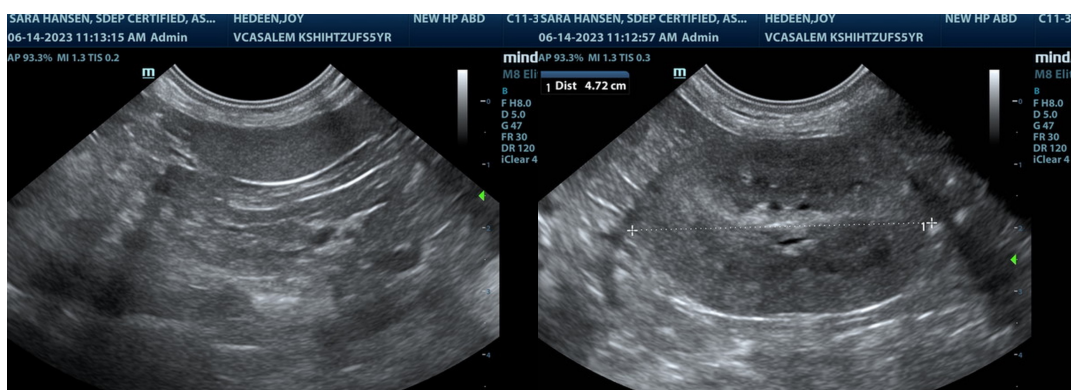
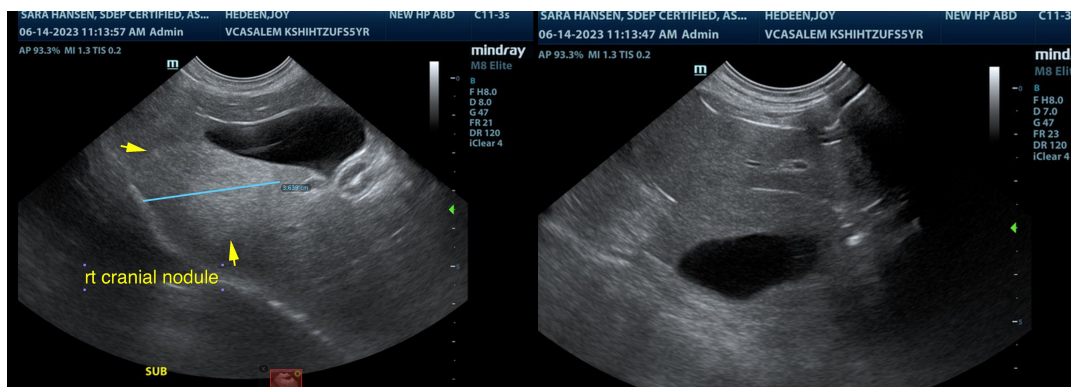
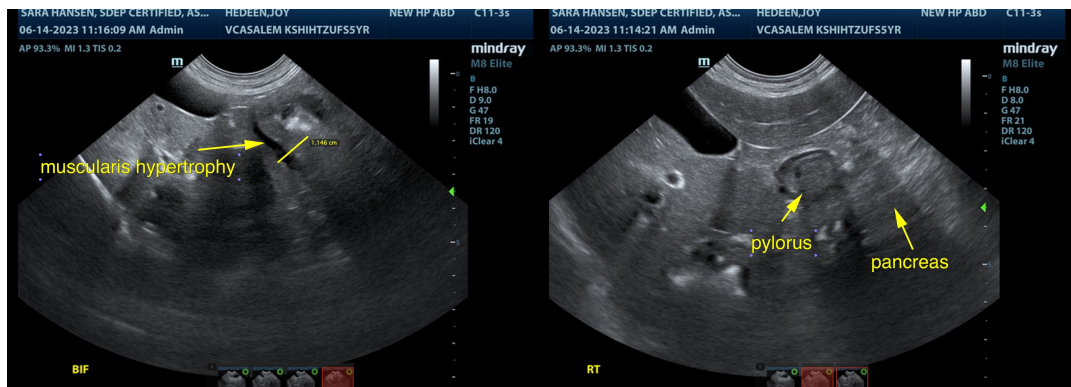
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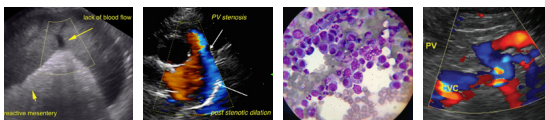
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**Helicobacter/Gastritis protocol**

A clinical trial of **Zithromax (Dogs: 5-10 mg/kg p.o. q24h**. May increase dosing interval to q48h after 3-5 days of treatment), **Metronidazole (10-20 mg/kg p.o. b.i.d.)**, **Pepcid (0.5-1 mg/kg s.i.d.)** and **Sucralfate (0.5-2 g/dog PO)** or **Omeprazole (1 mg/kg p.o. s.i.d.)** over the next 3 weeks along with a **novel-protein or hydrolyzed diet** with slurry feeding b.i.d./t.i.d. over the next 2-4 days and then increase to canned diet bid. Dry food should be avoided over the next 4 weeks. A recheck sonogram to assess GI improvement or progression would be ideal in 4 weeks.





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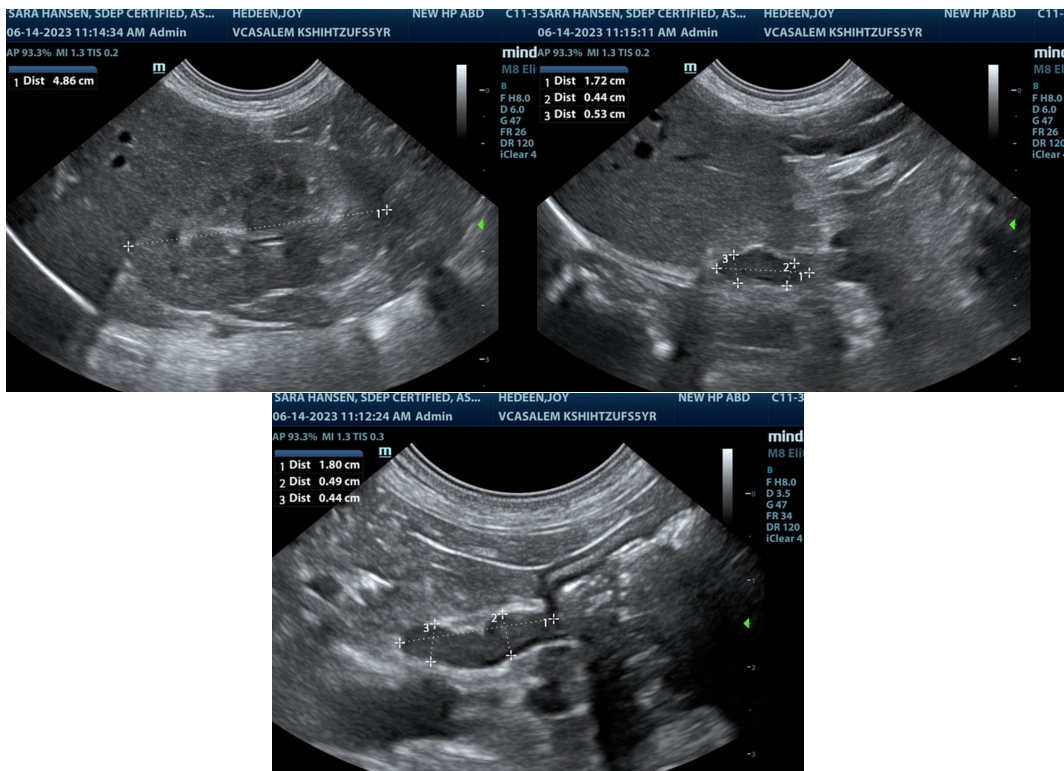
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## Invoice



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.

Eric Lindquist, DMV, DABVP, Cert. IVUSS

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