



PATIENT PRESENTING CLINICAL SIGNS

Asta Olsen History: suspect pyelonephritis, hepatopathy

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

SPECIES

Canine

Urinary System

The urinary bladder wall is normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended with mostly anechoic urine. No masses, inflammatory changes or calculi are observed. The region of the trigone and the visible portion of the proximal urethra are normal.

BREED

Yorkie

The left kidney is normal size (4.13 cm in length); normal shape and architecture with smooth peripheral margins. The cortex is hyperechoic. There is a normal 1:3 cortex to medulla ratio with poor corticomedullary distinction. Mild pyelectasia is present (0.26 cm in the longitudinal plane). There is no evidence of nephroliths, infarcts or hydroureter. A few small cortical cysts are seen. Renal vasculature is normal.

SEX

Female, spayed

The right kidney is normal size (4.60 cm in length); normal shape and architecture with smooth peripheral margins. The cortex is hyperechoic. At least one small cortical cyst is seen. There is a normal 1:3 cortex to medulla ratio with moderate loss of corticomedullary distinction. Trace pyelectasia is present. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

AGE

13 Yrs.

Adrenal Glands

WEIGHT

14 lbs.

The left adrenal gland is normal size (0.53 cm at cranial pole) (0.53 cm at caudal pole) (1.64 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

INTERPRETED BY

Andrea Nicastro, DVM,
Diplomate ACVIM
(Small Animal Internal
Medicine)

The right adrenal gland is mildly enlarged (1.18 cm at cranial pole) (0.67 cm at caudal pole); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

IMAGING PERFORMED BY

Jenn

The spleen is normal in size (1.10 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

HOSPITAL NAME

Rockaway

Liver

The liver is subjectively normal in size with normal curvilinear peripheral contours. The parenchyma is hypoechoic relative to the spleen and subtly mottled in appearance. There is an increase in portal markings. A 0.52 cm anechoic cyst is observed in the caudate process. Vascular is of normal volume with no evidence of congestion. The gall bladder lumen is moderately distended. The wall is overall normal in thickness with a slight "double-walled" effect. A small amount of echogenic debris is adhered to the luminal surface. The cystic and common bile ducts are normal/not seen.

REFERRING VET

Dr. Maniar

Gastrointestinal

INVOICE

14432

The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is not distended. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. The small intestinal lumen is not dilated. The small intestinal wall

DATE

1/11/23



PATIENT

thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. No obstructive disease is noted.

Asta Olsen

Pancreas

SPECIES

The left limb of the pancreas is visible with normal curvilinear peripheral contours. The parenchyma is slightly hypoechoic relative to surrounding omental fat and slightly mottled in appearance. The pancreatic duct is visible but not overtly dilated. There is no evidence of peripancreatic inflammation or effusion.

Canine

BREED

Free Abdomen

Yorkie

The mesentery in the cranial abdomen is mildly hyperechoic. Trace free fluid is observed. The abdominal lymph nodes are normal/not visible.

SEX

Female, spayed

ULTRASONOGRAPHIC FINDINGS

AGE

Primary Findings:

13 Yrs.

- The hepatic parenchymal changes could be consistent with an inflammatory hepatopathy (i.e., bacterial cholangiohepatitis, chronic hepatitis), Leptospirosis, hepatotoxicosis, infiltrative neoplasia (less likely), other hepatopathy.
- The gallbladder wall changes may be a normal variant for this patient or may be secondary to cholecystitis, low oncotic pressure, increased hydrostatic pressure, anaphylaxis (less likely), other.
- Bilateral non-specific degenerative renal changes. The bilateral pyelectasia may be secondary to pyelonephritis, age-related remodeling, fluid therapy (if applicable) or some combination thereof.
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- Cranial peritonitis, the cause of which is unclear. It may be secondary to hepatic inflammation, pancreatitis, other.

WEIGHT

14 lbs.

INTERPRETED BY

Andrea Nicastro, DVM,
Diplomate ACVIM
(Small Animal Internal
Medicine)

**IMAGING
PERFORMED BY**

Jenn

HOSPITAL NAME

Rockaway

Secondary Findings:

- Borderline right adrenomegaly

REFERRING VET

Dr. Maniar

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

INVOICE

14432

- Depending on the degree of liver enzyme elevations, Leptospirosis testing (i.e., blood and urine PCR, serology) should be considered along with hepatic tissue sampling (i.e., fine needle aspirate or biopsies (laparoscopic or surgical)). If biopsies are pursued, aerobic and anaerobic bile cultures should be obtained, and hepatic copper quantitation performed. Clotting times should be performed prior to any tissue sampling. Thoracic radiographs are also recommended prior to anesthesia.

DATE

1/11/23



PATIENT

Asta Olsen

- Regarding the renal changes, a urine culture and sensitivity is recommended. If azotemia is present, also consider a baseline blood pressure measurement and UPC (if proteinuria is present in the absence of infection).
- While awaiting test results, symptomatic care is recommended.

SPECIES

Canine

BREED

Yorkie

SEX

Female, spayed

AGE

13 Yrs.

WEIGHT

14 lbs.

INTERPRETED BY

Andrea Nicastro, DVM,
Diplomate ACVIM
(Small Animal Internal
Medicine)

**IMAGING
PERFORMED BY**

Jenn

HOSPITAL NAME

Rockaway

REFERRING VET

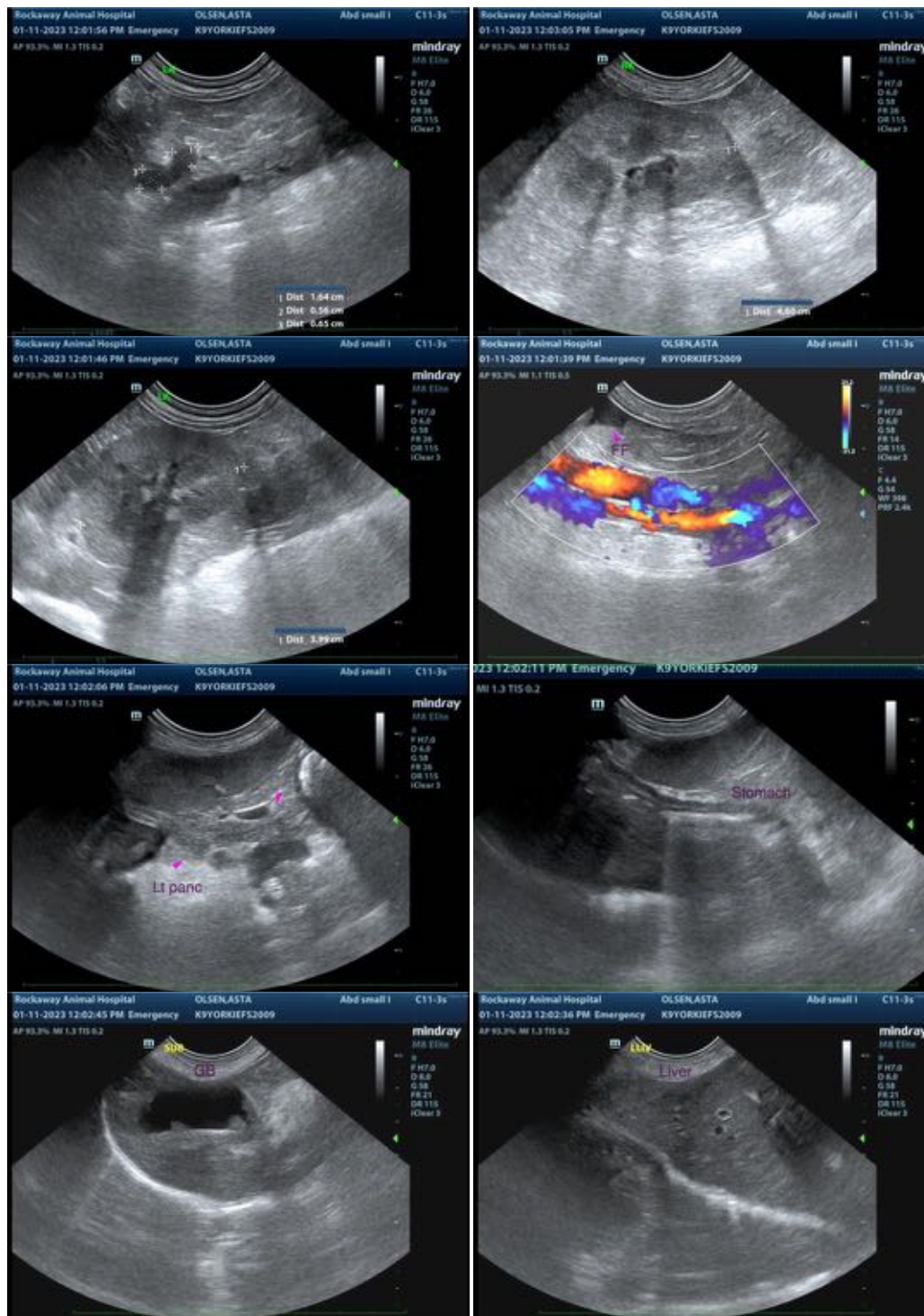
Dr. Maniar

INVOICE

14432

DATE

1/11/23





PATIENT

Asta Olsen

SPECIES

Canine

BREED

Yorkie

SEX

Female, spayed

AGE

13 Yrs.

WEIGHT

14 lbs.

INTERPRETED BY

Andrea Nicastro, DVM,
Diplomate ACVIM
(*Small Animal Internal
Medicine*)

**IMAGING
PERFORMED BY**

Jenn

HOSPITAL NAME

Rockaway

REFERRING VET

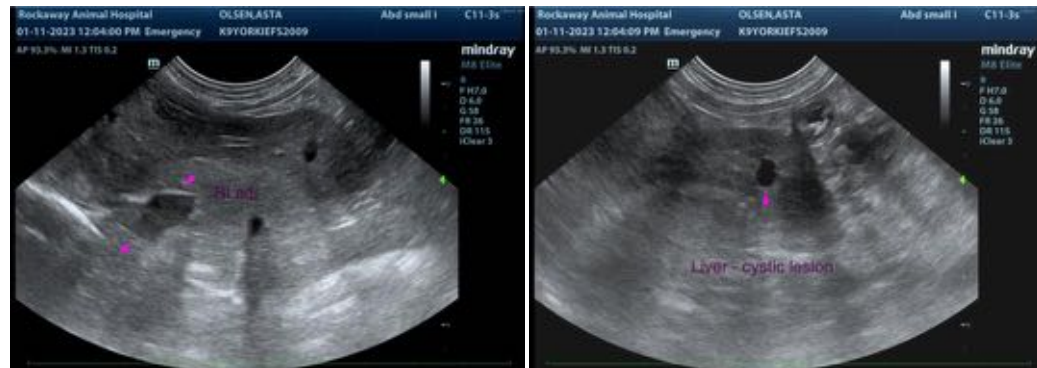
Dr. Maniar

INVOICE

14432

DATE

1/11/23



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.

Andrea Nicastro, MPH, DVM, Diplomate DACVIM (Small Animal Internal Medicine)
info@SonoPath.com