



PATIENT

Princess Cruz

SPECIES

Canine

BREED

Chihuahua

SEX

Spayed Female

AGE

17 years

WEIGHT

2.9 lbs

INTERPRETED BY

Lisa Carioto, DVM,
DVSc, Diplomate
ACVIM

IMAGING PERFORMED BY

Kelly Vazquez, CVT

HOSPITAL NAME

Animal General on
Hudson

REFERRING VET

Dr. Lang

INVOICE

30933

DATE

6/8/22

PRESENTING CLINICAL SIGNS

History: Recheck ultrasound. History of azotemia and elevated liver enzymes. Last ultrasound performed on 4/5/22; findings showed possible pyelonephritis, pancreatitis, bilateral adrenomegaly, and hepatopathy.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is adequately filled. The wall is smooth and regular. There is no evidence of sediment, cystoliths, polyps or a mass. No obvious abnormalities are observed with the trigone, however, an in-depth evaluation of the proximal urethra is not available. One of the ureteral papillae is visualized and is within normal limits.

Kidneys

The **left** kidney measures 2.49 cm. The capsule is smooth. A marked improvement is observed in comparison to the previous ultrasound. A mild loss of the normal definition of the cortico-medullary junction is present. Nephroliths are not visualized. Pyelectasia is no longer present and the surrounding mesentery is not hyperechoic. Blood flow is increased.

The **right** kidney measures 2.04 cm. The capsule is smooth. The cortex is mildly to moderately hyperechoic. A moderate to severe loss of the normal definition of the cortico-medullary junction is present. Nephroliths are not visualized. Pyelectasia is still present (longitudinal view = 2.18 mm), however, there is a marked decrease in severity. The surrounding mesentery is not hyperechoic. Blood flow is mildly decreased.

Aortic bifurcation/trifurcation

No abnormalities observed.

Adrenal Glands

***Both have decreased significantly in size and are now considered small, thin and flatter than what is considered normal.** No abnormalities are noted with the glands' echogenicity or echotexture. The phrenico-abdominal veins and surrounding vasculature and mesentery are unremarkable.

The **left** adrenal gland measures 0.10 cm at the cranial pole, 0.12 cm at the caudal pole and 0.76 cm in length.

The **right** adrenal gland measures 0.20 cm at the cranial pole, 0.17 cm at the caudal pole and 0.91cm in length.

Spleen

The spleen is within normal limits in size, architecture, echotexture, and echogenicity. The capsule is smooth. No abnormalities are observed with its vasculature, i.e. congestion and thrombi are not identified.



PATIENT

Princess Cruz

Liver

SPECIES

Canine

There are no obvious signs of hepatomegaly. Its borders are smooth, but mildly rounded. A diffuse, mildly coarse or granular echotexture is observed. Age-related changes are noted, i.e. signs suggestive of nodular hyperplasia. The encapsulated cystic structure is visualized and stable. It is similar in size compared to Princess' original exam: 1.23 cm x 1.63 cm (cf 1.06 cm in diameter x 1.60 cm in length). No obvious abnormalities are noted with the hepatic vessels.

BREED

Chihuahua

The gallbladder wall is within normal limits in thickness and echogenicity. A moderate amount of echogenic material is present within the GB. The portions of the cystic and/or common bile ducts observed are not dilated or tortuous, i.e. there are no signs of an obstruction.

SEX

Spayed Female

Gastrointestinal

AGE

17 years

The gastric wall is within normal limits in thickness and the wall layers are much better defined today. However, the individual wall layers, specifically the mucosa, muscularis, submucosa are, subjectively, more prominent. No obvious abnormalities are observed with peristalsis today.

WEIGHT

2.9 lbs

The muscularis of the lower esophageal sphincter appears mildly prominent. There are no signs of neoplasia.

Jejunum: Fogging and stippling of the mucosa are present. Both the mucosa and submucosa also appear somewhat prominent, however, wall thickness is within normal limits. These findings are similar to the previous ultrasound, but *not as severe*. Furthermore, the ileus is no longer present, and abnormally dilated loops of bowel are not observed.

INTERPRETED BY

Lisa Carioto, DVM,
DVSc, Diplomate
ACVIM

The transverse colon is filled with gas and ingesta. Peristalsis is within normal limits today.

The colonic wall is not thickened and mural detail is considered normal.

There are no obvious signs of a mass, foreign body or an obstruction in the gastrointestinal tract.

IMAGING PERFORMED BY

Kelly Vazquez, CVT

Pancreas

The pancreas has a mildly coarse echotexture, and is mildly heterogeneous. It consists of hypoechoic nodules of variable size and pinpoint to punctate hyperechoic foci scattered throughout the parenchyma. These changes are suggestive of nodular hyperplasia and fibrosis, respectively. Fibrosis may be an age-related change, secondary to previous episodes of pancreatitis, mineralization and amyloid deposition. There are no signs of active pancreatitis today or evidence of neoplasia.

HOSPITAL NAME

Animal General on
Hudson

REFERRING VET

Dr. Lang

Other

Lymph nodes

INVOICE

30933

No abnormalities are observed.

Abdominal effusion is not visualized.

DATE

6/8/22

ULTRASONOGRAPHIC FINDINGS



PATIENT	A marked improvement is observed on Princess' abdominal ultrasound today. However, some subtle abnormalities still remain, for example:
Princess Cruz	
SPECIES	
Canine	<ul style="list-style-type: none"> Kidneys: chronic renal disease, and age-related degenerative changes are present. The pyelectasia may be due to ongoing inflammation and/or infection, however, it may also be due to an individual experiencing pu/pd due to chronic renal disease. the increased blood flow noted with the left kidney may be compensatory due to fibrosis of the right, however, systemic hypertension must be considered.
BREED	
Chihuahua	<ul style="list-style-type: none"> Pancreas: Pancreatitis appears to have resolved. Age-related changes, including fibrosis are noted. Liver: Age-related nodular regeneration. Although differential diagnoses for the cystic structure include both a cystadenoma and cystadenocarcinoma, a benign cystadenoma is considered more likely.
SEX	
Spayed Female	<ul style="list-style-type: none"> Gallbladder: Gallbladder sludge is usually clinically insignificant. An evaluation of Princess' history is suggested to exclude signs of gastroesophageal reflux disease (GERD), particularly with the prominent wall layers of the lower esophageal sphincter (LES) and stomach. Sonographic signs of cholecystitis are not appreciated.
AGE	
17 years	<ul style="list-style-type: none"> Gastrointestinal tract: The findings of the prominent wall layers of the gastrointestinal (GI) and LES, as well as the fogging and stippling, are somewhat subjective. Although these findings may not be clinically significant, they have been associated with GI inflammation, therefore, an underlying chronic enteropathy, for example, inflammatory bowel disease, cannot be excluded. Evaluation of Princess' diet, history of GERD, pica, vomiting and diarrhea, etc. is suggested.
WEIGHT	
2.9 lbs	<ul style="list-style-type: none"> Adrenal glands: Both adrenal glands are significantly decreased in size compared to her previous exam. Their enlargement at the time of the original exam was attributed to adrenal hyperplasia secondary to stress or chronic illness (or possible subclinical hyperadrenocorticism). Their significant decrease in size and flattened shape may be due to the administration of exogenous steroids, relative hypoadrenocorticism or emerging hypoadrenocorticism.
INTERPRETED BY	
Lisa Carioto, DVM, DVSc, Diplomate ACVIM	
IMAGING PERFORMED BY	<u>INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS</u>
Kelly Vazquez , CVT	The following are suggested/recommended
HOSPITAL NAME	Arterial blood pressure.
Animal General on Hudson	If antibiotics have not been discontinued, please continue for an additional 2 weeks. If discontinued, do not restart, but monitor Princess' appetite, activity level, water consumption. Restart immediately if any changes occur (even if very subtle).
REFERRING VET	
Dr. Lang	Urinalysis and urine cultures every few months due to possible predisposition to recurrence of pyelonephritis (age).
INVOICE	
30933	Basic hygiene (cleaning of vulva/perivulvar area) once a day to decrease risk of recurrence of urinary tract infections.
DATE	
6/8/22	Low fat, easily digestible diet due to previous episodes of pancreatitis. Monitor for signs of sarcopenia due to her age.



PATIENT

Princess Cruz

If Princess has not received steroids (topically or orally), she should be monitored for signs of hypoadrenocorticism. The latter may occur following an extremely stressful event. If in doubt, a baseline (resting) serum cortisol concentration may be performed.

SPECIES

Canine

BREED

Chihuahua

SEX

Spayed Female

AGE

17 years

WEIGHT

2.9 lbs

INTERPRETED BY

Lisa Carioto, DVM,
DVSc, Diplomate
ACVIM

IMAGING PERFORMED BY

Kelly Vazquez, CVT

HOSPITAL NAME

Animal General on
Hudson

REFERRING VET

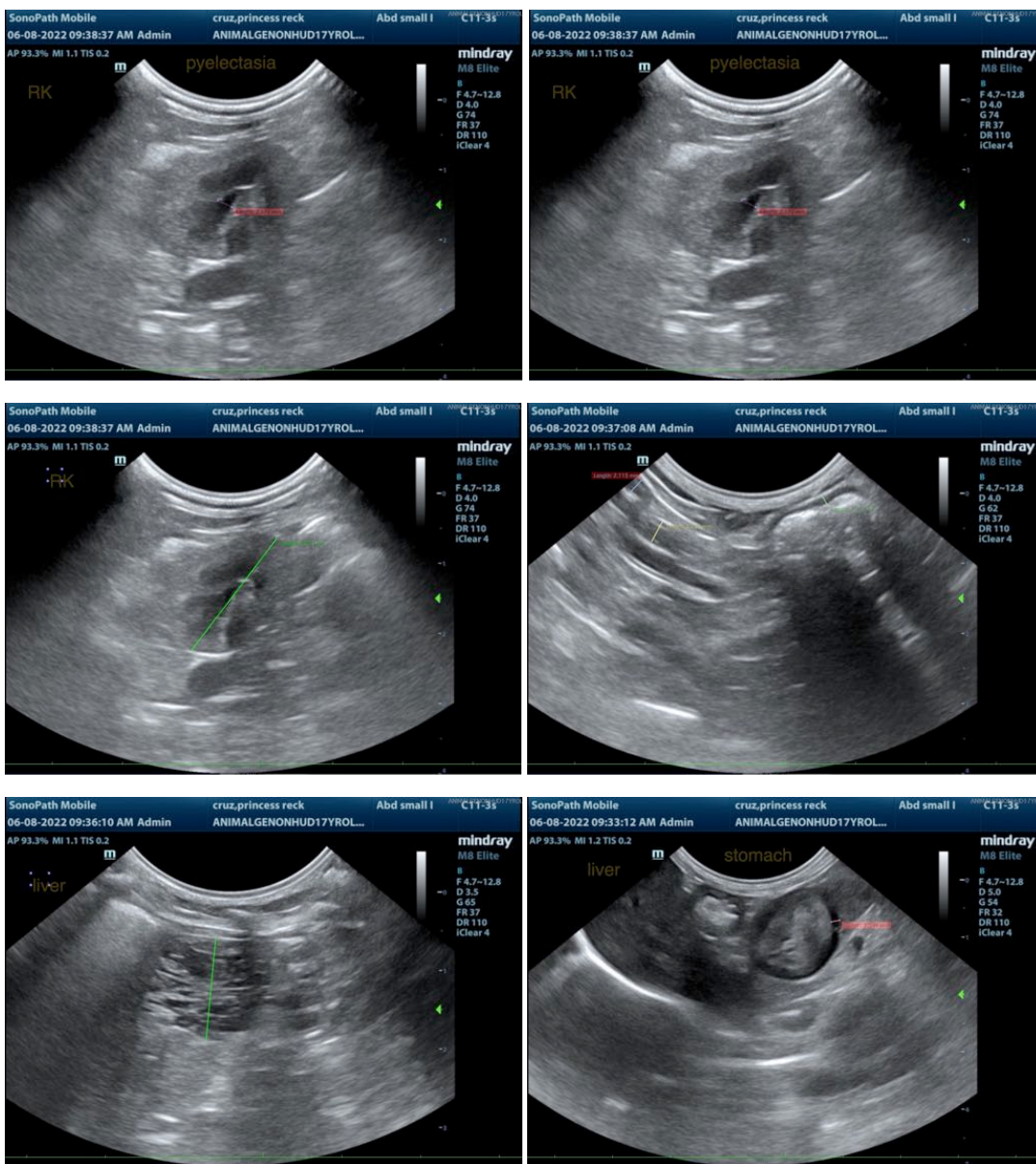
Dr. Lang

INVOICE

30933

DATE

6/8/22





PATIENT

Princess Cruz

SPECIES

Canine

BREED

Chihuahua

SEX

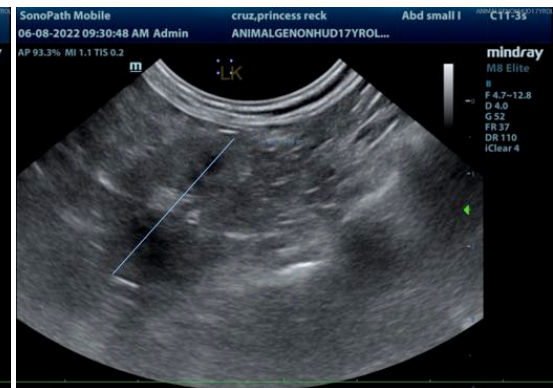
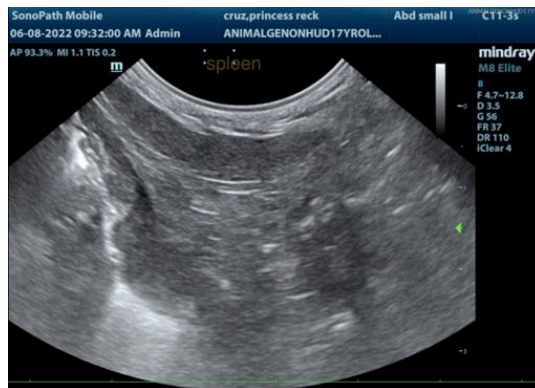
Spayed Female

AGE

17 years

WEIGHT

2.9 lbs



INTERPRETED BY

Lisa Carioto, DVM,
DVSc, Diplomate
ACVIM

**IMAGING
PERFORMED BY**

Kelly Vazquez, CVT

HOSPITAL NAME

Animal General on
Hudson

REFERRING VET

Dr. Lang

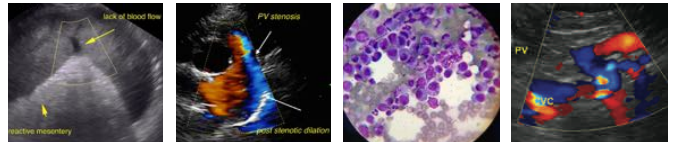
INVOICE

30933

DATE

6/8/22





PATIENT

Princess Cruz

SPECIES

Canine

BREED

Chihuahua

SEX

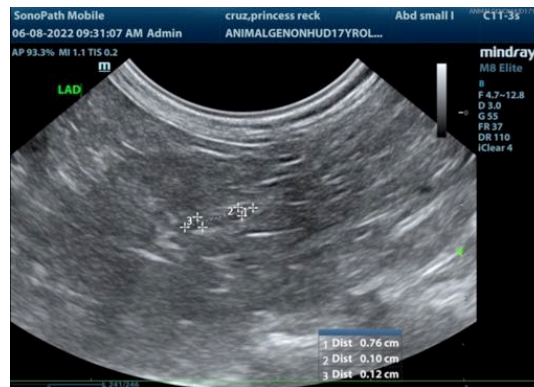
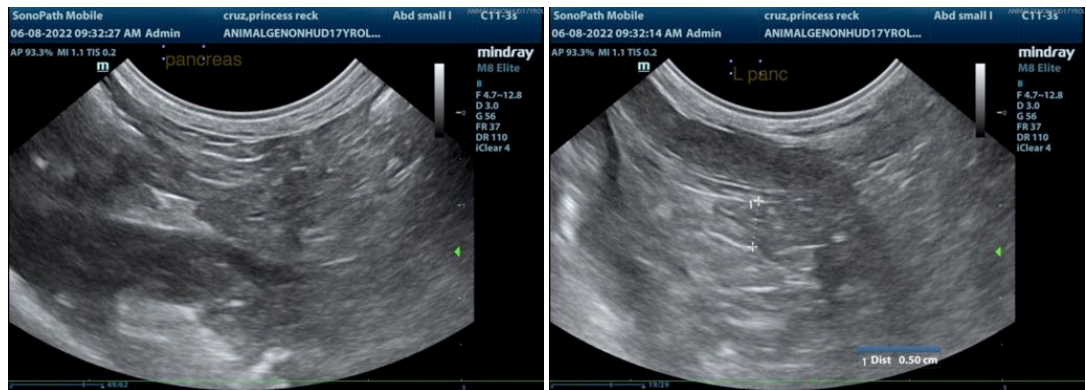
Spayed Female

AGE

17 years

WEIGHT

2.9 lbs



INTERPRETED BY

Lisa Carioto, DVM,
DVSc, Diplomate
ACVIM

**IMAGING
PERFORMED BY**

Kelly Vazquez, CVT

HOSPITAL NAME

Animal General on
Hudson

REFERRING VET

Dr. Lang

INVOICE

30933

DATE

6/8/22

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.

Lisa Carioto, DVM, DVSc, Diplomate ACVIM

Lisa.Carioto@sonopath.com