



## PATIENT

Sylvie Chung

## SPECIES

Feline

## BREED

DSH

## SEX

Spayed Female

## AGE

4 Years 5 Months

## WEIGHT

4.58 kg

## INTERPRETED BY

Eric Lindquist, DMV,  
DABVP(CFM), Cert.  
IVUSS

## IMAGING PERFORMED BY

Dr. Mariusz  
Chmielinski DVM

## HOSPITAL NAME

Apex Veterinary  
Services LTD

## REFERRING VET

Alpine 24/7 ER Doctor

## INVOICE

13737

## DATE

02/12/26

## PRESENTING CLINICAL SIGNS

- Vomiting, decreased appetite, lethargy. One vomiting episode last week and one the morning of presentation. Owner reports abnormal hiding behavior. History of suspected feline asthma with increasing cough/wheezing frequency

Abnormal PE/Chem/CBC/UA Results: QAR, 5–6% dehydrated, Temp 39.4°C (mild hyperthermia), HR 220 bpm, Abdomen tense and uncomfortable, No murmur; lungs clear, BCS 6/9 Bloodwork • Creatinine 246 µmol/L (elevated) → increased to 281 µmol/L later • BUN high-normal (11.9) • Stress hyperglycemia • No marked inflammatory leukogram reported Urinalysis • USG 1.037 initially • Cocci bacteria on sediment • Mild hematuria • Urine culture submitted Radiographs • Thorax: Mild bronchial pattern; otherwise unremarkable • Abdomen: Left renomegaly; right kidney small (chronic finding) ProBNP • Snap test equivocal/weakly positive

## ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm)	LVIDd (cm)	LVWd (cm)	FS (%)	EF (%)
NORMAL PARAMETER	-----	150-240	0.3-0.6	1.0-2.1	0.25-0.6	35-67	80-100
PATIENT	4.58	240	0.52	1.22	0.6	72	97
FELINE CARDIAC PARAMETERS	LA/AO (M-mode)	LA/AO HEART BASE (Sisson)	LAD LA MAX 4 Chamber		LVOT VEL. (m/s)	RVOT VEL. (m/s)	IVRT (m/)
NORMAL PARAMETER	<1.5	1.6	0.7-1.7		<1.6	<1.3	40-60
PATIENT	1.46	1.3	1.5		1.12	1.07	NM
Adapted from June Boon, Veterinary Echocardiography, 1998 Sisson D et al. JVIM 1991; 5: 232, Jacobs et al. Am J Vet Res 1985; 46:1705							

E-Wave Velocity: 1.2 // EPSS: 0.1

## Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 separate LA measurements. The **mitral valve** was slightly thickened and vegetative. The **left ventricle** presented normal thicknesses with linear contour and was not dilated nor restricted. The **myocardium** presented normal echogenicity without subjective evidence of significant fibrotic or ischemic disease.

**Contractility** of the ventricular walls was adequate and in normal range for this patient evidenced by the fractional shortening measurement and subjective evaluation of the different regions and angles of the myocardium. The **left ventricular outflow** tract demonstrated normal laminar flow and subjective structural integrity. The **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted or chamber overload. **Tricuspid** valvular assessment demonstrated adequate linear morphology and kinetics. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. **Pulmonic** tract assessment revealed normal valve structure, laminar flow, and diameter (approx. 1:1 pa/ao ratio). No visible **pericardial** or free



## PATIENT

Sylvie Chung

## SPECIES

Feline

## BREED

DSH

## SEX

Spayed Female

## AGE

4 Years 5 Months

## WEIGHT

4.58 kg

## INTERPRETED BY

Eric Lindquist, DMV,  
DABVP(CFM), Cert.  
IVUSS

## IMAGING PERFORMED BY

Dr. Mariusz  
Chmielinski DVM

## HOSPITAL NAME

Apex Veterinary  
Services LTD

## REFERRING VET

Alpine 24/7 ER Doctor

## INVOICE

13737

## DATE

02/12/26

pleura fluid was noted or extra cardiac pathology in the visible planes. The cranial **mediastinum and pericardial regions** were free of masses in the visible window. The patient was tachycardic.

### Urinary System

The **urethra** to a depth of 4.0 cm presented mildly dilated. Deep urethral sand was present causing obstruction of the urethra and lower urinary tract. Sand accumulation measured approximately 9.0 mm at the level of the pelvis.

The **right kidney** presented with pyelectasia and swollen irregular contour with hyperechoic surrounding fat. The **left kidney** presented with similar changes and pyelectasia. Echogenic ill-defined pelvic fat was present and suggestive of pericapsular inflammation. The right kidney measured 5.27 cm in length. The left kidney measured 2.76 cm in length and was subnormal in size. Left hydroureter was noted followed approximately 2.0 cm beyond the left renal pelvis.

### 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 adrenal gland measured 0.45 cm width. The right adrenal gland measured 0.42 cm width.

### 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 were noted.

### Liver

The **liver** images from right and left intercostal as well as subcostal views revealed subjectively normal liver size, contour, and structure. Some mild to moderate age-related parenchymal remodeling was noted but likely not clinically significant at this time. Vascular and biliary tracts were of normal volume and no evidence of congestion was noted. The gallbladder presented some dependent debris with essentially normal contour. The cystic and common bile ducts were normal. No overt evidence of active inflammatory, infiltrative or regenerative pathology was noted but should be paired with current or past LE elevations regarding any clinical significance to this presentation. The hepatic lymph nodes were unremarkable. Slight increased portal markings were noted.

### Gastrointestinal

Examination of the **gastrointestinal tract** revealed a stomach and intestine free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. Small and large intestine demonstrated normal luminal chyme and stool consistency respectively. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.

### Pancreas



**PATIENT**

Sylvie Chung

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Spayed Female

**AGE**

4 Years 5 Months

**WEIGHT**

4.58 kg

**INTERPRETED BY**

Eric Lindquist, DMV,  
DABVP(CFM), Cert.  
IVUSS

**IMAGING PERFORMED BY**

Dr. Mariusz  
Chmielinski DVM

**HOSPITAL NAME**

Apex Veterinary  
Services LTD

**REFERRING VET**

Alpine 24/7 ER Doctor

**INVOICE**

13737

**DATE**

02/12/26

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.

**Free Abdomen**

Slight free fluid was noted adjacent to the spleen.

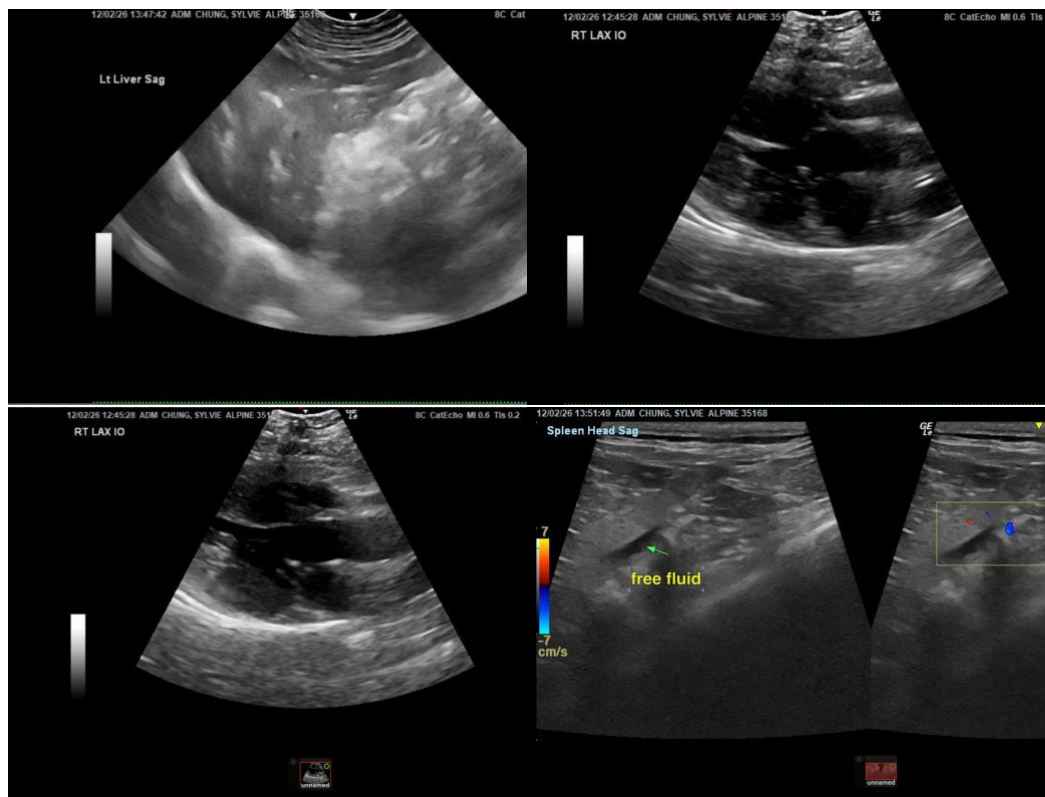
**ULTRASONOGRAPHIC FINDINGS**

- Normal echocardiogram with slightly thickened mitral valve- normal structure/function.
- Tachycardia.
- Free fluid- may be owing to overdistention of the bladder or inflammation associated with the left kidney.
- Obstructed urethra with sand.
- Secondary hydronephrosis and pyelonephritis pattern.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Baseline ECG is indicated if not already performed to ensure tachyarrhythmia is not present. No evidence of cardiac disease. Tachycardia may be owing to pain or excitement.

Catheterization and liberation of the urethra is warranted. IV fluid support, urine culture and sensitivity is indicated.





## PATIENT

Sylvie Chung

## SPECIES

Feline

## BREED

DSH

## SEX

Spayed Female

## AGE

4 Years 5 Months

## WEIGHT

4.58 kg

## INTERPRETED BY

Eric Lindquist, DMV,  
DABVP(CFM), Cert.  
IVUSS

## IMAGING PERFORMED BY

Dr. Mariusz  
Chmielinski DVM

## HOSPITAL NAME

Apex Veterinary  
Services LTD

## REFERRING VET

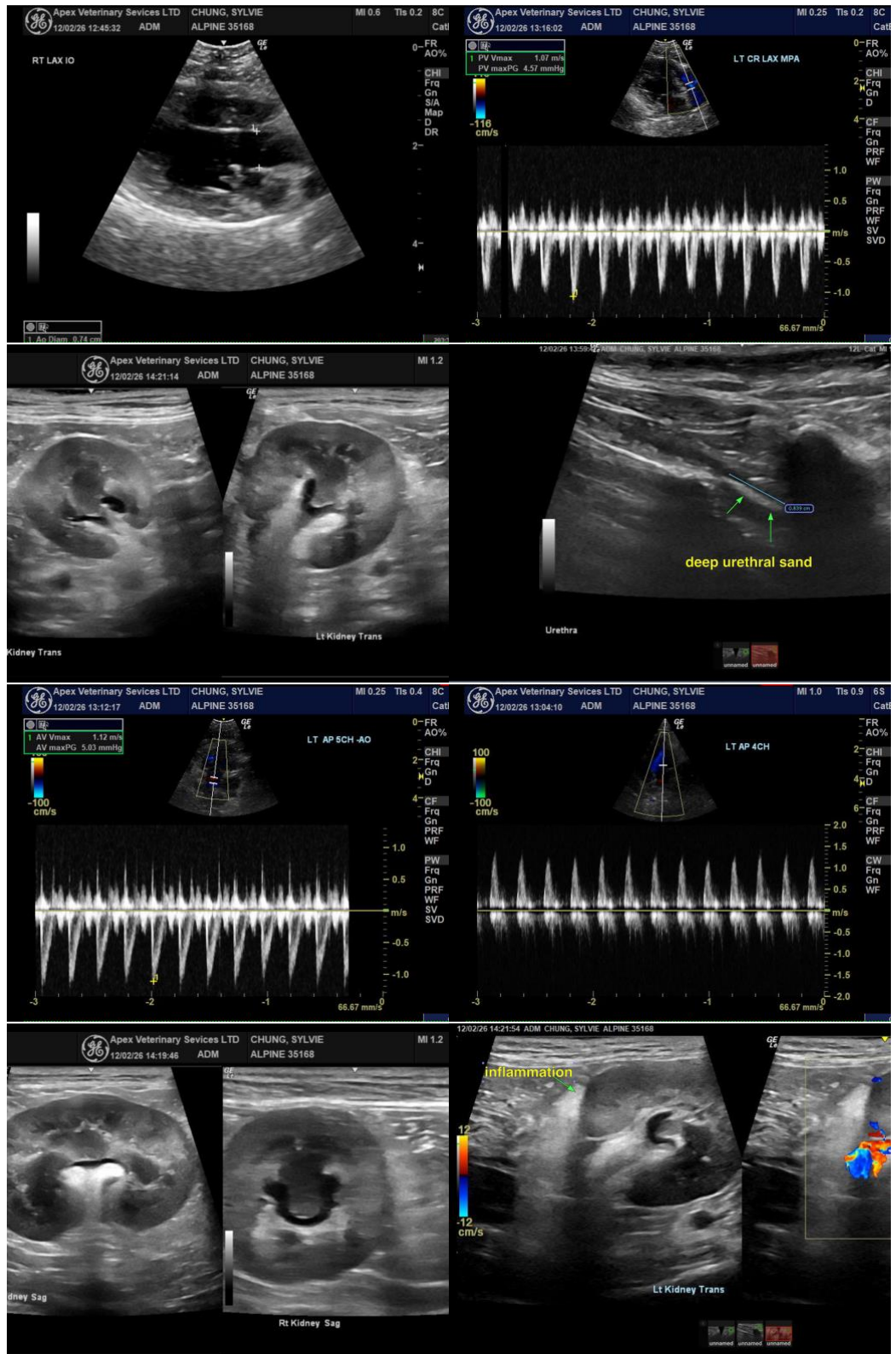
Alpine 24/7 ER Doctor

## INVOICE

13737

## DATE

02/12/26





**PATIENT**

Sylvie Chung

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Spayed Female

**AGE**

4 Years 5 Months

**WEIGHT**

4.58 kg

**INTERPRETED BY**

Eric Lindquist, DMV,  
DABVP(CFM), Cert.  
IVUSS

**IMAGING PERFORMED BY**

Dr. Mariusz  
Chmielinski DVM

**HOSPITAL NAME**

Apex Veterinary  
Services LTD

**REFERRING VET**

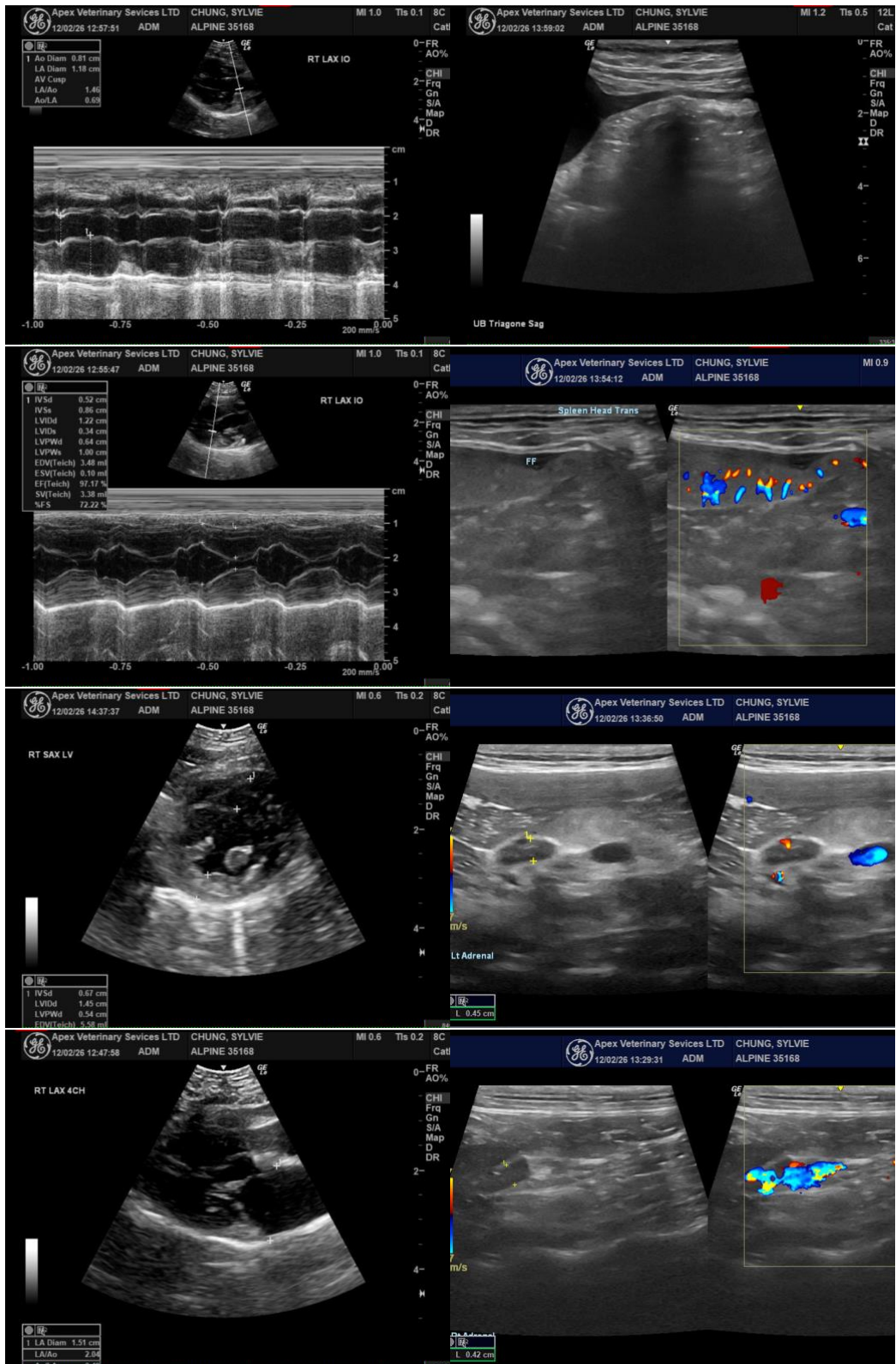
Alpine 24/7 ER Doctor

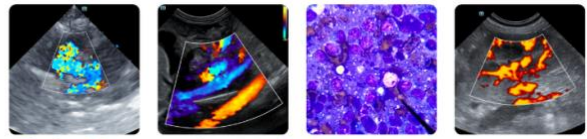
**INVOICE**

13737

**DATE**

02/12/26





## PATIENT

Sylvie Chung

## SPECIES

Feline

## BREED

DSH

## SEX

Spayed Female

## AGE

4 Years 5 Months

## WEIGHT

4.58 kg

## INTERPRETED BY

Eric Lindquist, DMV,  
DABVP(CFM), Cert.  
IVUSS

## IMAGING PERFORMED BY

Dr. Mariusz  
Chmielinski DVM

## HOSPITAL NAME

Apex Veterinary  
Services LTD

## REFERRING VET

Alpine 24/7 ER Doctor

## INVOICE

13737

## DATE

02/12/26

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(CFM), Cert. IVUSS,

CEO, Owner, Founder -- SonoPath.com

[info@SonoPath.com](mailto:info@SonoPath.com)