



PATIENT PRESENTING CLINICAL SIGNS

Muñeca Rivera
Guzman Patient presented for coughing and increased respiratory effort. Patient was diagnosed with heart murmur however no medications were sent home. Patient has been hospitalized with furosemide, spironolactone, pimobendan. Today patient has worsened, and crackles have progressed from moderate to severe. Heart murmur auscultated in physical exam and severe crackles.

SPECIES Abnormal PE/Chem/CBC/UA Results: Elevation in liver ALT and BUN present in bloodwork.

Canine **RADIOGRAPHIC STUDY OF THE THORAX & ABDOMEN**

An overview study including the thorax and abdomen in two imaging planes is provided for review.

BREED RADIOGRAPHIC FINDINGS

Lhasa Apso The body condition score is 7-8/9.

Thorax

SEX The surrounding bony structures are within normal limits.

Female Spayed The extrathoracic soft tissues present homogeneous without abnormalities.

The caudal contour of the cardiac silhouette is steep and the caudal cardiac waist is lost. The vertebral heart score is 10.9. The pulmonary vasculature of the cranial lung lobes is within normal limits.

AGE The cranial mediastinum is widened by fat.

10 Years The trachea is normal in diameter and presents the anticipated course. The luminal outline of the trachea is smooth.

INTERPRETED BY

The lung field is extending up to the level of the vertebral body of T10 – expiration. The lung parenchyma presents generalized ground glass opacity – most accentuated the caudal lung lobes. The lung pattern is partially effacing the peripheral pulmonary vessels.

Sebastian Schaub, DVM
Dr. med. vet. DipECVDF

HOSPITAL NAME

The diaphragm is well delineated with even surface and the expected mild cranial bulging of the diaphragmatic cupola.

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Hospital

Abdomen

The surrounding bony structures are within normal limits.

REFERRING VET

No abnormalities of the extraabdominal soft tissues are noted. The abdominal wall is smooth and thin.

Dra. Lazcano

The serosal detail is maintained throughout the peritoneal and retroperitoneal space.

The hepatic volume is increased and the liver is protruding caudally beyond the costal arch. The caudoventral hepatic margins are rounded. The gastric axis is deviated caudally.

INVOICE

The splenic head is in the anticipated position and within normal limits for size and opacity. The splenic body and tail are considered normal for position, size, shape and opacity.

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Both kidneys are seen and present with normal size, shape, delineation and opacity. The urinary bladder is in its anticipated position. No radiopaque calculi are noted throughout the upper and lower urinary tract.

DATE

8-22-23

The stomach is in its anticipated position and presents normal content.



PATIENT The small intestinal loops are of even diameter and non-dilated, a small amount of gas is seen within the small intestinal loops and considered within normal limits.

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Guzman

The colon is seen in the expected position and presents with appropriate content.

RADIOGRAPHIC DIAGNOSIS

SPECIES

- Generalized unstructured interstitial lung pattern
- Hepatomegaly
- Left sided mild hepatomegaly

Canine

BREED INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Lhasa Apso

The unstructured interstitial lung pattern can be accentuated by the hypoinflation due to expiratory films, age related changes of the lung parenchyma and the nutritional status of the patient. As the unstructured interstitial pattern is not specific and clinical signs did not improve under empirical therapy for possible cardiogenic pulmonary edema – the radiographic study reveals no overt enlargement of the pulmonary veins – the top differentials include pulmonary fibrosis, pneumonitis (inflammatory versus infectious) or systemic disease (e.g. pancreatitis, IMHA, renal disease). Neoplastic infiltration of the lung is considered less likely here.

SEX

Female Spayed

AGE

10 Years

Complementing blood work by proBNP can help to further rule out cardiogenic origin of the appreciated lung pattern. A cardiac echo can be considered as advanced imaging modality as well.

Obesity will also have a negative impact on pulmonary function and is a known predisposing factor for cough.

INTERPRETED BY

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Potentials for the hepatomegaly include metabolic hepatic disease/steroid induced hepatopathy, hepatitis or neoplastic infiltration. Ultrasound including FNA sampling can be used as minimally advanced diagnostic tests.

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BREED

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AGE

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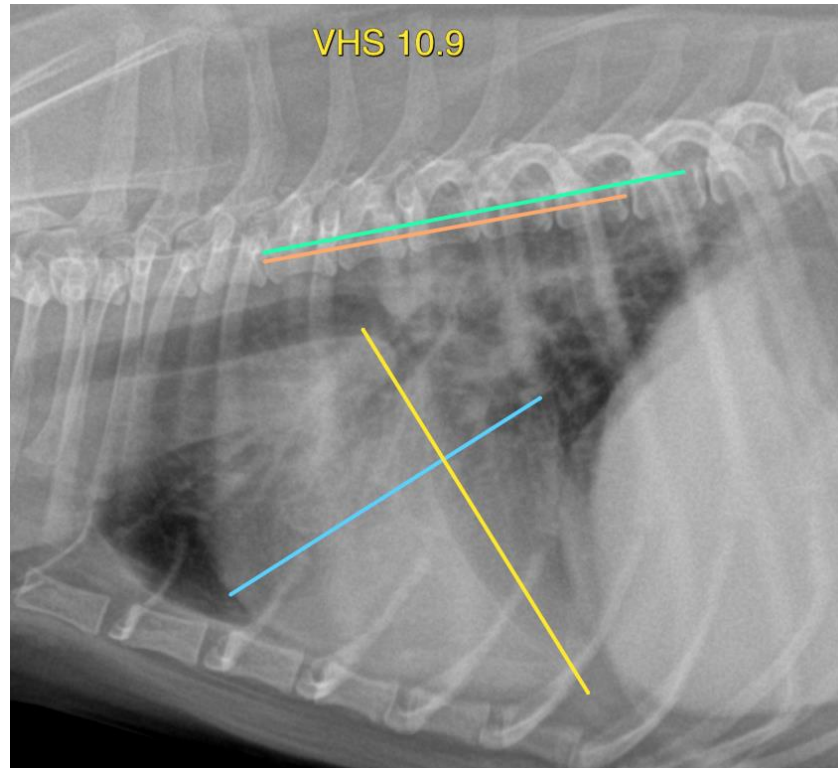
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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