

# IT'S YOUR CASE

Species: Canine Breed: Shih Tzu Sex: Male Entire Age: 14 years

#### **Clinical History:**

Progressive lethargy and hyporexia for 2 wks. Now increased respiratory rate but shallow breaths.

## Details of study and technical comments:

A radiographic study of the thorax is presented for evaluation. The study consists of right and left lateral views as well as a ventrodorsal view.

### **Diagnostic interpretation:**

#### THORAX:

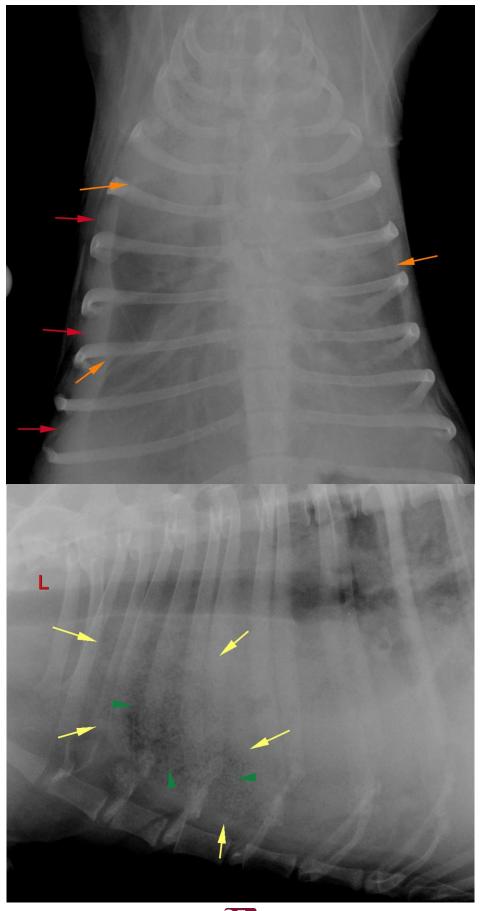
There is diffuse increased opacity throughout the thorax with reduced definition of the mediastinal structures. The margins of the right lung are retracted from the thoracic wall (red arrows). Multiple pleural fissure lines are present bilaterally (orange arrows). The cardiac silhouette is effaced by soft tissue opacity on all views.

The right cranial lung lobe has an abnormal shape on the left lateral view (yellow arrows) and a vesiculated gas pattern (green arrowheads). The principal bronchus of the right cranial lung lobe is not visible on any projection. On the right lateral view, the principal bronchus of the cranial subsegment of left cranial lung lobe is partially defined (blue arrows). There is a mild mass effect indicated by dorsal displacement of the cranial intrathoracic trachea.

A diffuse interstitial pattern is throughout the remaining pulmonary parenchyma, most noted on the left cranial lung lobe.

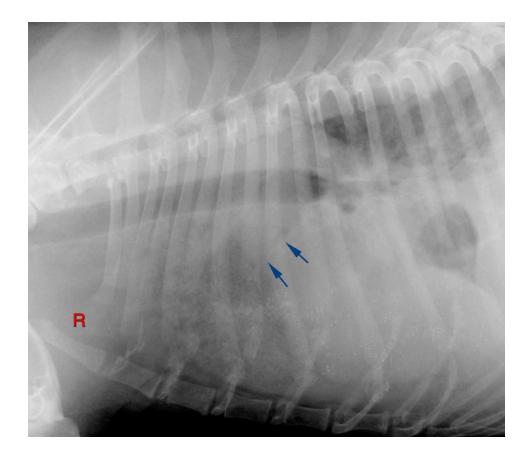
Abdominal serosal detail is reduced (limited assessment).







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#### **Conclusions:**

Right cranial lobar vesicular pattern with mild mass effect and pleural effusion. Highly consistent with lung lobe torsion, much less likely other causes of lobar infarction, atypical abscess.

Interstitial lung pattern elsewhere may be atlectatasis or concurrent pathology such as pneumonia could be considered.

#### Additional comments:

The vesiculated gas pattern is indicative of air alveolograms. This means gas is trapped in the small air space but the larger airways are not visible. This can be seen in lung lobe torsion, infarction or abscess. Lung lobe torsion is most common among these differentials. Frequently, lung lobe torsion is accompanied by asymmetric but bilateral pleural effusion and mass effect. Occasionally, the bronchus to the torsed lobe can be seen as pinched or malpositioned near the hilus, or ventral rotation of the terminal trachea can be observed. The right lateral view hints at this change however there is sufficient rotation to hesitate to consider it a definitive finding.

Diagnosis can be confirmed with computed tomography and should occur quickly since surgical intervention is indicated. There are size and breed specific trends for lung lobe torsion discussed in the literature.

# LITERATURE:

D'ANJOU, M. A., TIDWELL, A. S., & HECHT, S. (2005). Radiographic diagnosis of lung lobe torsion. *Veterinary Radiology & Ultrasound*, *46*(6), 478-484.



Schultz, R. M., Peters, J., & Zwingenberger, A. (2009). Radiography, computed tomography and virtual bronchoscopy in four dogs and two cats with lung lobe torsion. *Journal of Small Animal Practice*, *50*(7), 360-363.

Seiler, G., Schwarz, T., Vignoli, M., & Rodriguez, D. (2008). Computed tomographic features of lung lobe torsion. *Veterinary radiology & ultrasound*, 49(6), 504-508.



only be interpreted by a currently licensed and registered veterinary surgeon responsible for the care of this patient.