



---

# **Small Animal Internal Medicine 2**

**Dr. Ed Neufeld B.A. M.Div. D.V.M.**

# Chief Complaint

---

Samantha is a 7 year old female spayed Standardbred poodle with a chief complaint of dyspnea and coughing

# Samantha

---



# History

---

- All vaccinations are up to date
- Today Samantha developed dyspnea and started to cough
- She did not eat this morning
- Very lethargic
- Retching with blood colored fluid

# Physical Examination

---

- Dull/ listless
- Temperature 40 degrees C
- Heart Rate 150 bpm
- Respiratory Rate 40 per minute
- Pale mucous membranes
- Cyanotic mucous membranes
- Difficult to hear lung sounds in the ventral thorax

# Problem List

---

- Anorexia
- Dyspnea
- Tachycardia
- Retching with blood
- Difficult to hear lungs on the right thorax
- Coughing
- Pale and cyanotic mucous membranes

# Rule Outs

---

- List all the Possible Diagnoses
- *This list is your Rule Out list*

# Rule Outs

---

- Gastro/dilatation/volvulus – GDV
- Diaphragmatic hernia
- Lung neoplasia
- Pneumonia
- Fungal or foreign body lung granuloma



# Plan

---

- CBC
- Blood chemistry
- Complete urinalysis
- Thoracic and abdominal radiographs

# Findings

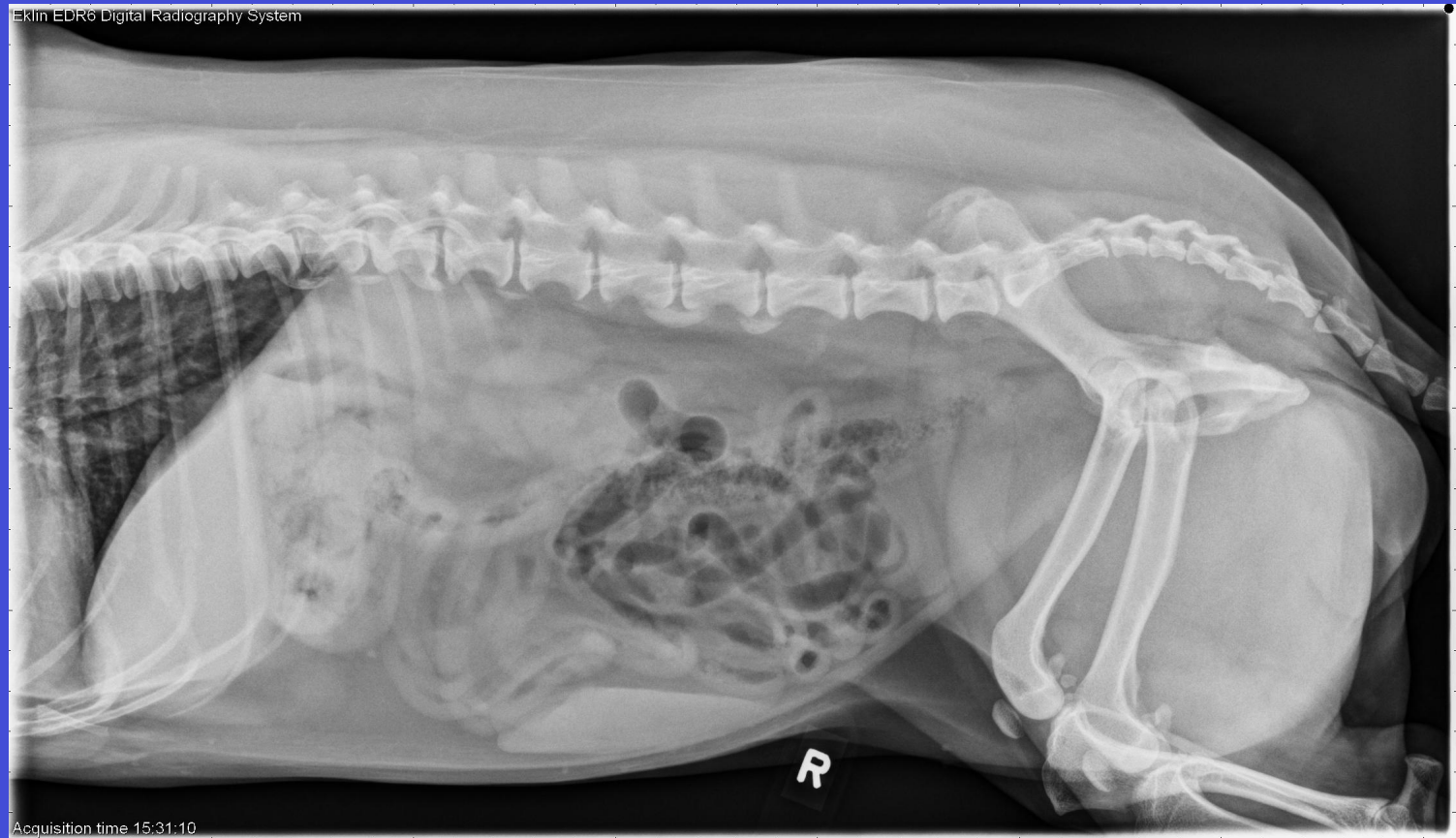
---

- RBC –  $5.0 \times 10^3$  (5.5-11.0)
- WBC –  $19 \times 10^3 \text{ mm}^3$  (7-17)
- Neutrophils -  $15 \times 10^3 \text{ mm}^3$  ( 3.2-10.8)
- Lymphocytes –  $0.25 \times 10^3 \text{ mm}^3$  (0.53-3.44)
- PCV – 60 ( 37-55 )
- BUN – 50 mg/dl (16-36)
- SCr. – 1.7 mg/dl (0.8-2.4)
- USG – 1.037 ( $> 1.035$ )

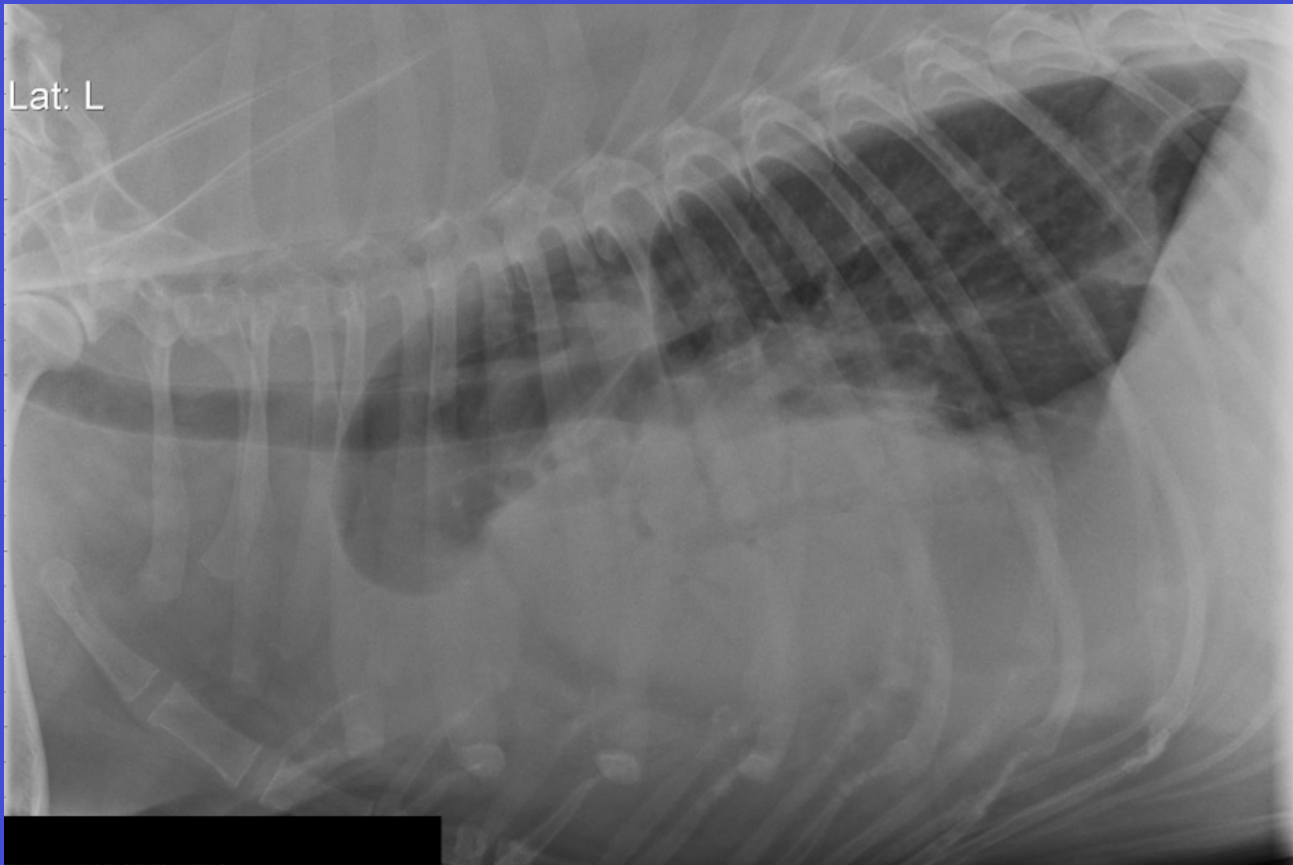
# Interpretation of laboratory findings

- List all the abnormal findings and discuss a possible cause for each of them.
- RBC –  $5.0 \times 10^3$  (5.5-11.0) - insignificant
- WBC –  $19 \times 10^3 \text{ mm}^3$  (7-17) – infection/inflammation
- Neutrophils -  $15 \times 10^3 \text{ mm}^3$  ( 3.2-10.8) – stress leukon
- Lymphocytes -  $0.25 \times 10^3 \text{ mm}^3$  (0.53-3.44) stress leukon
- PCV – 60 ( 37-55 ) – hemoconcentration - dehydration
- BUN – 50 mg/dl (16-36) – pre-renal azotemia
- SCr. – 1.7 mg/dl (0.8-2.4) – normal
- USG – 1.037 ( $> 1.035$ ) – normal – kidney's are concentrating urine

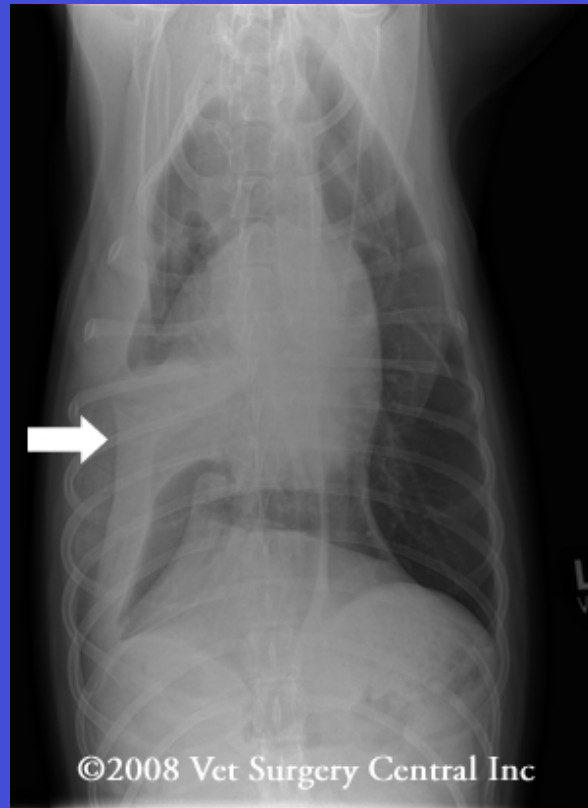
# Abdominal Radiograph (right lateral)



# Thorax – left lateral



# Thoracic radiograph V/D



# List all the abnormal radiographic signs

---

- Abdominal radiographs – normal – not GDV
- There is a large air bronchogram in the right middle lung lobe seen overlying the area where the cardiac silhouette would be
- Lobar Sign: The presence of consolidation in the right middle lung lobe adjacent to the dorsally aerated lung
- Pleural effusion
- Lung leafing

# Final Diagnosis

---

- Lung lobe torsion of the right middle lobe
- More common in large deep chested dogs
- Spontaneous syndrome in pugs < or – 4 years old



# Treatment Plan

---

- Thoracentesis to remove pleural fluid
- IV fluids
- Antibiotics
- Administer O2
- Surgery to remove the right middle lung lobe

# Prognosis

---

- Fair to good with surgical treatment

The End

---

























