

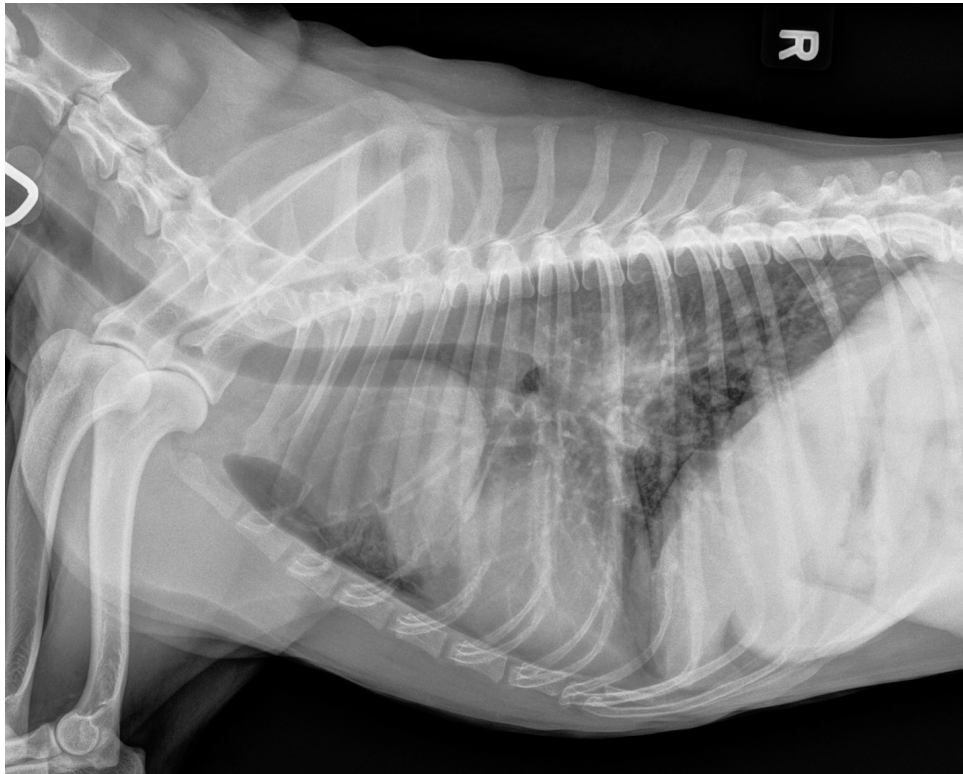


Localising Thoracic Lesions

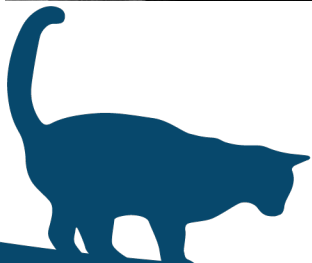
*Dr Timothy Foo BSc BVMS MANZCVS (Radiology) MVetStud
DipECVDI
Radiologist*



This is the problem



- a) Lung mass
- b) Lung mass + Tracheobronchial LN
- c) Cranial ventral mediastinal mass
- d) Thoracic wall mass
- e) I have no idea





The approach

Identification of a thoracic mass



Location



Differential diagnoses



Further recommendations





The approach

Identification of a thoracic mass



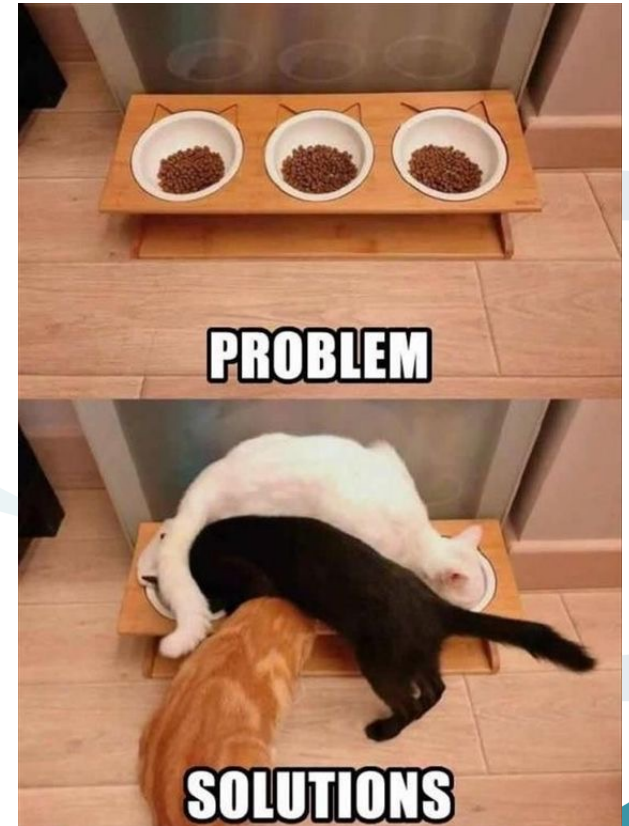
Location



Differential diagnoses



Further recommendations





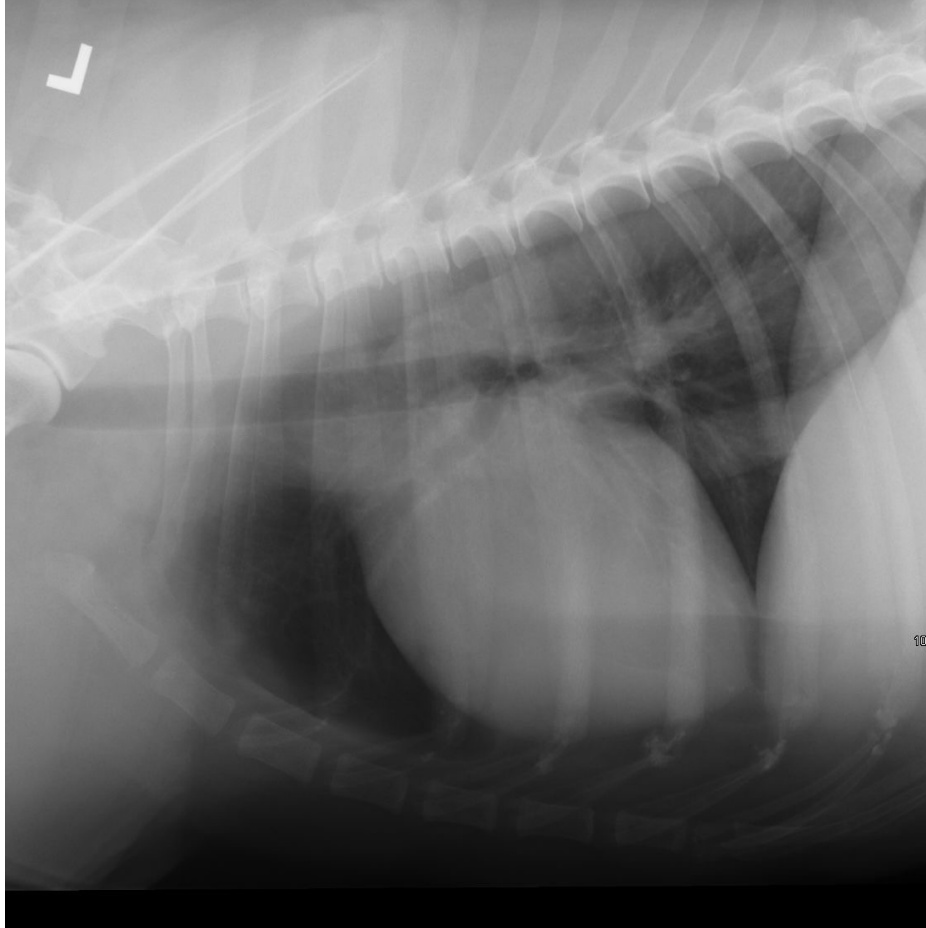
Talk outline

- 1. Mediastinum**
- 2. Thoracic wall**
- 3. Lung**
- 4. Case examples**





Revision of normal





1. Mediastinum

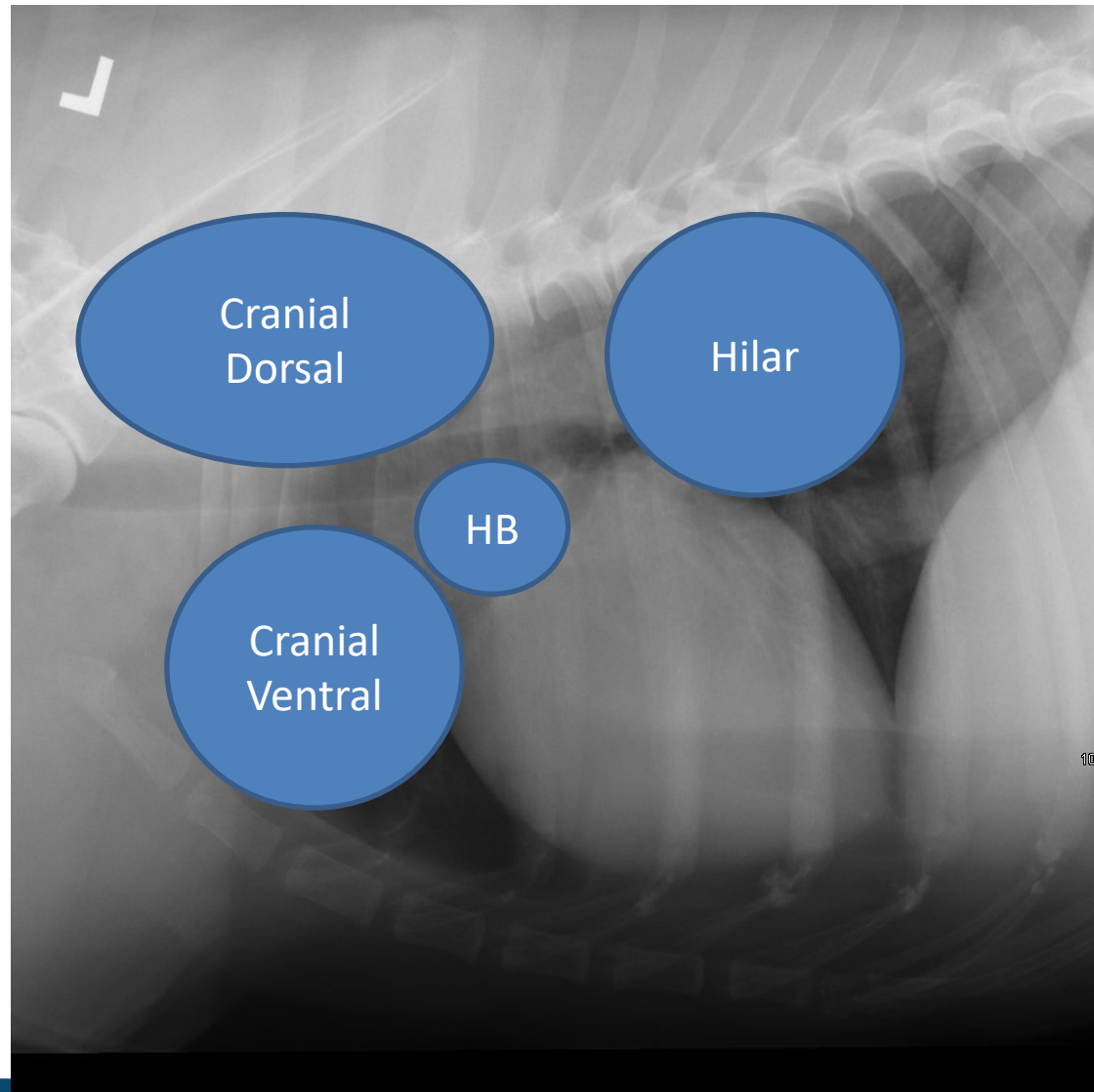
Features for a mediastinal lesion:

1. Mediastinal widening $>2\times$ vertebral width with on VD/DV
2. Tracheal displacement on laterals
3. Not easily seen on the VD/DV projection
4. If lesion is seen, it is usually midline on VD/DV



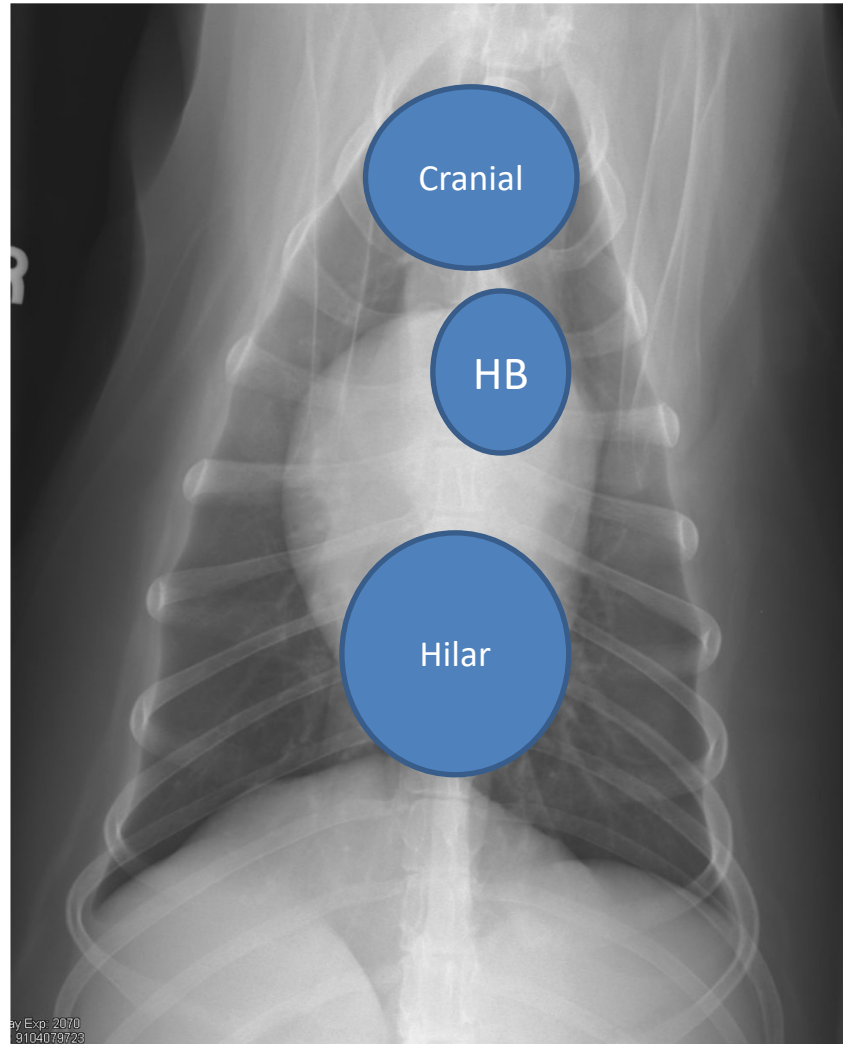


Mediastinum locations





Mediastinum locations





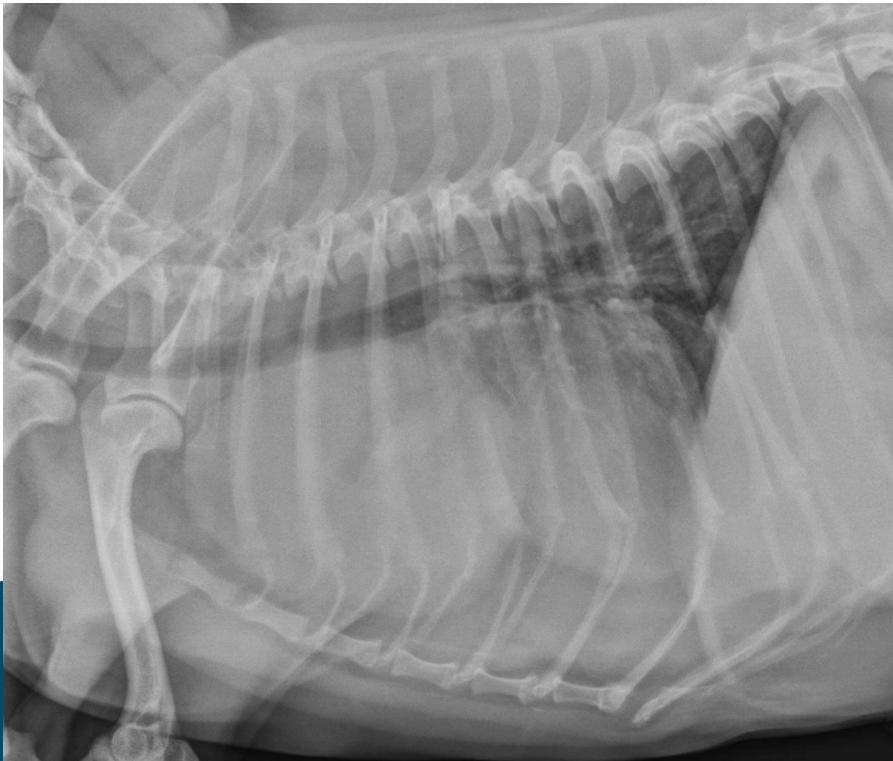
1. Mediastinum

Location of Tracheal Deviation	Direction Of Tracheal Deviation	Considerations
Cranial ventral mediastinum	Dorsal	CM lymph node Thymoma Ectopic Thyroid Tumour Mediastinal cyst/abscess
Cranial dorsal mediastinum	Ventral	Oesophageal enlargement Neurogenic Tumour
Heart base	Dorsal	Heart Base Mass MPA enlargement
Hilar	Ventral +/- splaying bronchi	TB LN
Hilar	Dorsal +/- splaying bronchi	LA enlargement TB LN*



1. Mediastinum

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1. Mediastinum

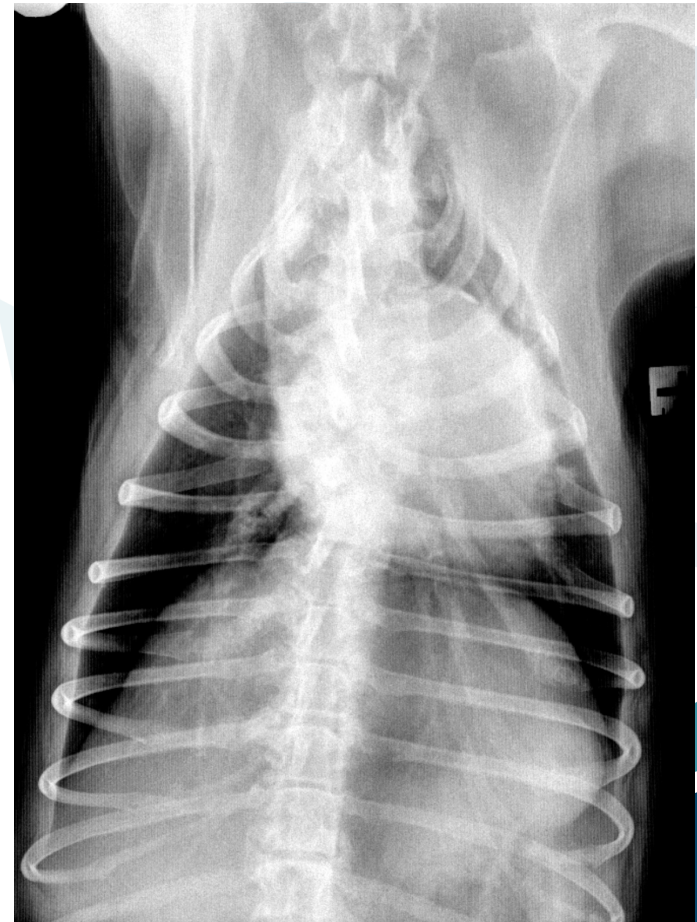
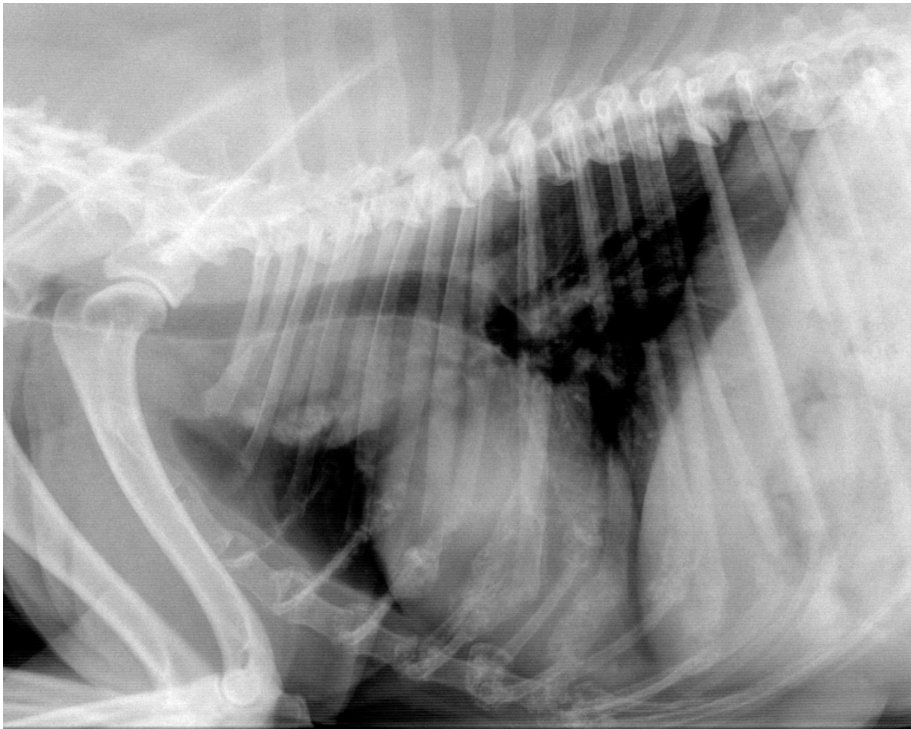
Location of Tracheal Deviation	Direction Of Tracheal Deviation	Considerations
Cranial dorsal mediastinum	Ventral	Oesophageal enlargement Neurogenic Tumour





1. Mediastinum

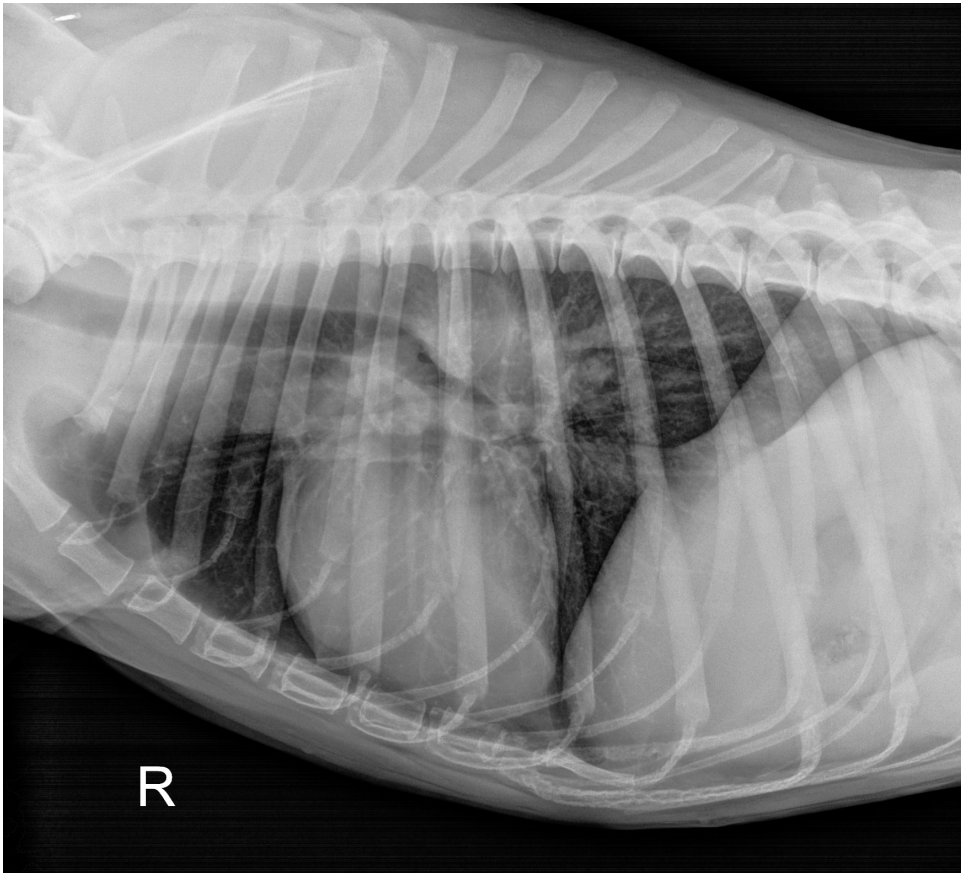
Location of Tracheal Deviation	Direction Of Tracheal Deviation	Considerations
Heart base	Dorsal	Heart Base Mass MPA enlargement





1. Mediastinum

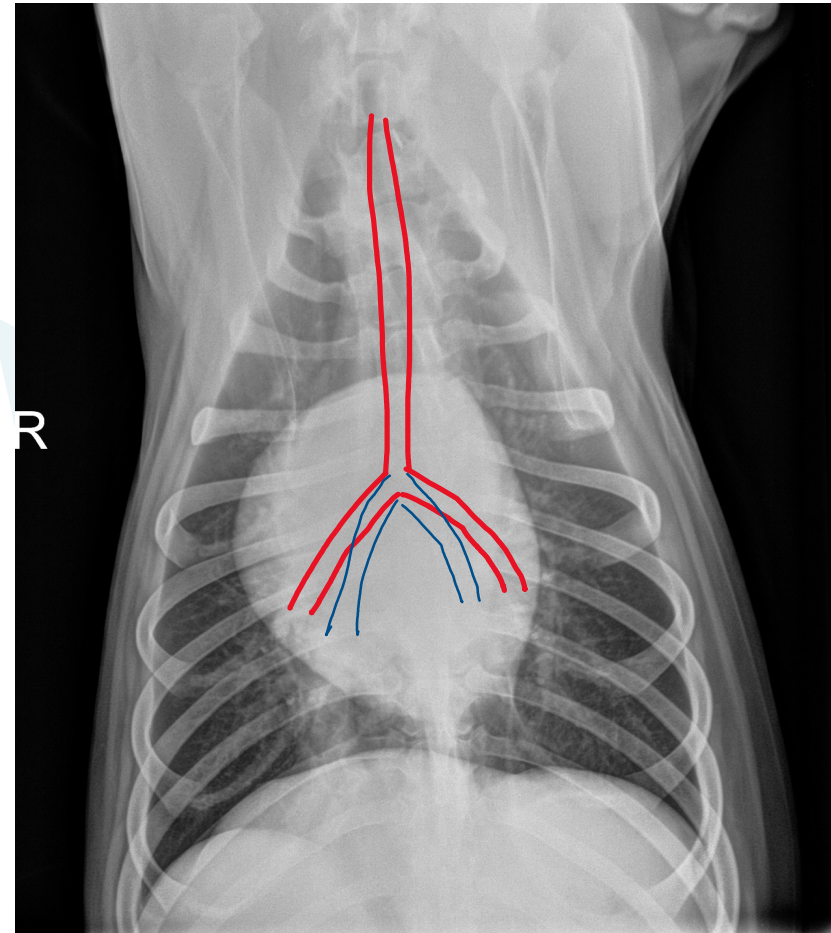
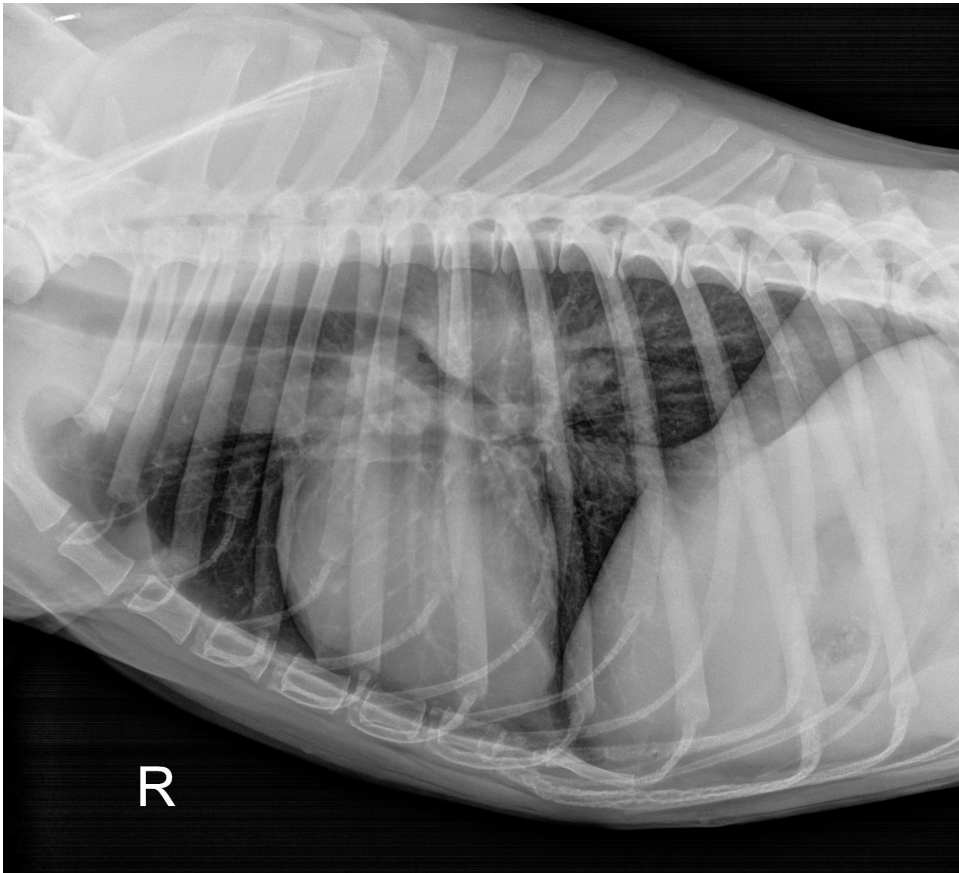
Location of Tracheal Deviation	Direction Of Tracheal Deviation	Considerations
Hilar	Ventral +/- splaying bronchi	TB LN





1. Mediastinum

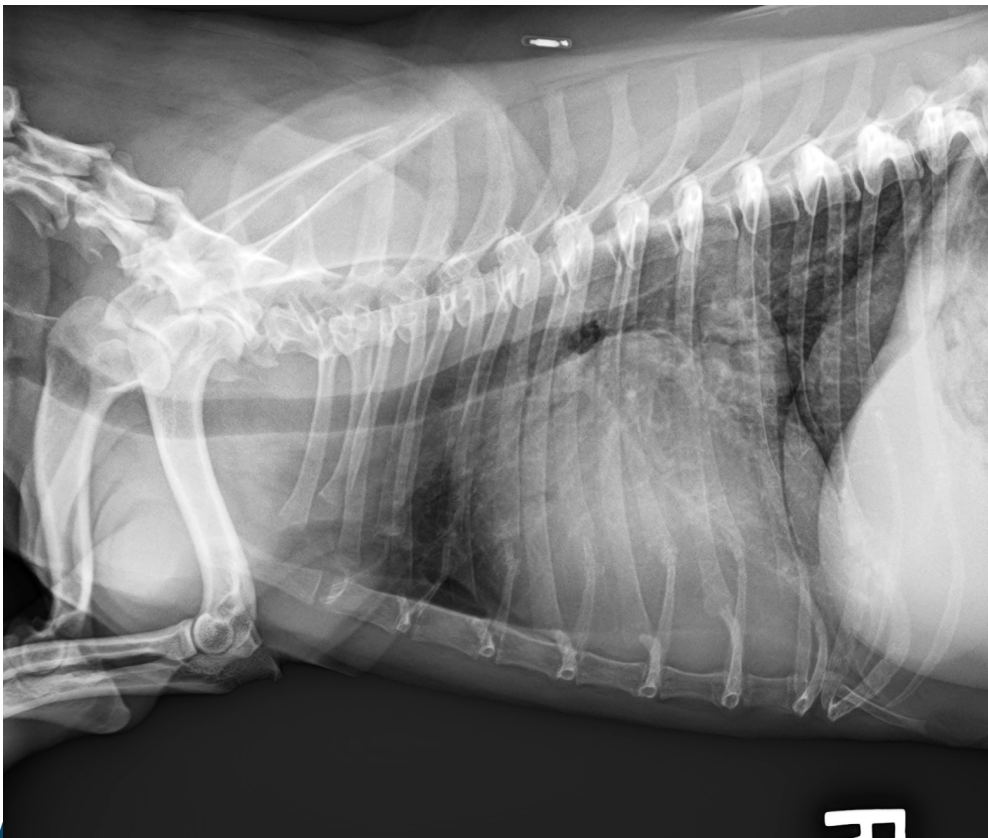
Location of Tracheal Deviation	Direction Of Tracheal Deviation	Considerations
Hilar	Ventral +/- splaying bronchi	TB LN





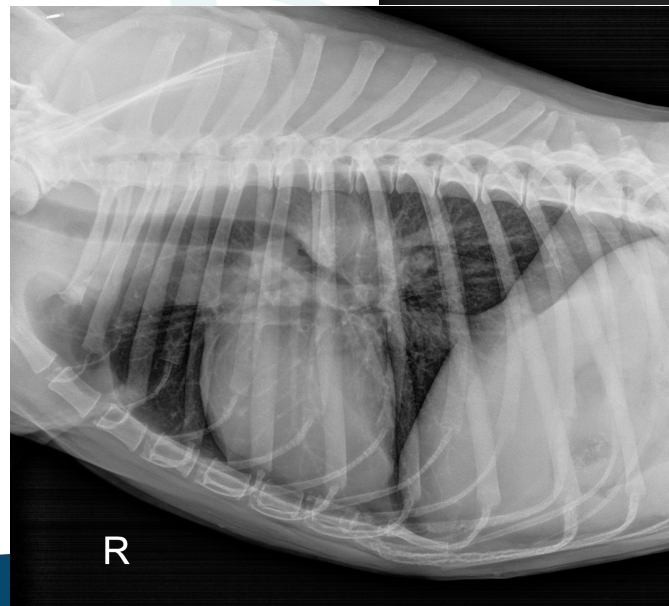
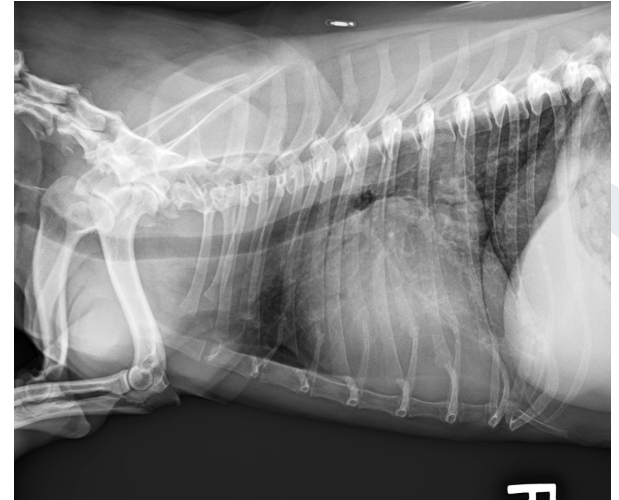
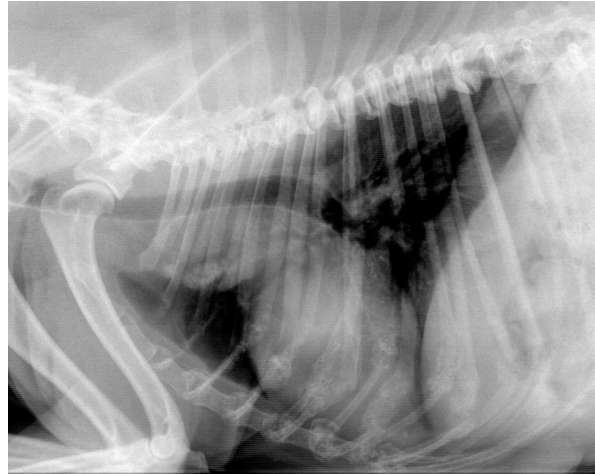
1. Mediastinum

Location of Tracheal Deviation	Direction Of Tracheal Deviation	Considerations
Hilar	Dorsal +/- splaying bronchi	LA enlargement TB LN*





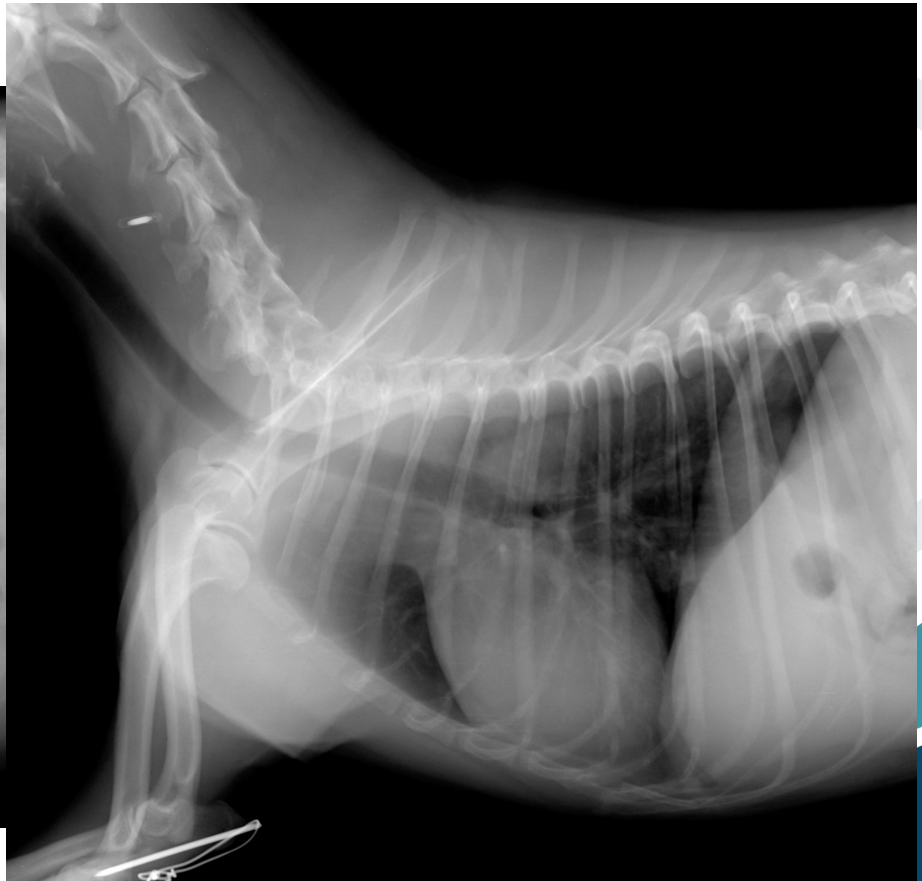
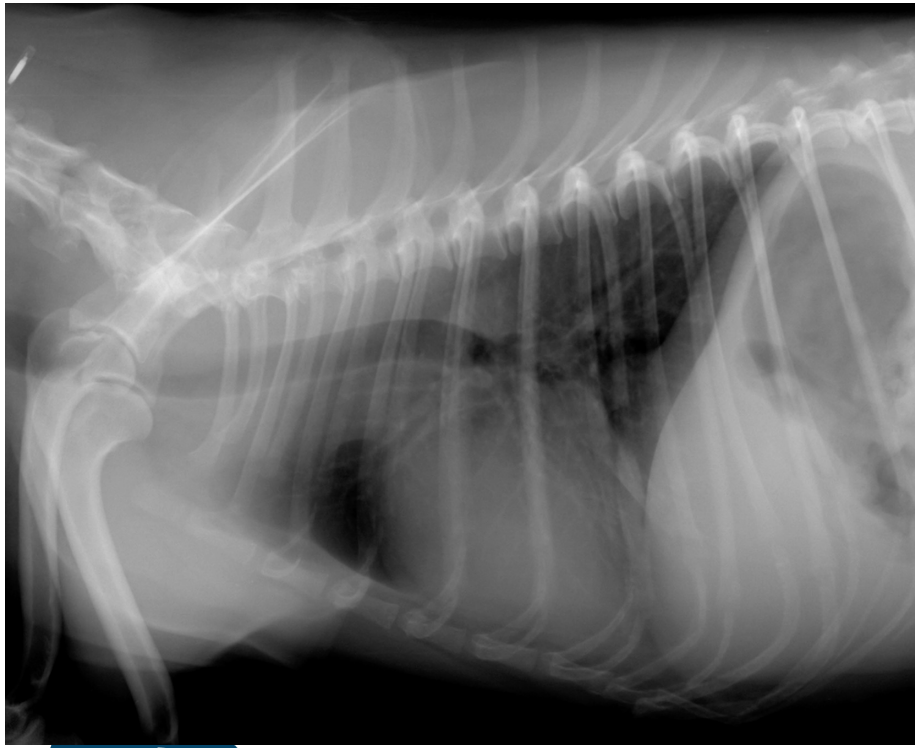
1. Mediastinum





1. Mediastinum

Effect of neck position





2. Thoracic wall

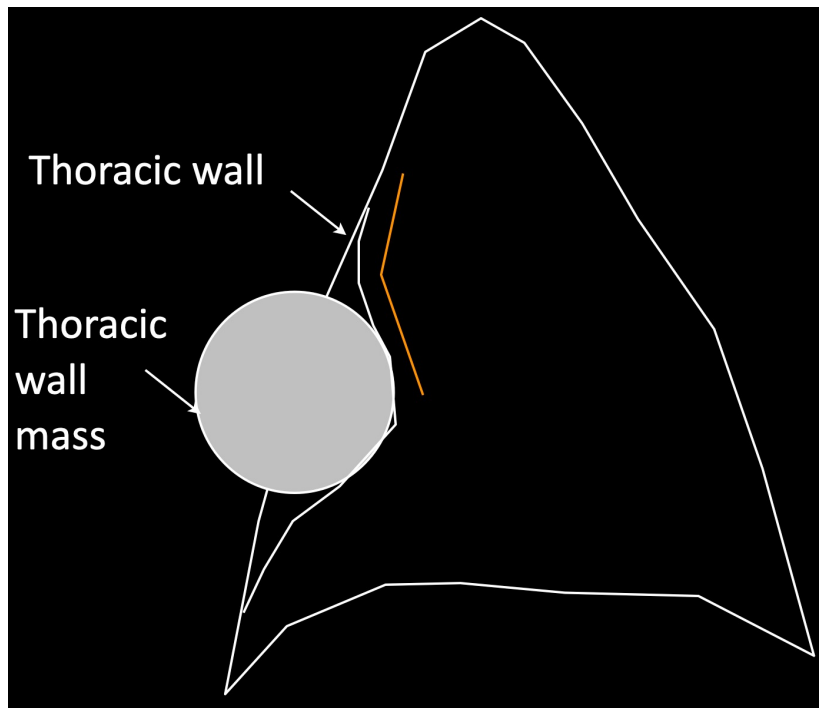
1. Extra-pleural sign
2. Rib lysis



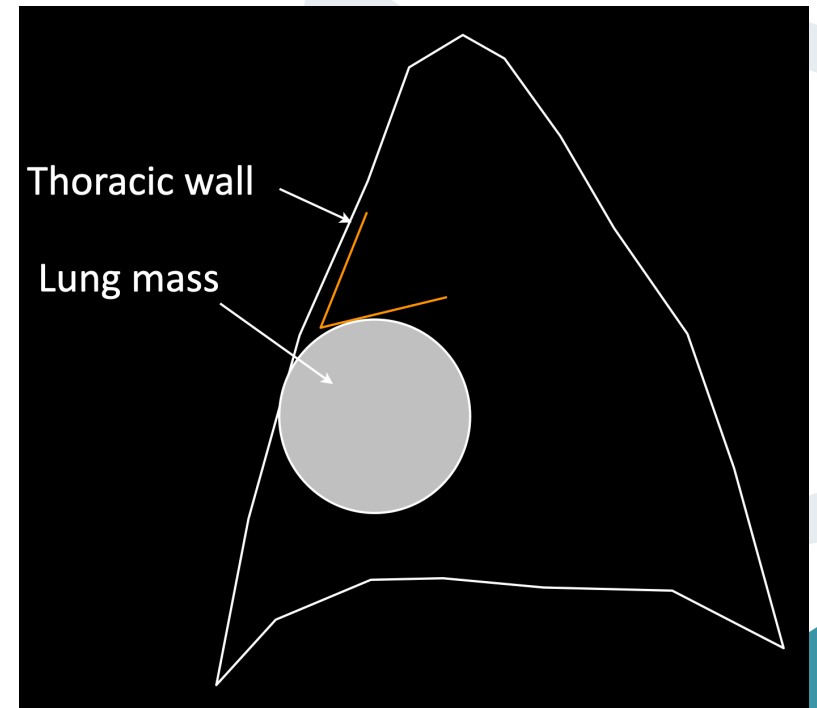


2. Thoracic wall

Extra-pleural sign



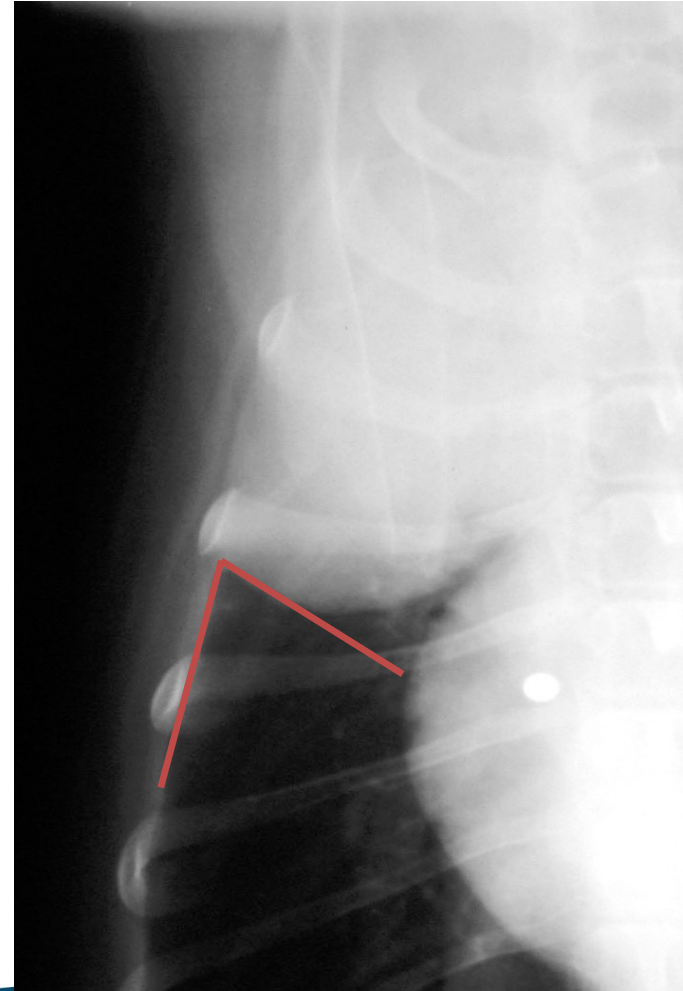
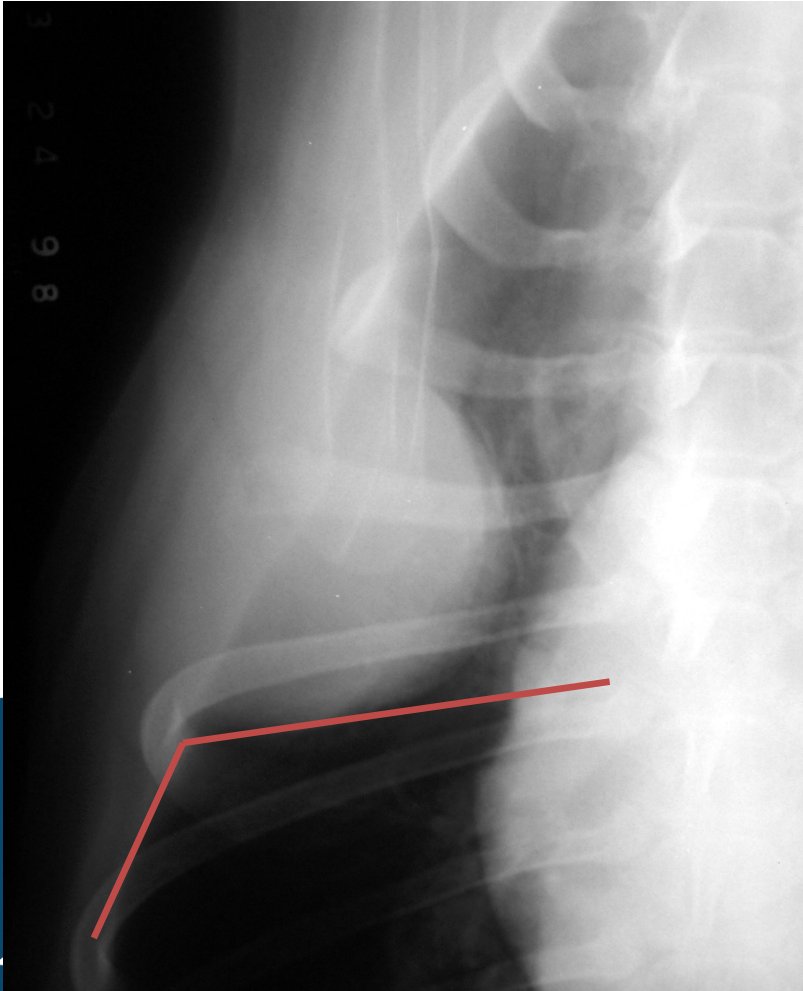
Not Extra-pleural sign





2. Thoracic wall

1. Extra-pleural sign
2. Rib lysis





3. Lung

- **Lung masses:**
 - Usually surrounded by gas so well-defined
 - See on the VD, not midline
 - Usually no tracheal displacement unless very large
 - No extra-pleural sign
 - No rib lysis





3. Lung

- **Lung masses:**
 - Usually surrounded by gas so well-defined
 - See on the VD, not midline
 - Usually no tracheal displacement unless very large
 - No extra-pleural sign
 - No rib lysis
- **Can be difficult to separate from mediastinal masses**
- **May need CT**





3. Lung





Summary

1. Mediastinum

- Widening
- Tracheal displacement – location and direction

2. Thoracic wall

- Extra-pleural sign
- Rib lysis

3. Lung

- Margins well defined
- See on VD/DV – not midline
- Tracheal usually ok
- No extrapleural sign
- No rib lysis





Case Example 1

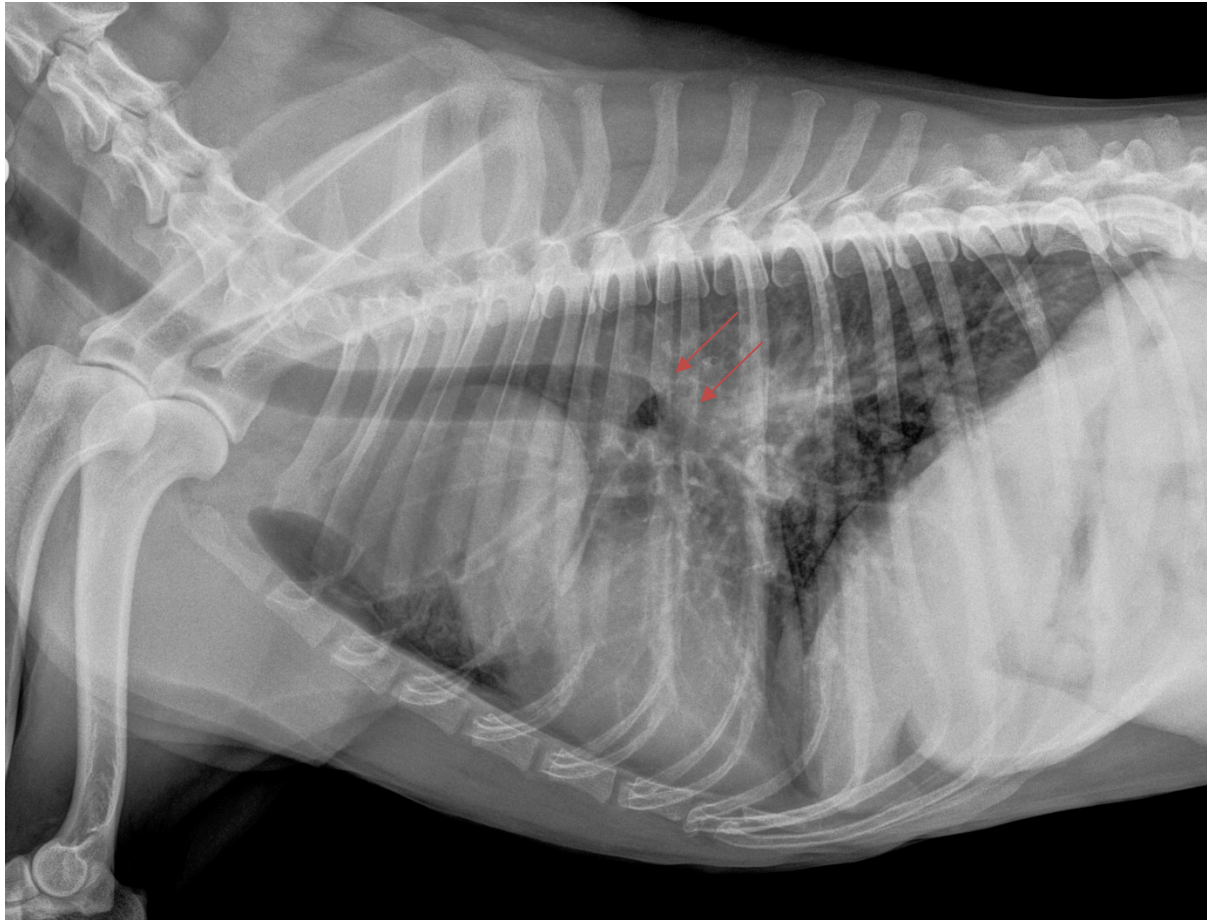


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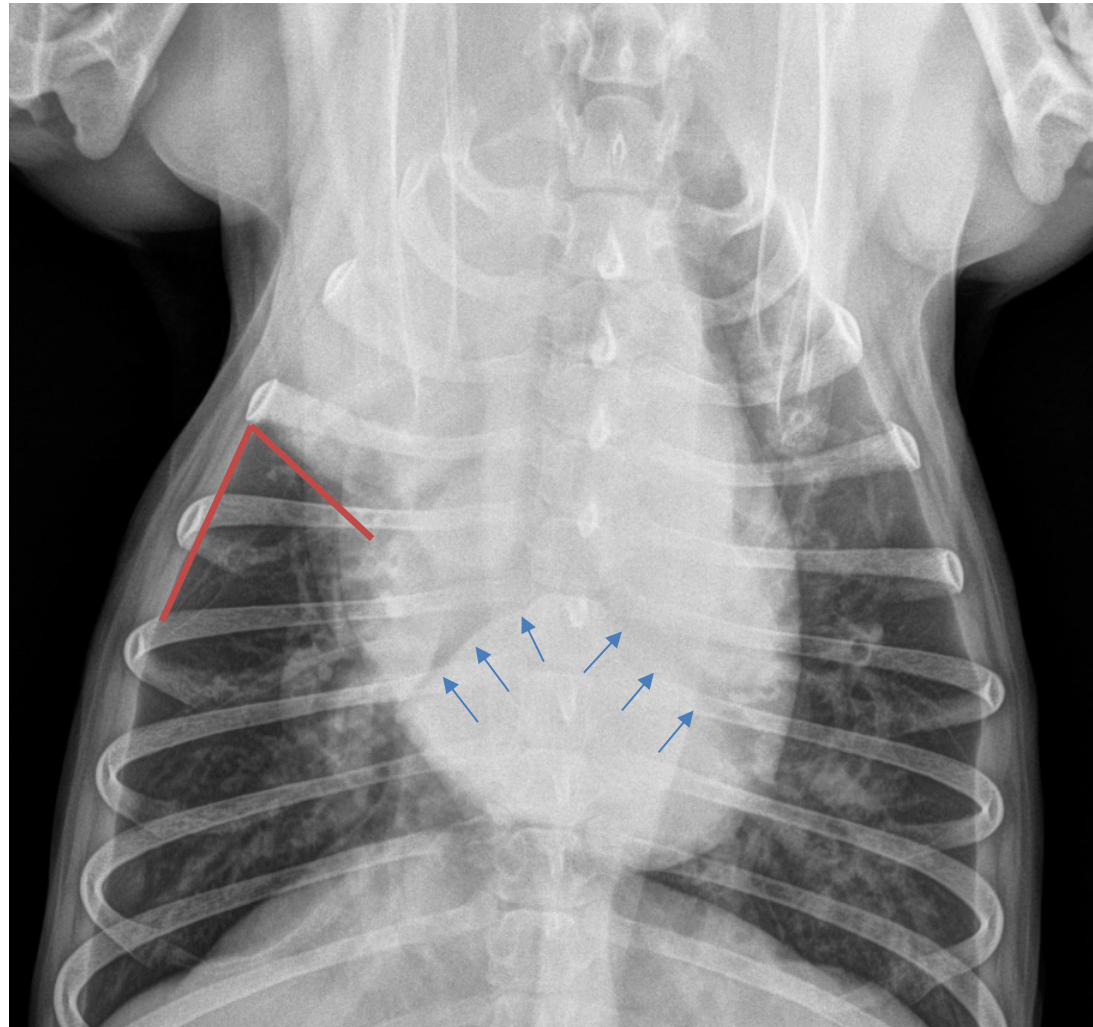


Case Example 1



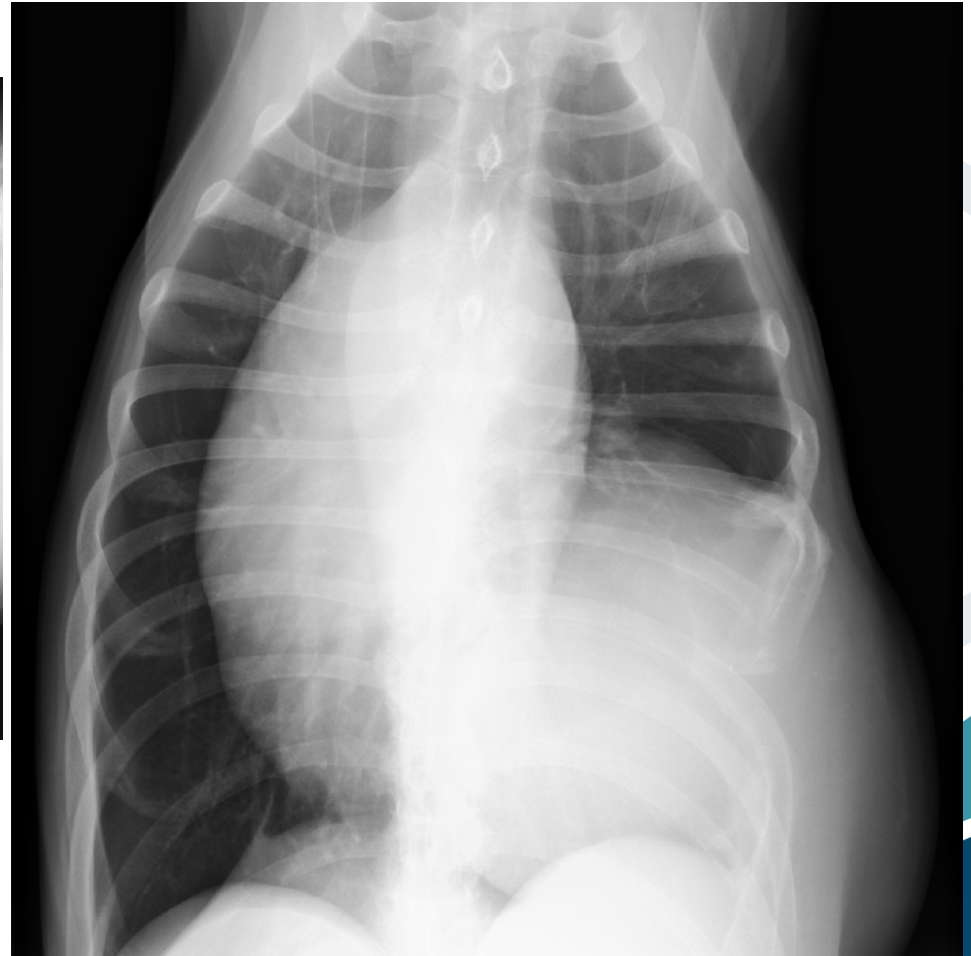
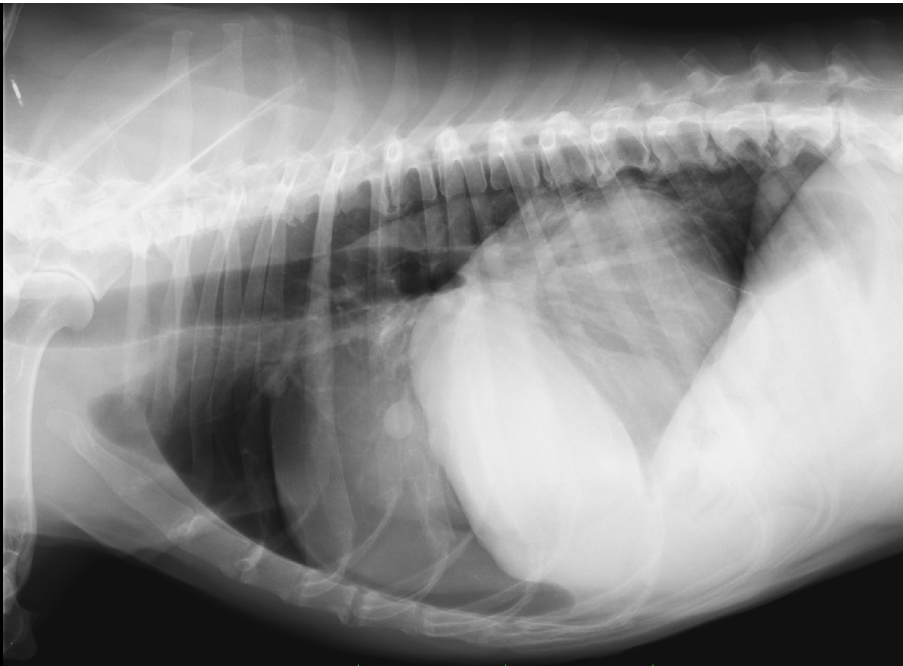


Case Example 1





Case Example 2

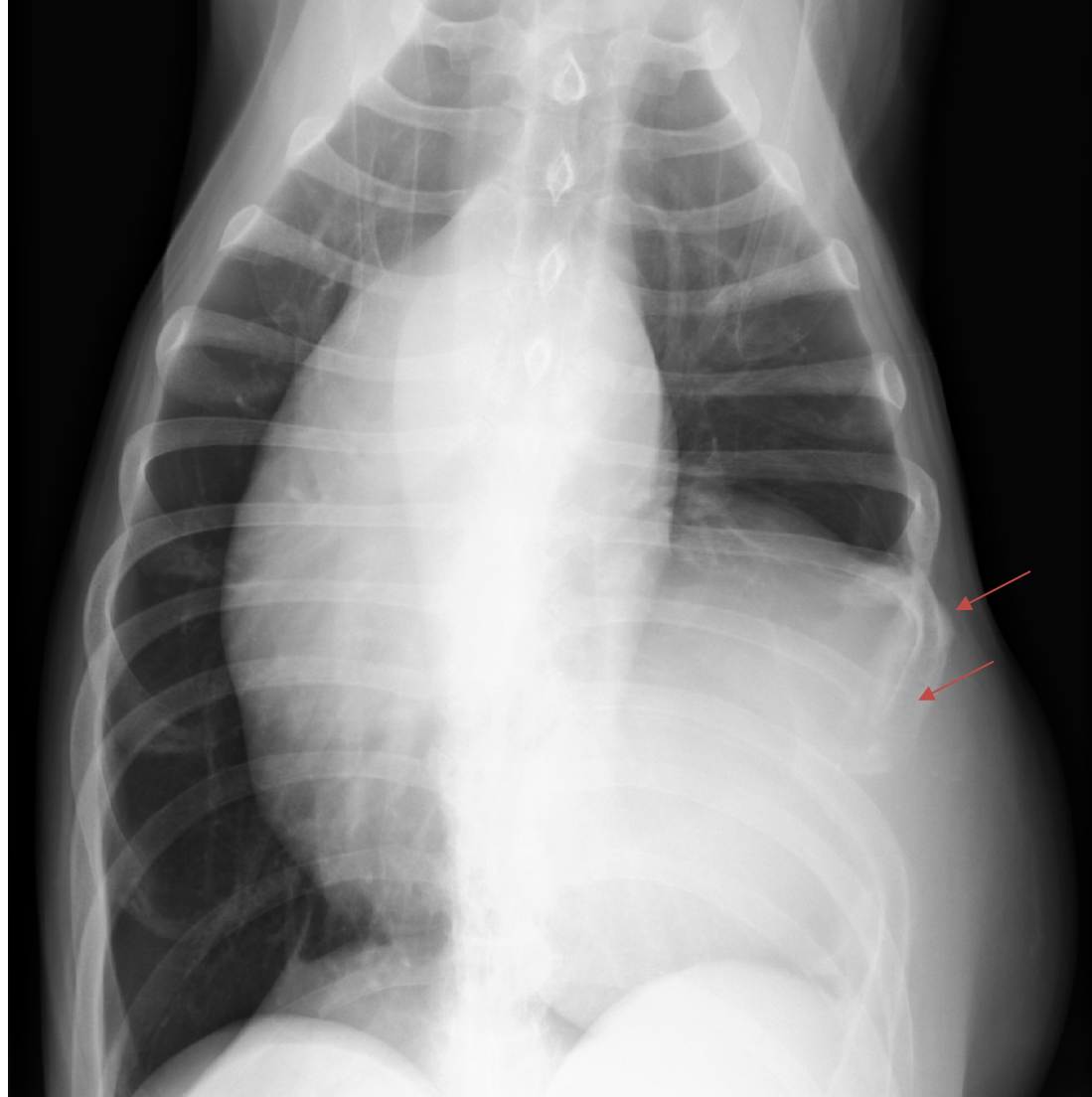


- a) **Thoracic wall mass**
- b) Lung mass
- c) Cranial ventral mediastinal mass
- d) Heart base mass
- e) Oesophageal enlargement



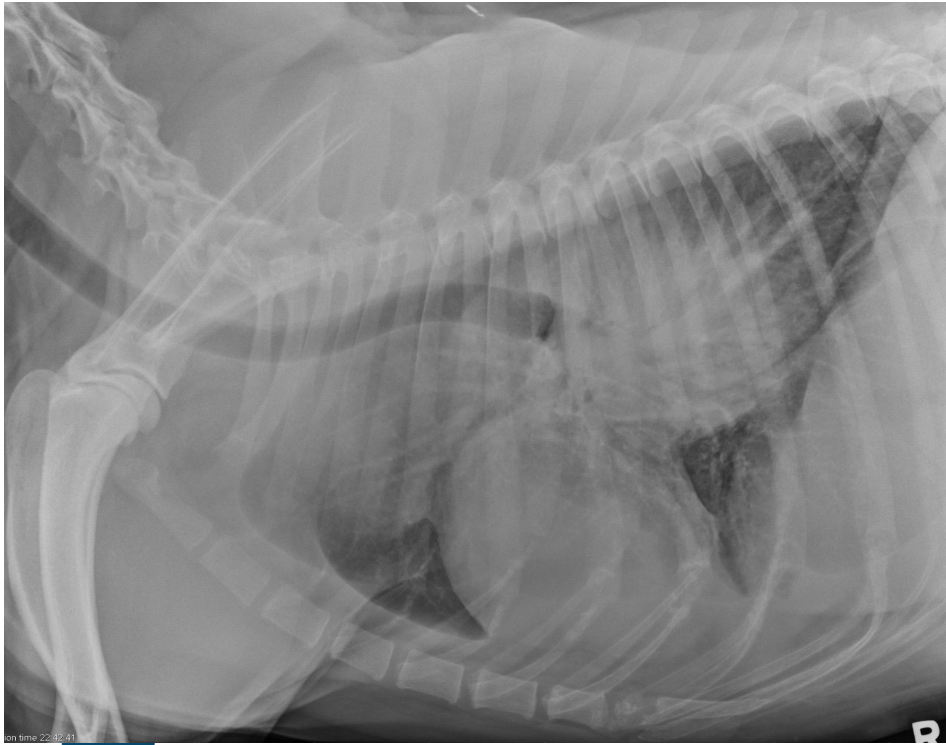


Case Example 2





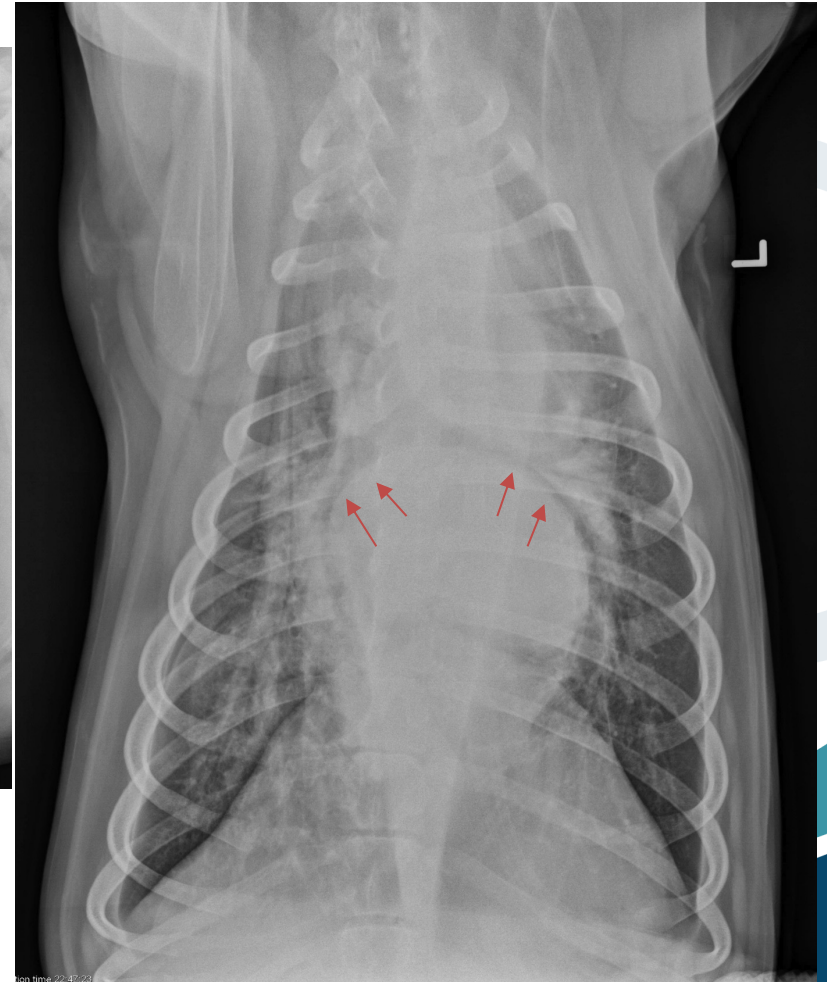
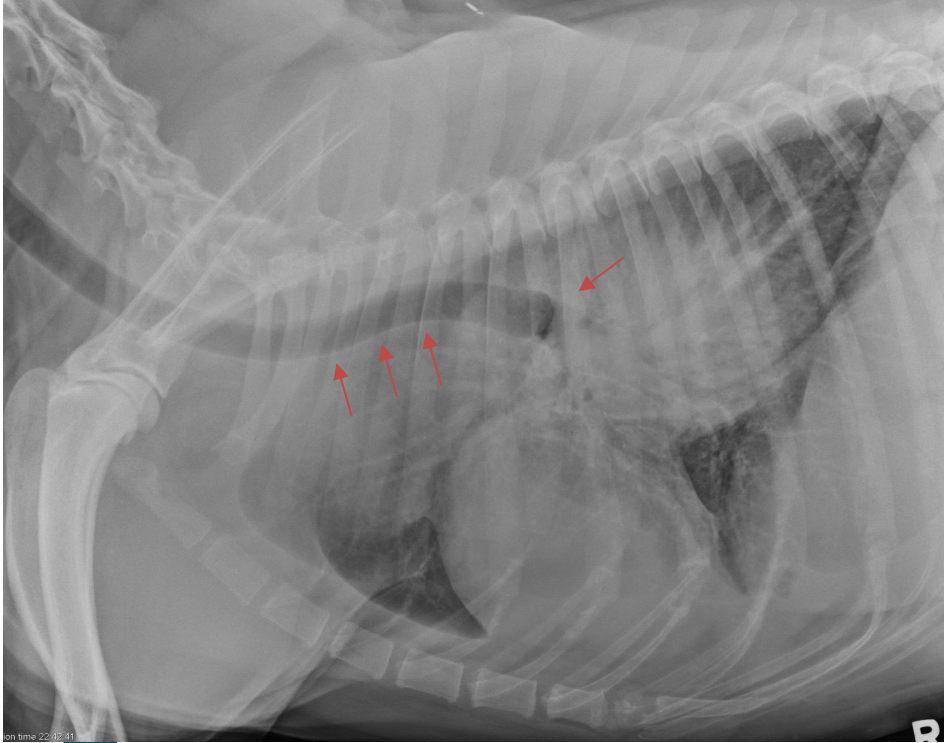
Case Example 3



- a) Cranial ventral mediastinal mass
- b) Cranial ventral mediastinal mass + Tracheobronchial LNs
- c) Heart base mass
- d) Lung mass
- e) Thoracic wall mass



Case Example 3





Case Example 4

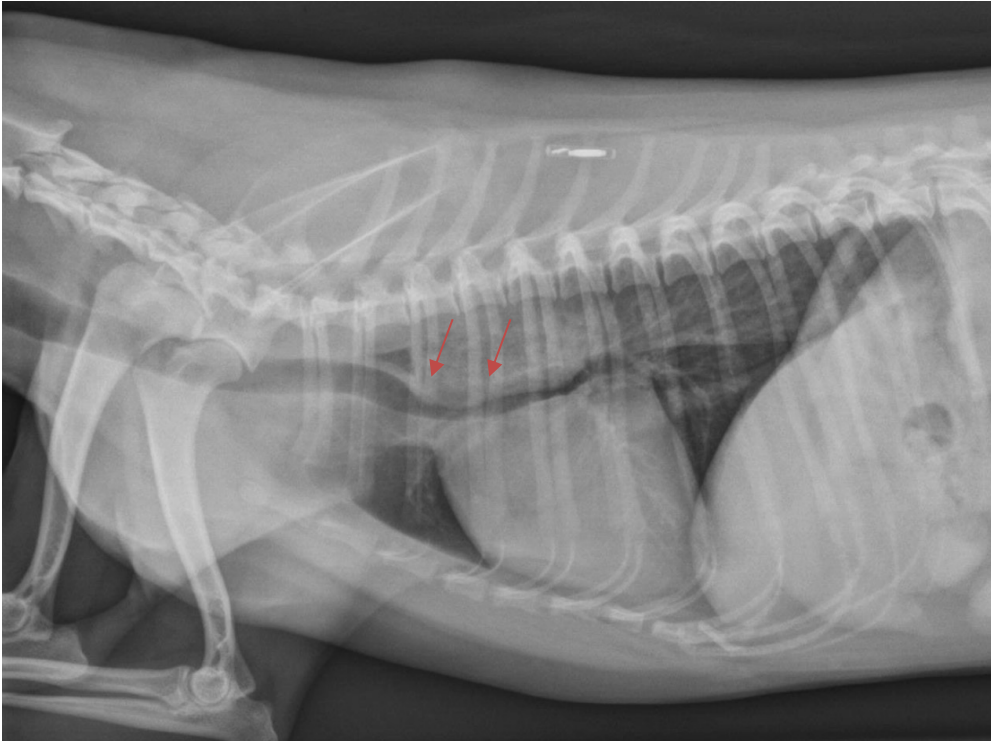


- a) Lung mass
- b) Thoracic wall mass
- c) Oesophageal enlargement/mass
- d) Tracheobronchial LN enlargement
- e) Cranial ventral mediastinal mass





Case Example 4





Case Example 5

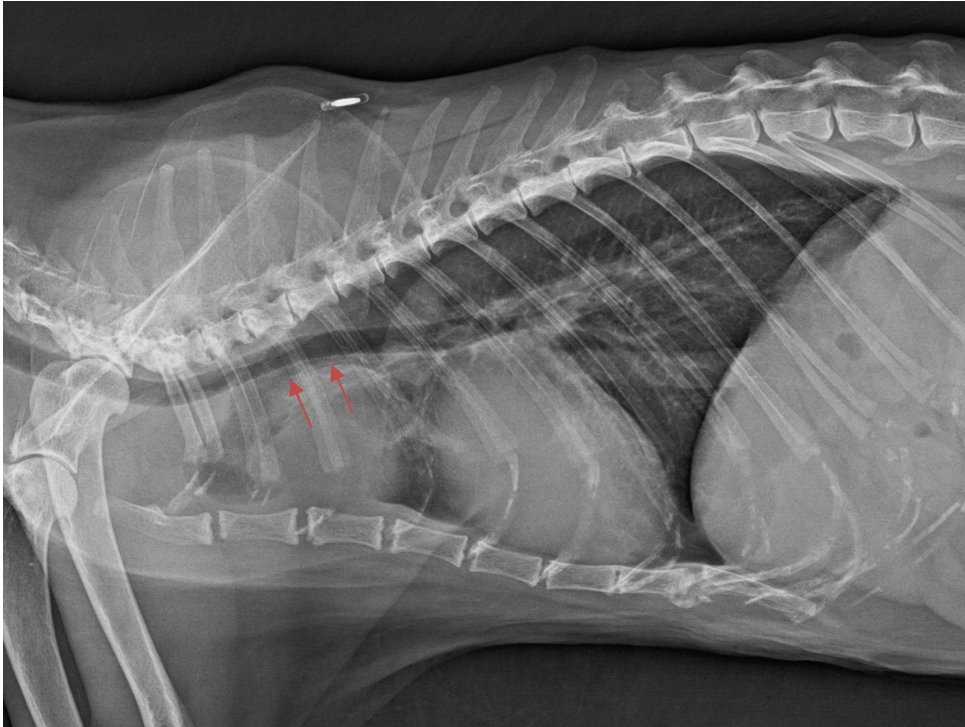


- a) **Cranial ventral mediastinal mass**
- b) Lung mass
- c) Thoracic wall mass
- d) Oesophageal enlargement/mass
- e) Heart base mass





Case Example 5



Thank You

Questions?

