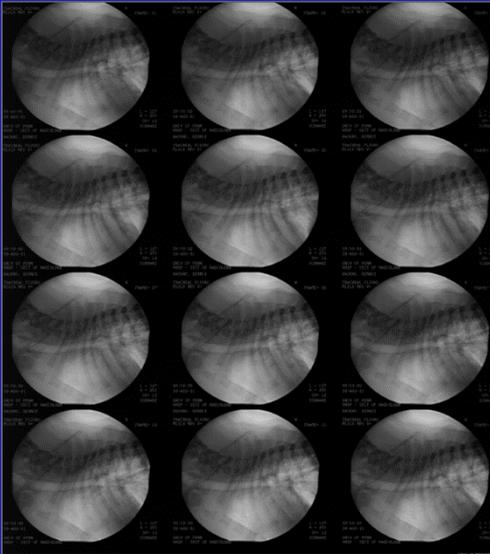


# **Radiologia della trachea**

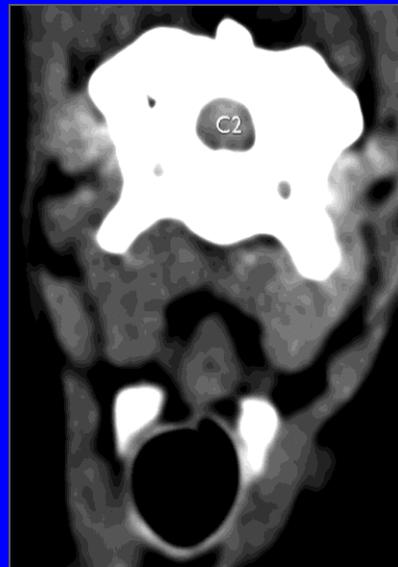
**Massimo Vignoli**  
**[mvignoli@unite.it](mailto:mvignoli@unite.it)**

# Tecniche d'immagine per la trachea

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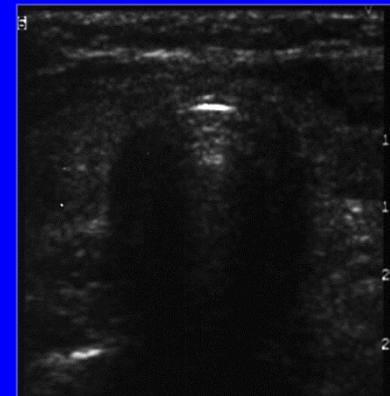
Endoscopia



TC



Radiologia



Ecografia

# Esame radiografico della trachea

- **Proiezione** laterale o VD (per deviazioni)
- **Dimensione:**
- rapporto diametro trachea/diametro ingresso torace **0.2 +/- 0.03, 0.16 brachi, 0.13 bulldog (fino a 0.09 no segni clinici)** Harvey et al., 1982; SK Kneller in Thrall 2002
- rapporto diametro trachea/diametro prossimale 3° costa (da 2:1 a 1:1) Suter et al., 1972

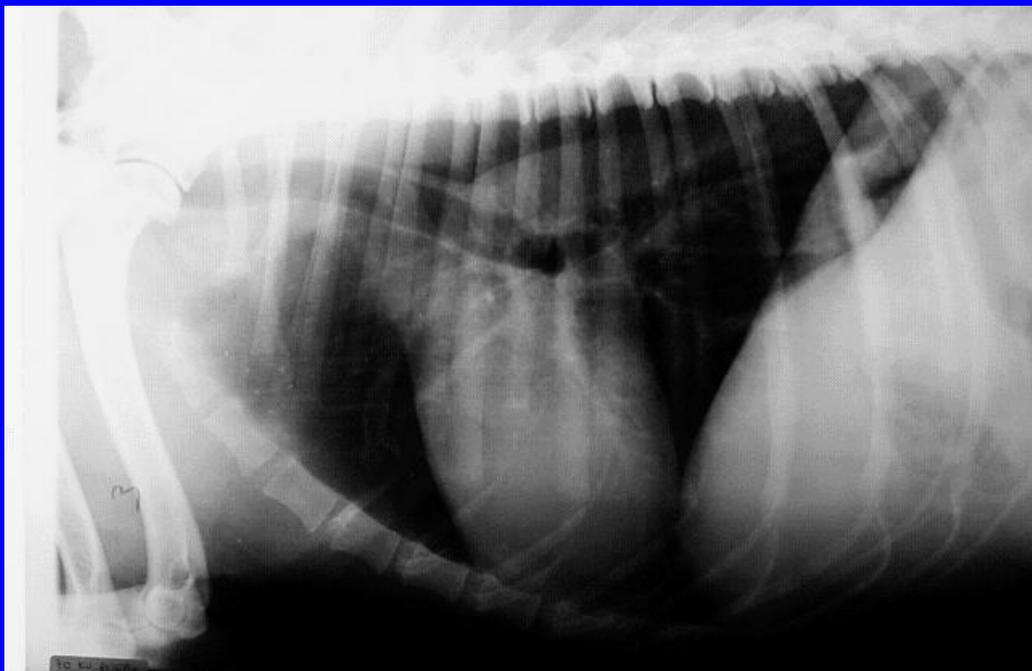
# Trachea

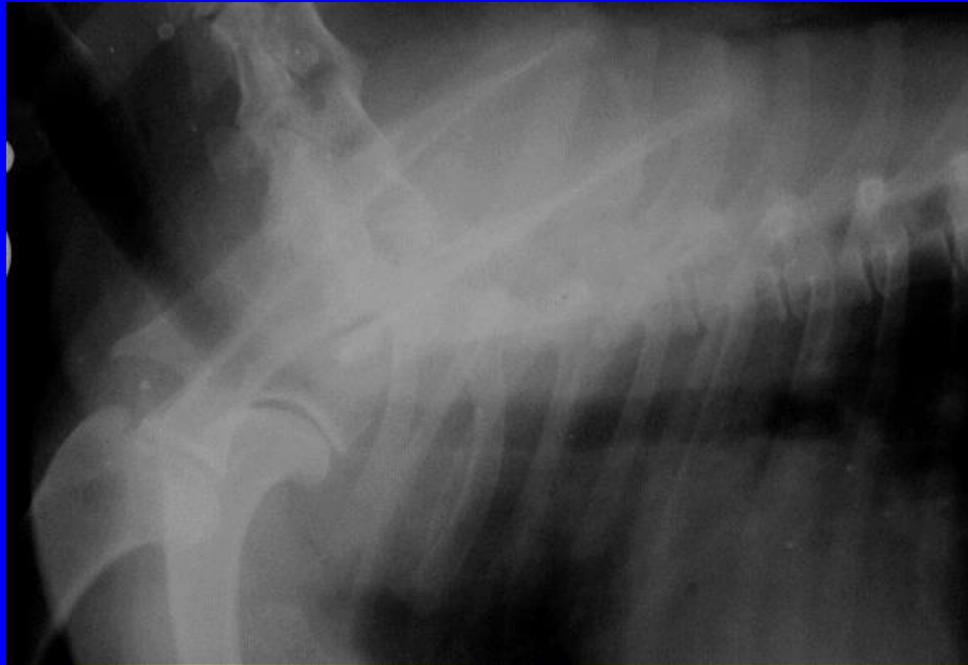
- **Decorso:**
- **Rettilineo**
- **Divergente dalla colonna vertebrale  
(angolo variabile in base alla  
conformazione)**

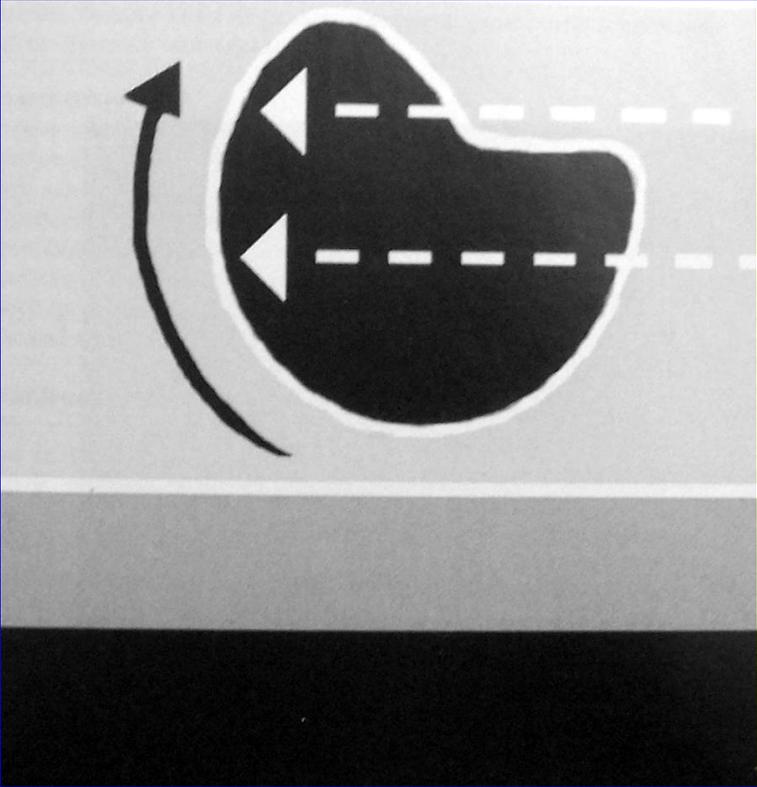


# Artefatti

- **Iperflessione della testa e del collo:** deviazione dorsale del tratto toracico
- **Iperestensione della testa e del collo:** determina sovrapposizione con mm “longus colli”
- **Proiezione obliqua:** sovrapposizione esofago o altri tessuti molli può simulare collasso tracheale





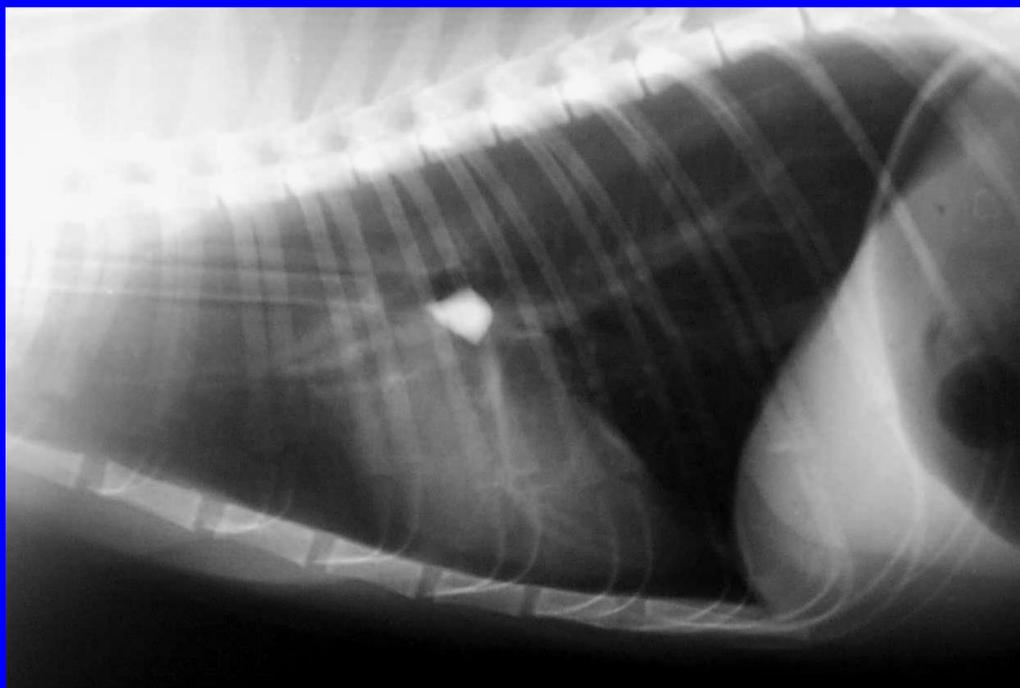


# Trachea - patologie

## Alterazioni di forma e radioopacità

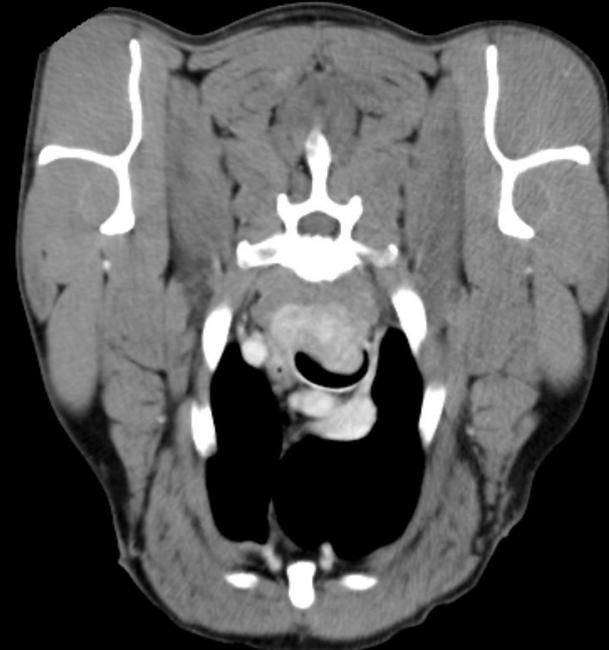
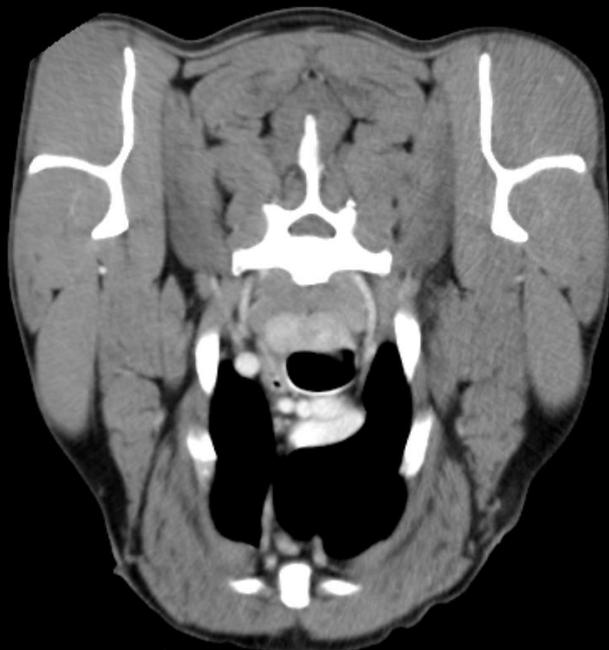
- **Tracheite**: se grave riduzione del diametro tracheale.
- **Stenosi** segmentaria (II a cicatrizzazione o iatrogena) o generalizzata (ipoplasia)
- **C.E.**
- **Granulomi da parassiti** (*Filaroides osleri*)
- **Neoplasie** endo- o extratracheali che ne invadono il lume
- **Collasso tracheale**

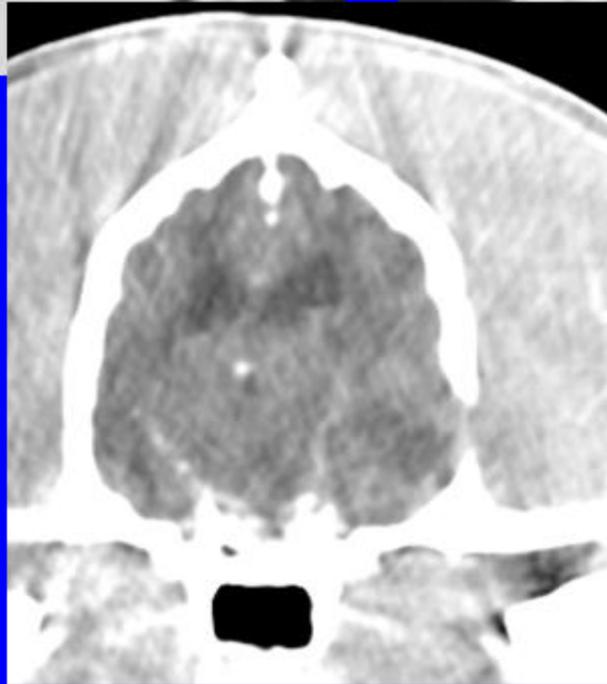
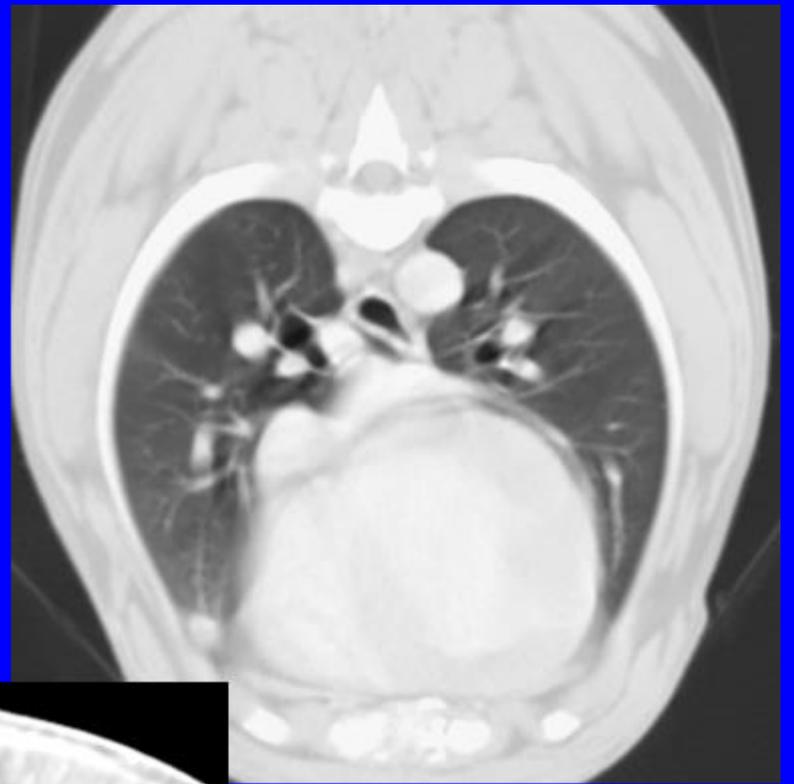
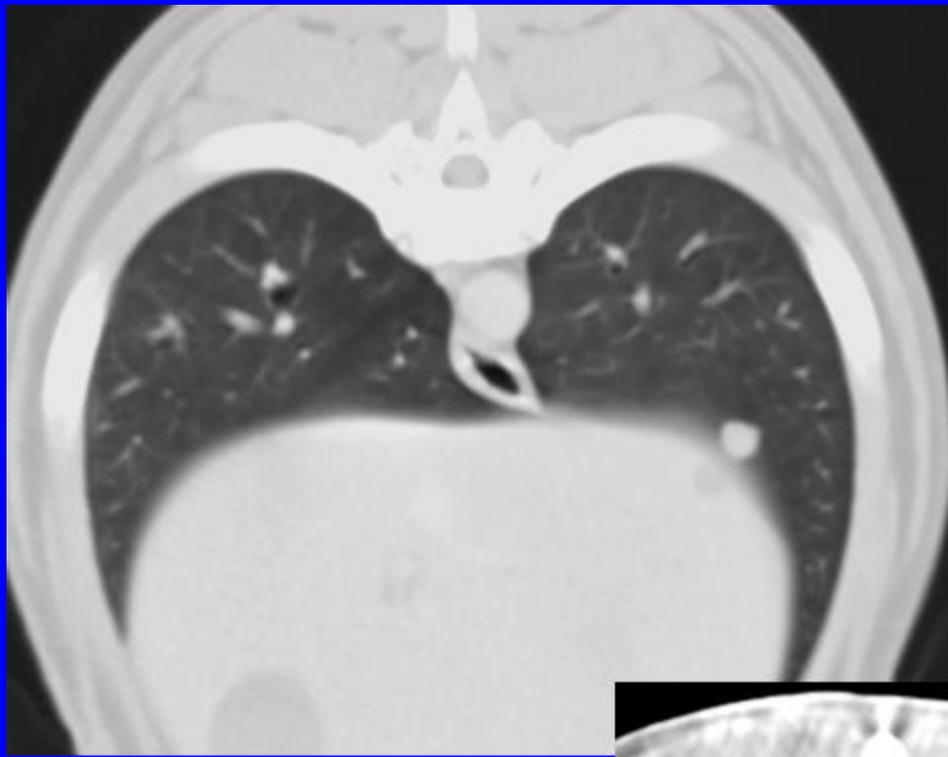
## Gatto Europeo, femmina, anni 4



# Neoplasia Boxer m







## **Alterazioni di posizione:**

### **Trachea cervicale:**

- Deviazione ventrale
- Deviazione laterale

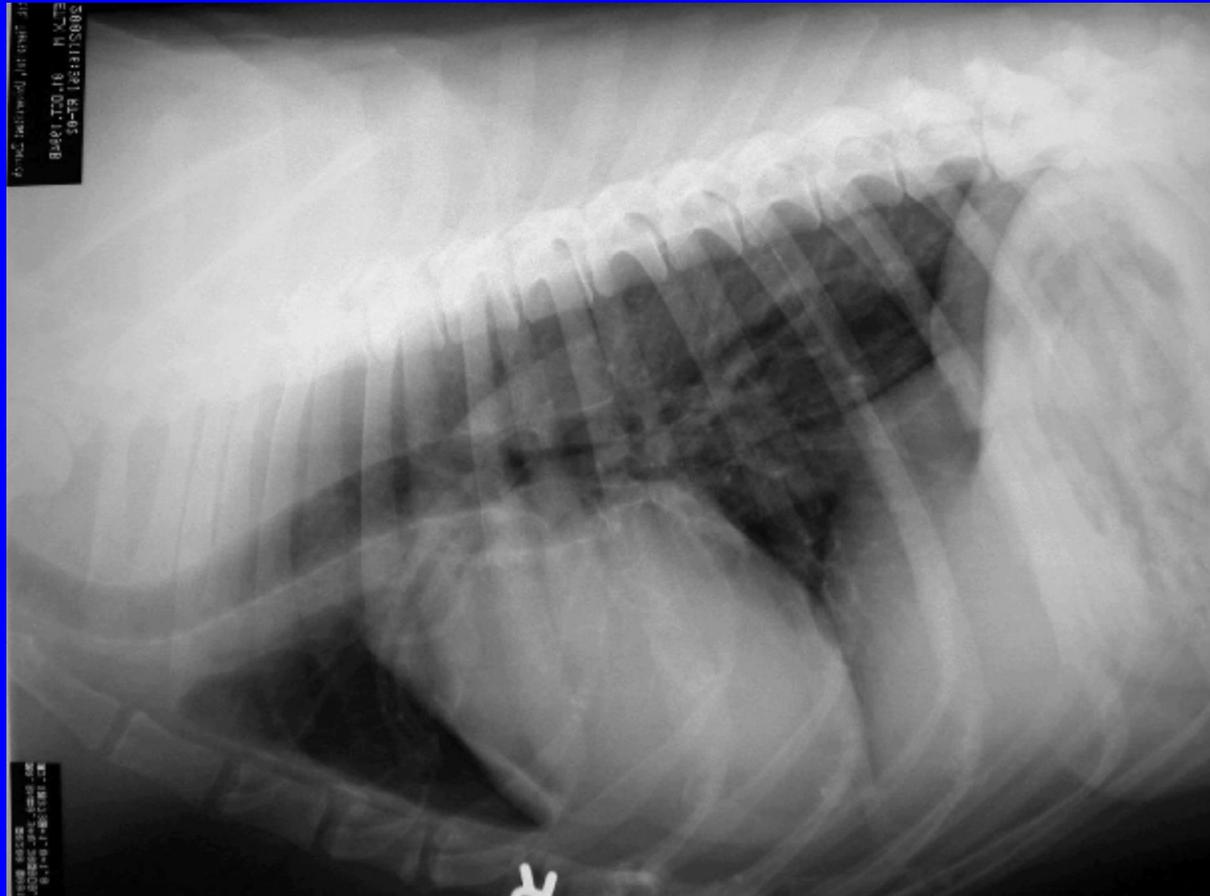
### **Trachea toracica:**

- Deviazione dorsale
- Deviazione ventrale
- Deviazione laterale

# Bulldog inglese, maschio, 2 anni



# Cane meticcio, maschio, anni 9



# Cane meticcio, maschio, anni 11

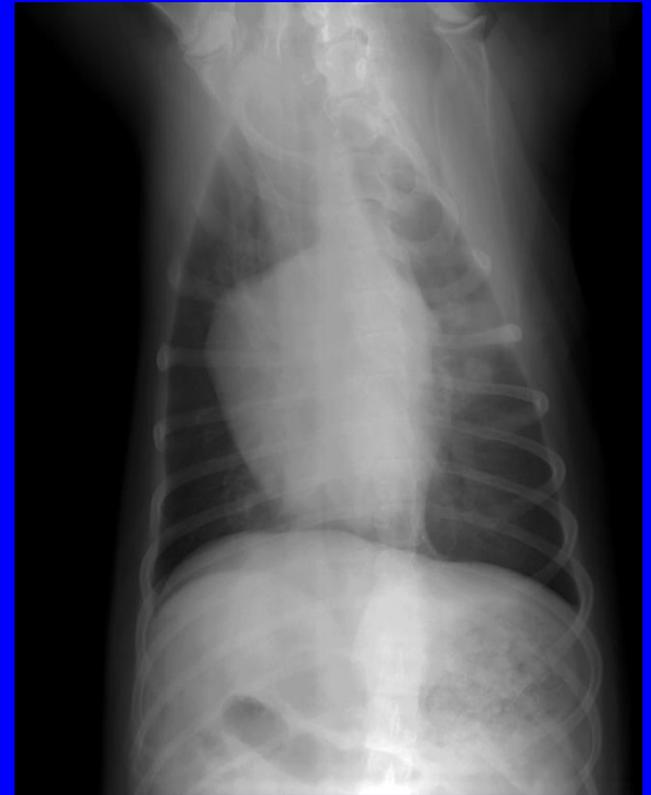


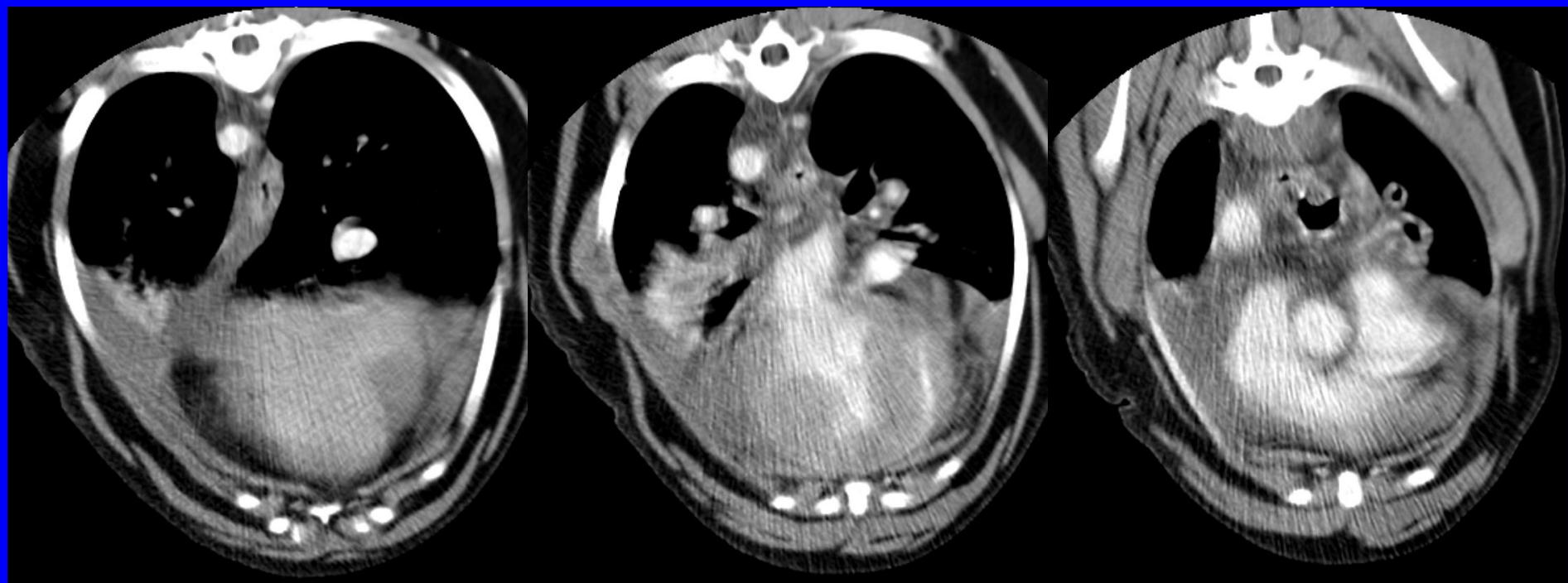
# Gatto Europeo, maschio, anni 3

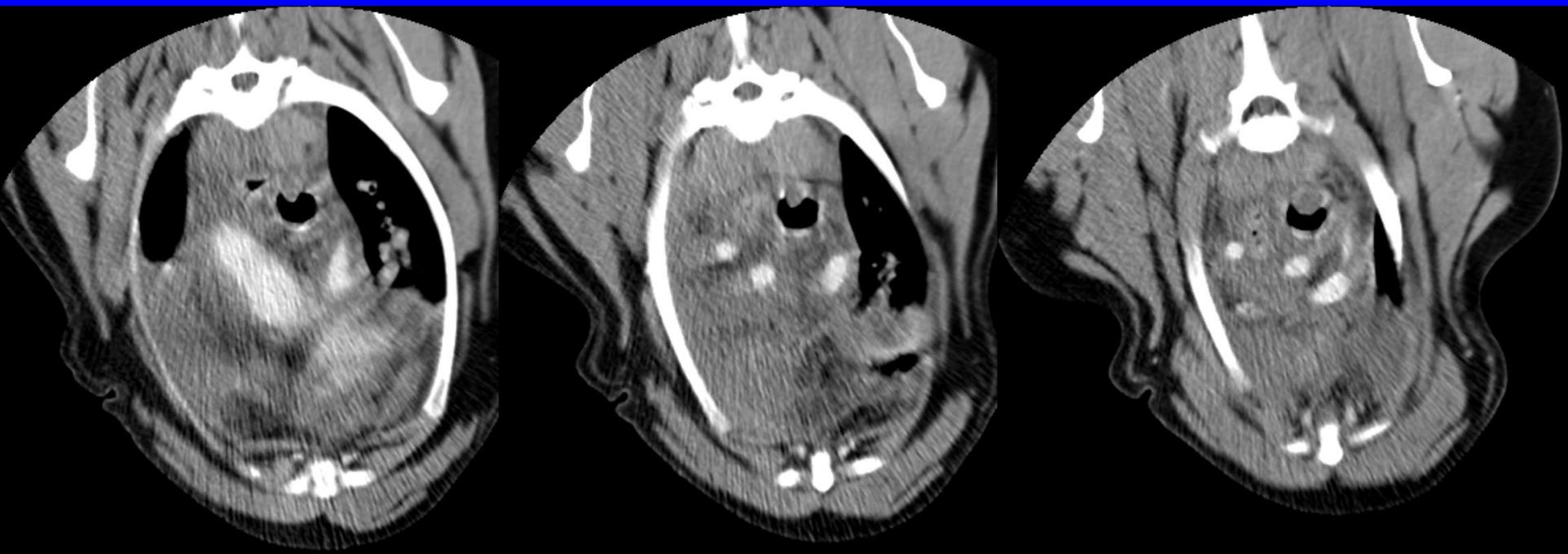




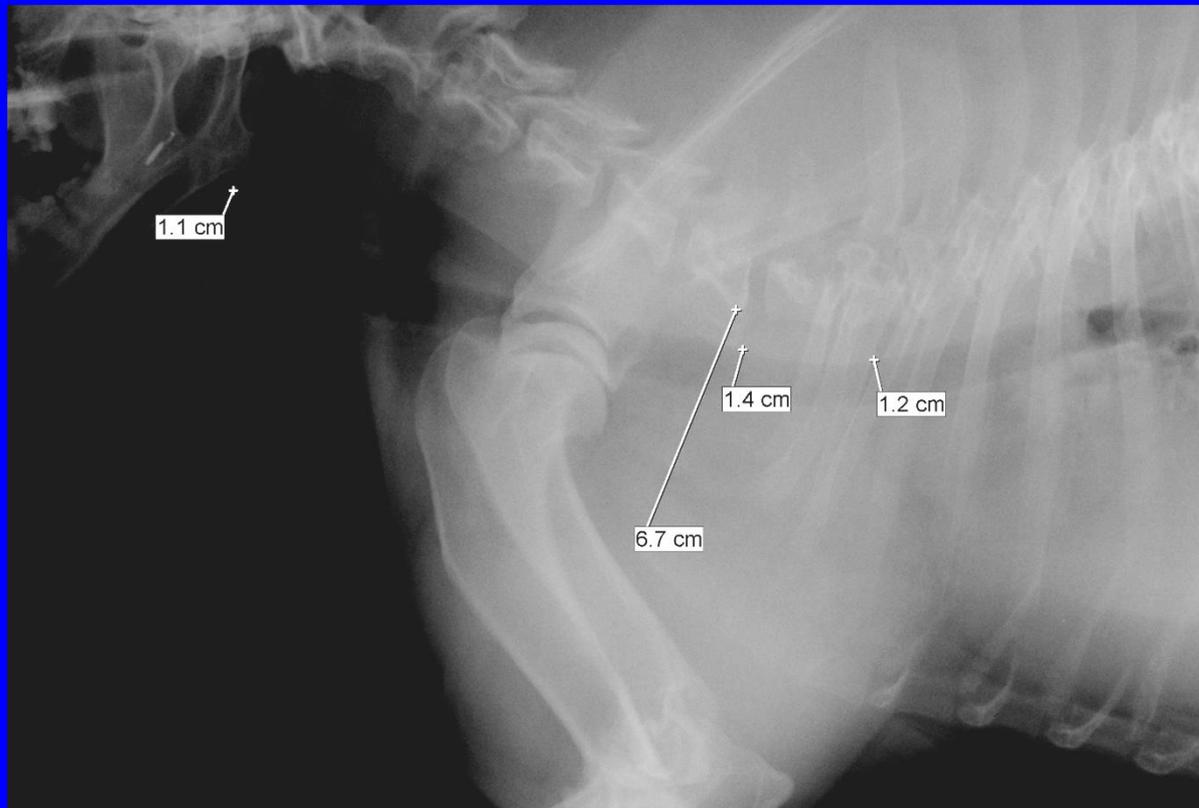
# Cane mix 2a - emorragia pleura/mediastino/trachea

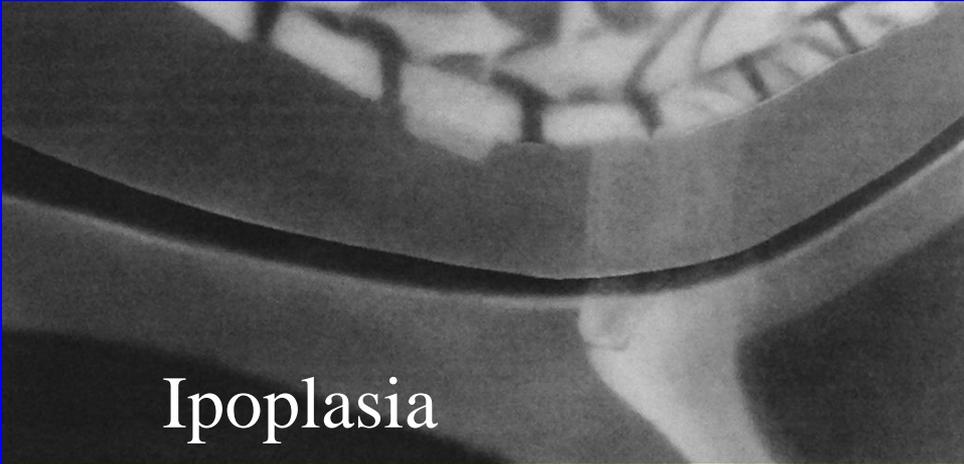






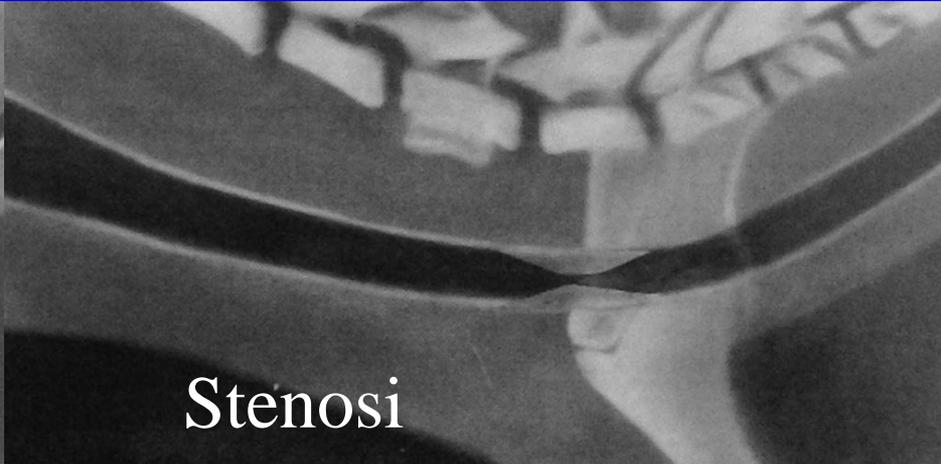
# Ipoplasia — Bulldog inglese, m, 8a





Ipoplasia

A grayscale cross-sectional image of a joint. The articular surface is relatively smooth but appears abnormally thin and slightly irregular in contour. The underlying bone is visible below the articular layer.



Stenosi

A grayscale cross-sectional image of a joint. The articular surface is significantly narrowed and irregular, with a deep, localized indentation. The underlying bone is visible below the articular layer.



Collasso

A grayscale cross-sectional image of a joint. The articular surface is severely flattened and irregular, with a large, deep indentation. The underlying bone is visible below the articular layer.

Owens JM and Biery DN, 1999

# Patologie dinamiche - Collasso tracheale

- Collasso T cervicale caudale – inspiratorio
- Collasso T intratoracico – espiratorio
- Collasso T generalizzato – insp/esp
- **RIPRENDERE DUE PROIEZIONI RX IN**

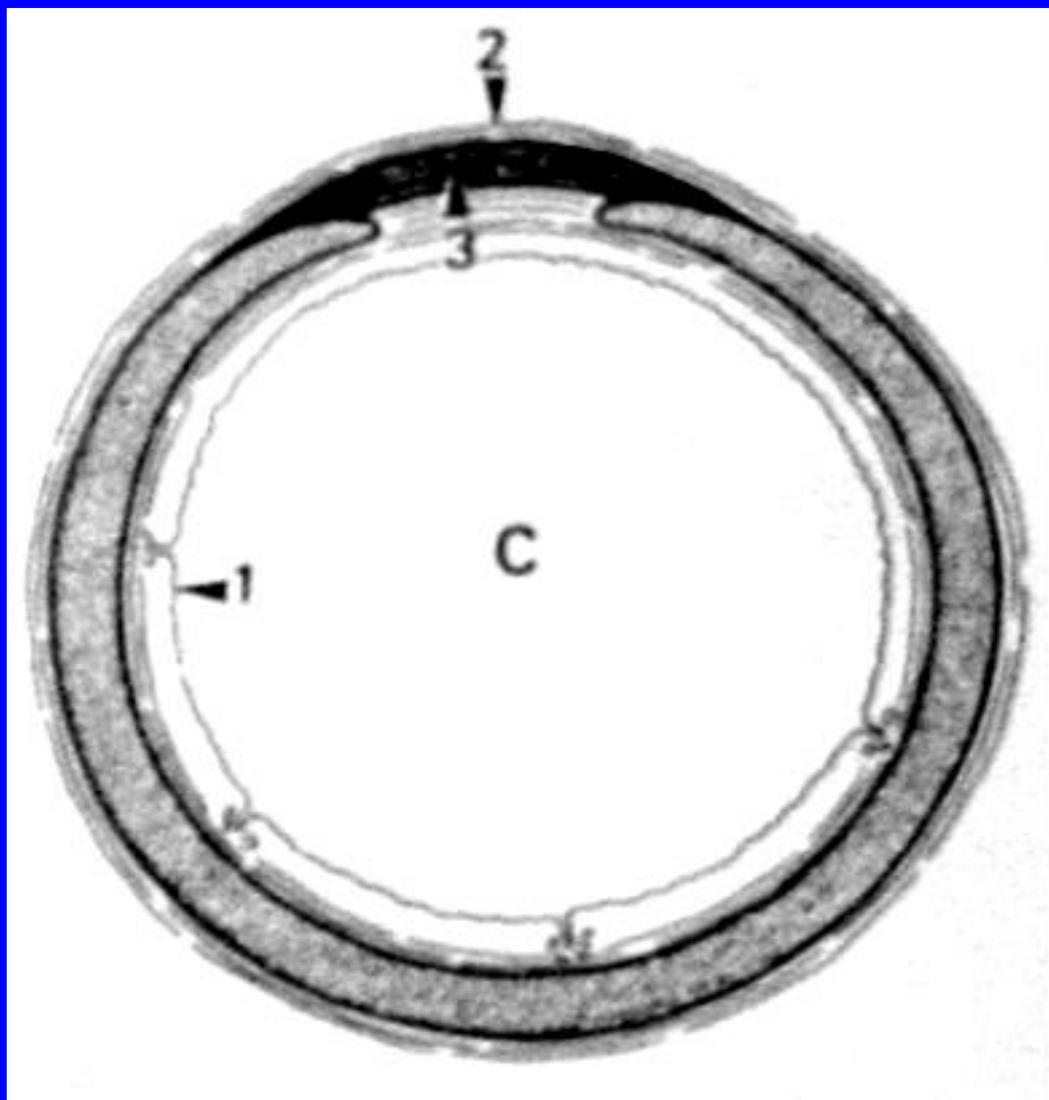
Attenzione agli artefatti:  
iperestensione ed iperflessione  
del collo, obliquità della  
proiezione

!!

Nei casi dubbi utile  
fluoroscopia o  
proiezione  
tangenziale

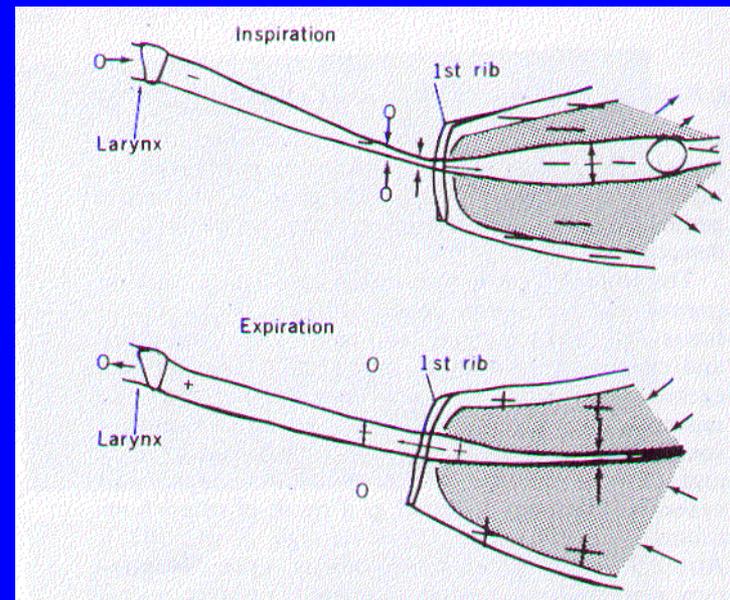
• **malacia - allungamento**  
• **muscolo tracheale e membrana elastica esterna**

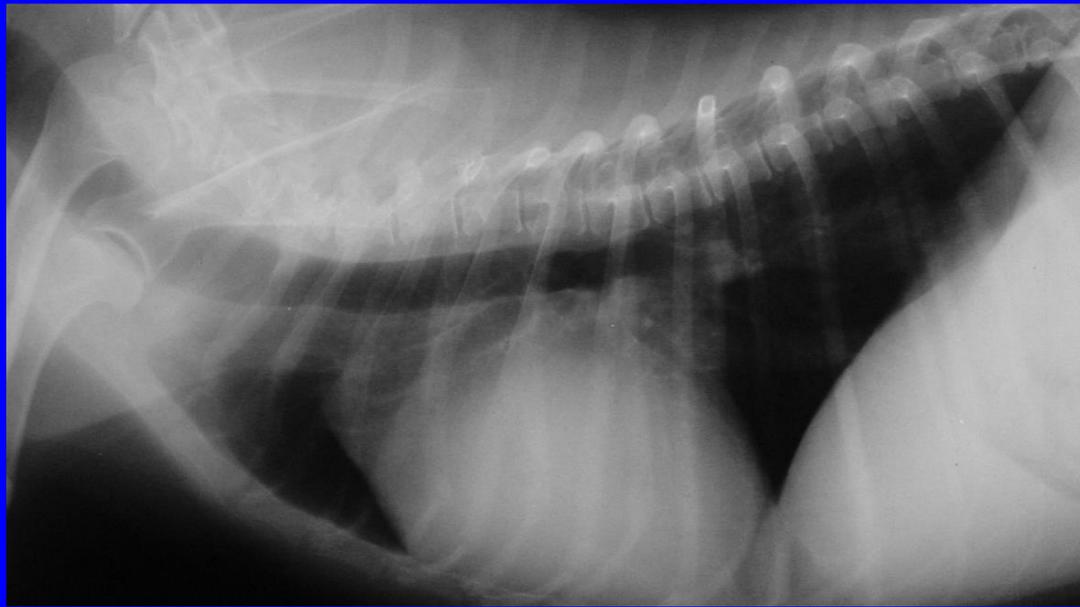
Ricerca sempre patologie associate:  
bronchite, mal. cardiache, obesità,  
epatomegalia, stenosi vie aeree superiori



# Collasso tracheale: esame radiografico

- Proiez. laterale
- Fisiopatologia
- N.B.: nei casi molto gravi non c'è variazione tra insp/esp





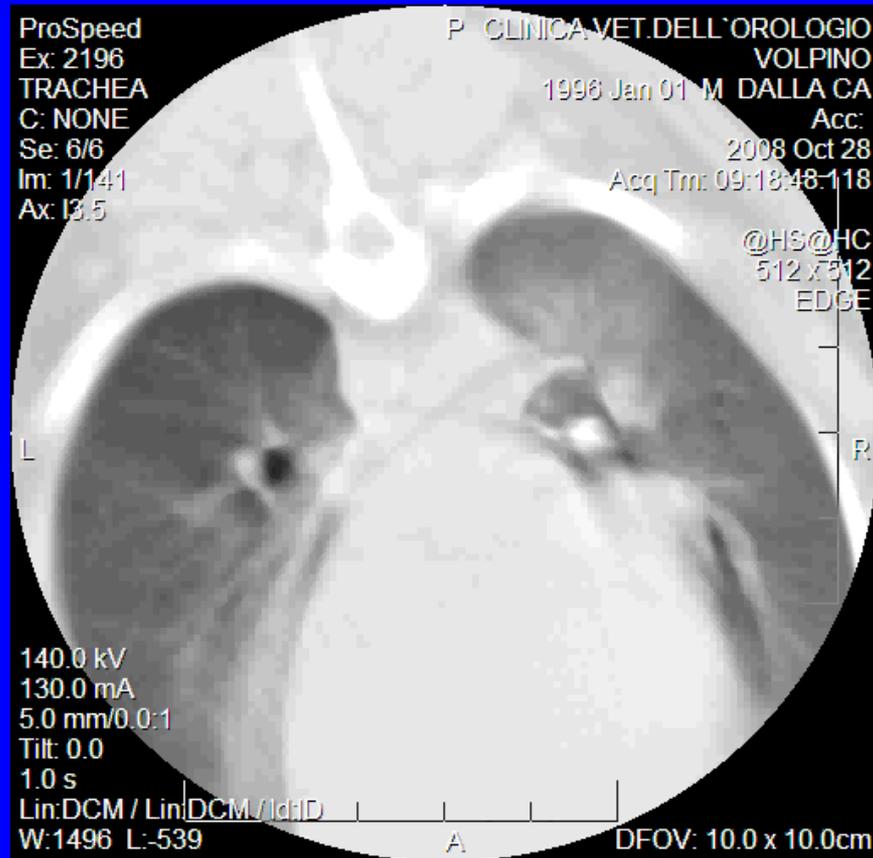
YSM13A



# Collasso tracheale



# Collasso tracheale



# Collasso Bronchiale

