## UAB

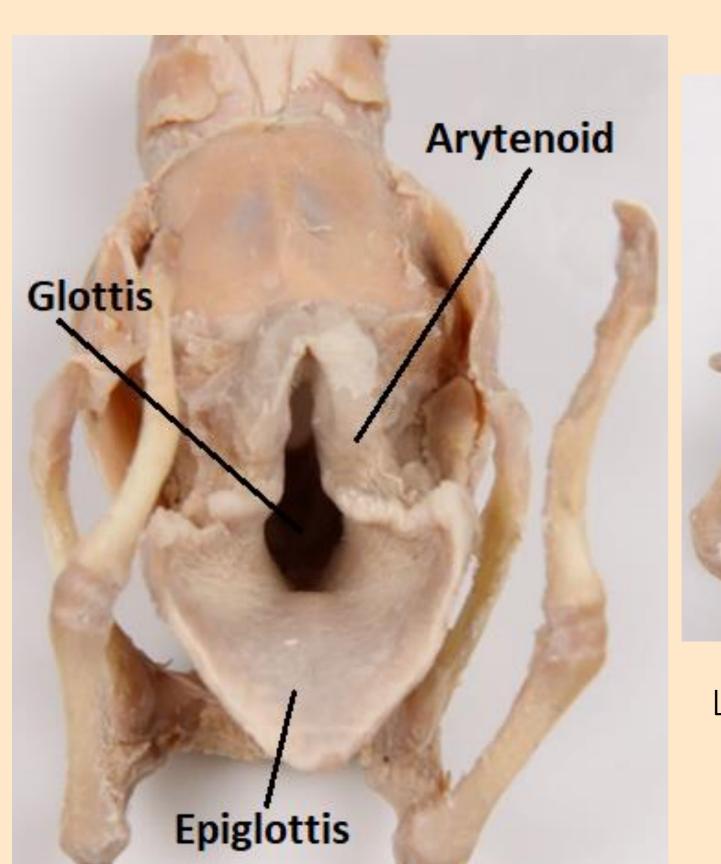
# LARYNGEAL PARALYSIS

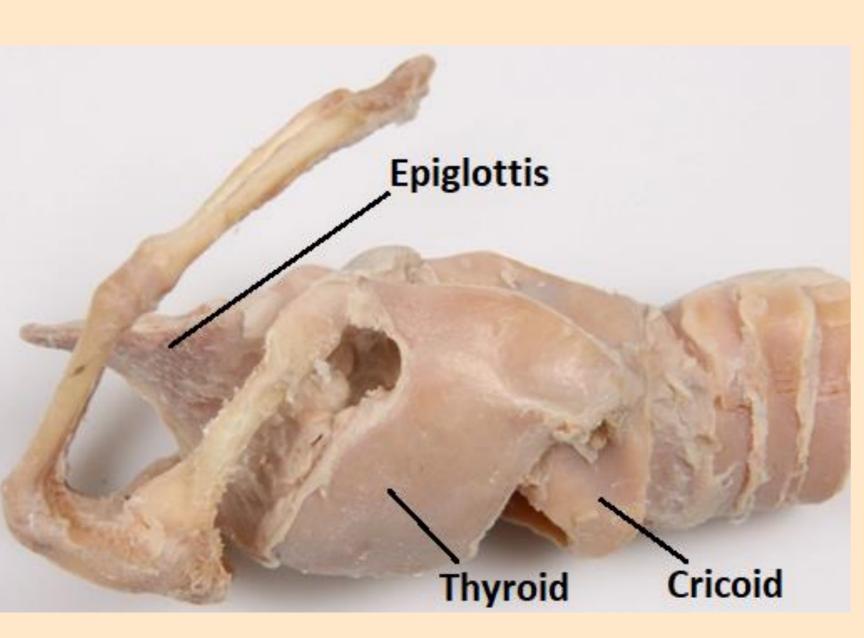
**Universitat Autònoma** de Barcelona

Clara Balada Ibáñez Final degree project – June 2022

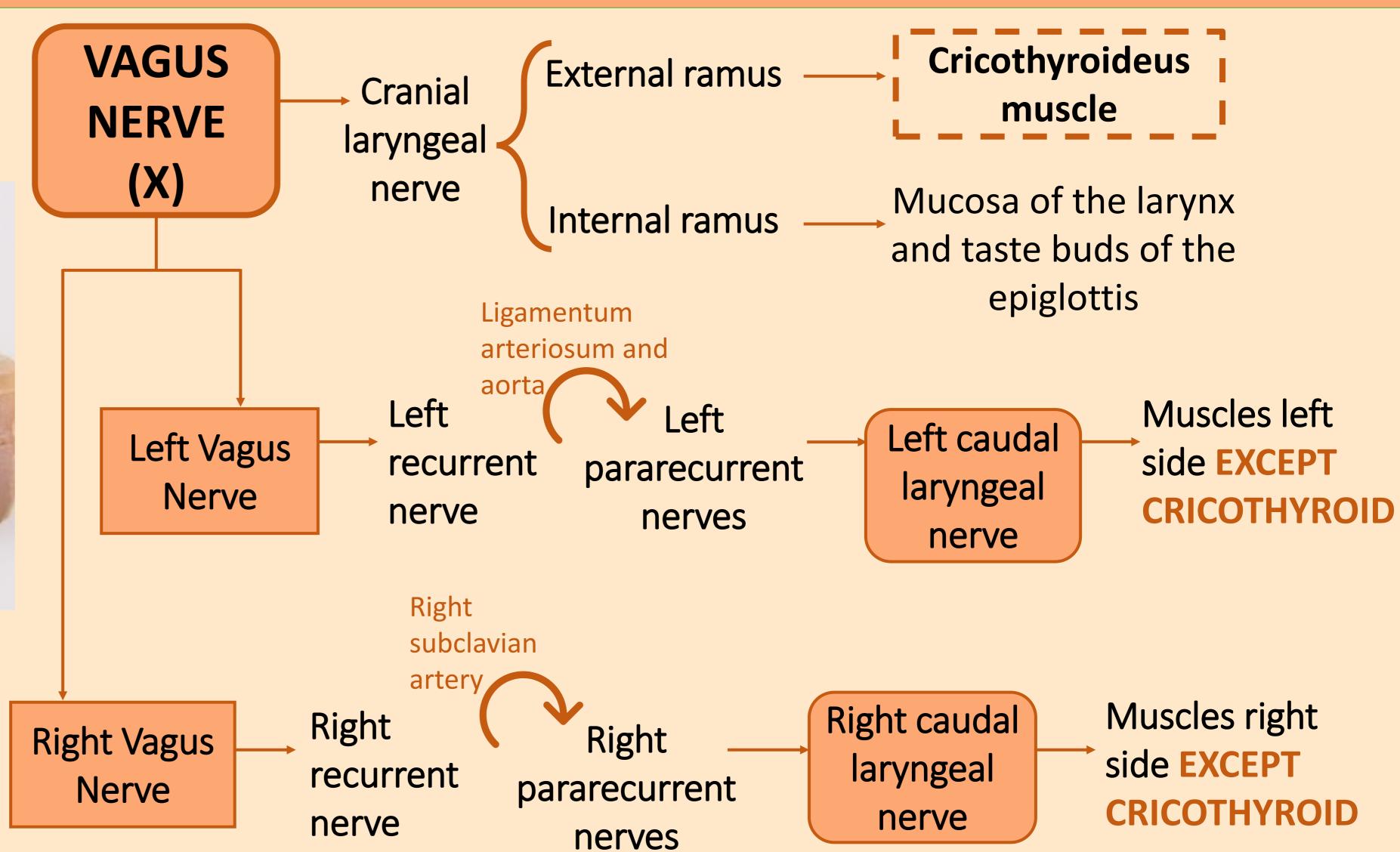








Lateral and craniocaudal views of laryngeal cartilages, anatomical position (Mod. Aige Gil 2022)



### Etiology

Uni/bilateral

Dogs > 9 years, large/giant breeds

#### **ACQUIRED** CONGENITAL Genetic trait Trauma

- - Bouvier des Flandres
  - Siberian Husky\*
  - Bull Terrier\*
  - White German Sheperd\*

#### Polyneuropathy complex

- Dalmatian
- Rottweiler
- Pyrenean Mountain Dog
- Leonberger
- Galgo
- American Staffordshire T. \*

- Accidental trauma
- latrogenic trauma

#### Neuromuscular disease

- Geriatric
- Endocrinopathy (hypothyroidism)
- Immune-mediated
- Myastenia gravis
- Polymyopathy
- Toxin

#### Neoplasia

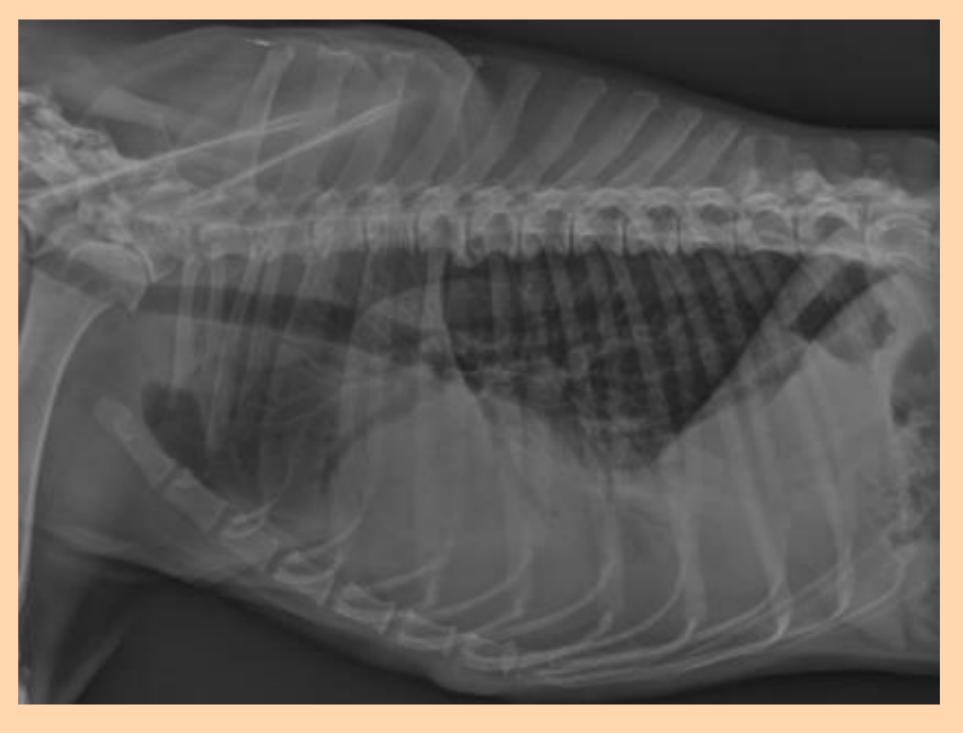
\*Suspected inheritance

### **IDIOPATHIC IN MOST CASES**

### Clinical features

Failure of the arytenoid cartilages to abduct during inspiration  $\rightarrow$  obstruction

- Voice change
- Mild cough
- Retching
- Noisy inspiratory breathing
- Exercise intolerance
- Weakness in hind limbs (peripheral neuropathy)
- Secondary aspiration pneumonia



LL & VD thoracic radiographs of a dog showing a severe alveolar pattern in right lung lobes indicating aspiration pneumonia (MacPhail 2020)

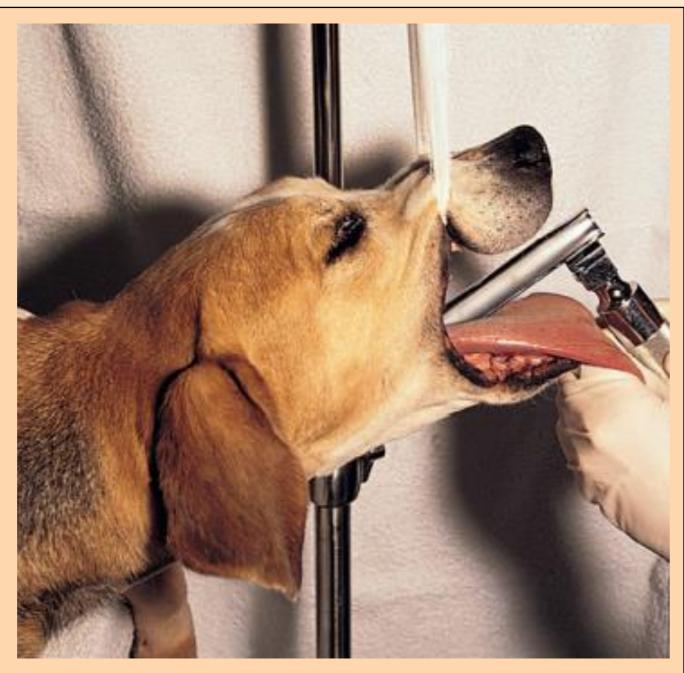


## Diagnosis

Physical and neurologic examination Thoracic radiographs

Laryngeal observation:

- Simple laryngoscope examination under a light plane of anesthesia
- Oral video-endoscopic laryngoscopy
- Transnasal laryngoscopy
- Ultrasonography
- Computed tomography



Dog positioned to visualize the laryngeal motion using a laryngoscope (Nelson and Couto 2019)

### Treatment

- Unilateral arytenoid lateralization
- Partial arytenoidectomy
- Permanent tracheostomy





Unilateral arytenoid lateralization technique (Aige 2022)

Laryngeal inspection in affected dog. Pre (a) and post (b) unilateral arytenoid lateralisation (Kitshoff et al. 2013)

## Conclusions

- Idiopathic laryngeal paralysis can be part of a generalized **neuromuscular disorder**  $\rightarrow$  neurologic examination.
- Genetic trait in some breeds but idiopathic in most cases.
- Laryngeal examination with a simple laryngoscope it is considered the gold standard of diagnosis.
- Unilateral arytenoid lateralization is the surgical technique most commonly used to treat laryngeal paralysis. The main postoperative complication associated with laryngeal paralysis surgery is aspiration pneumonia.