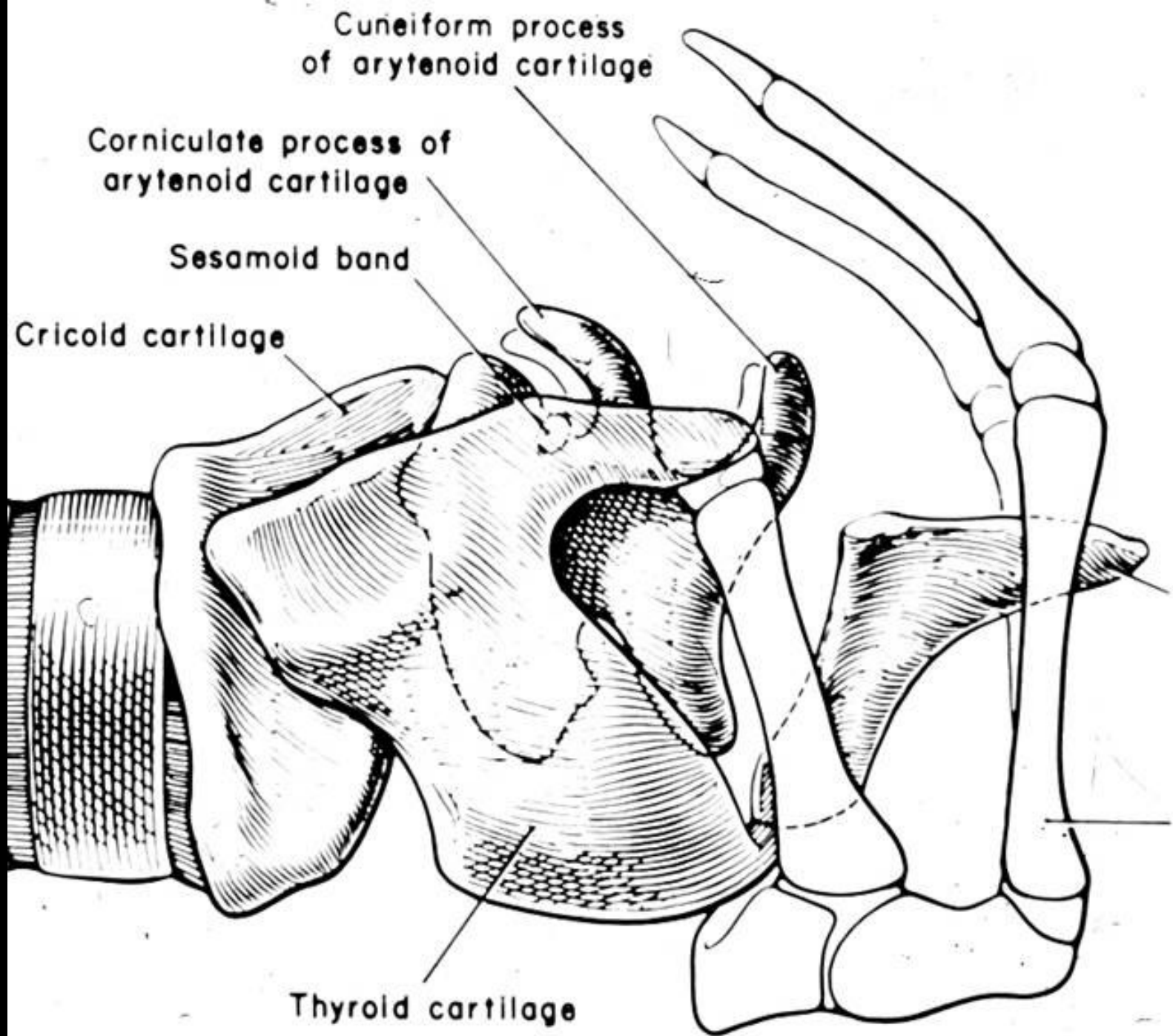
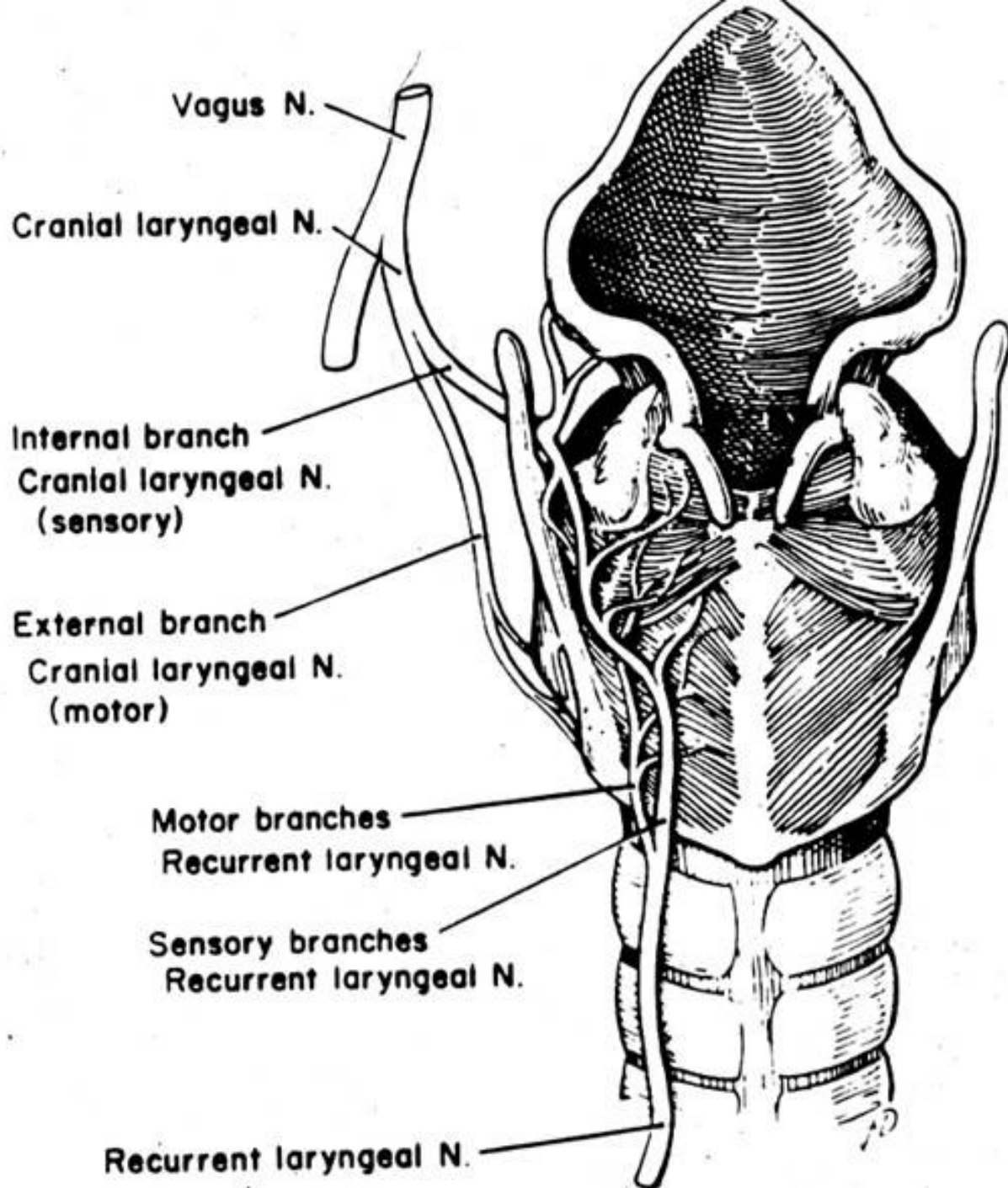


LARYNGEAL PARALYSIS



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Larynx Anatomy and Physiology

- Active abduction during inspiration
- Closure during swallowing
- Voice





Laryngeal paralysis

- Absence of abduction of the arytenoid cartilages in inspiration
- Unilateral vs bilateral
- Augmentation of airway resistance in inspiration



Laryngeal paralysis: Etiology

- Neurologic: Central lesion
 - Congenital
 - Bouvier des Flandres
 - Husky
 - Rottweiler
 - Dalmatian



Laryngeal paralysis: Etiology

- Neurologic: Peripheral lesion
 - Trauma
 - Neuropraxia
 - Iatrogenic
 - Tumor
 - Mediastinum

Laryngeal paralysis: Etiology

- Polyneuropathy
 - Neuroendocrine
 - Hypothyroidism ?
 - Infectious
 - Immune disease
 - Idiopathic:
 - Large breed dog





Laryngeal paralysis: Etiology

- Myopathy
 - Myasthenia gravis

Laryngeal paralysis

- Unilateral
- Bilateral





Laryngeal paralysis

- Acute

- Collapsing
- Noisy breathing
- Airway obstruction
- Pulmonary edema
- Heat stroke

- Chronic

- Exercise intolerance
- Syncope
- Noisy breathing
- Altered vocalization



Laryngeal paralysis

- Inspiratory stridor
- Inspiratory obstructive dyspnea



Laryngeal paralysis

- Cough
- Gagging when eating and drinking

Laryngeal paralysis

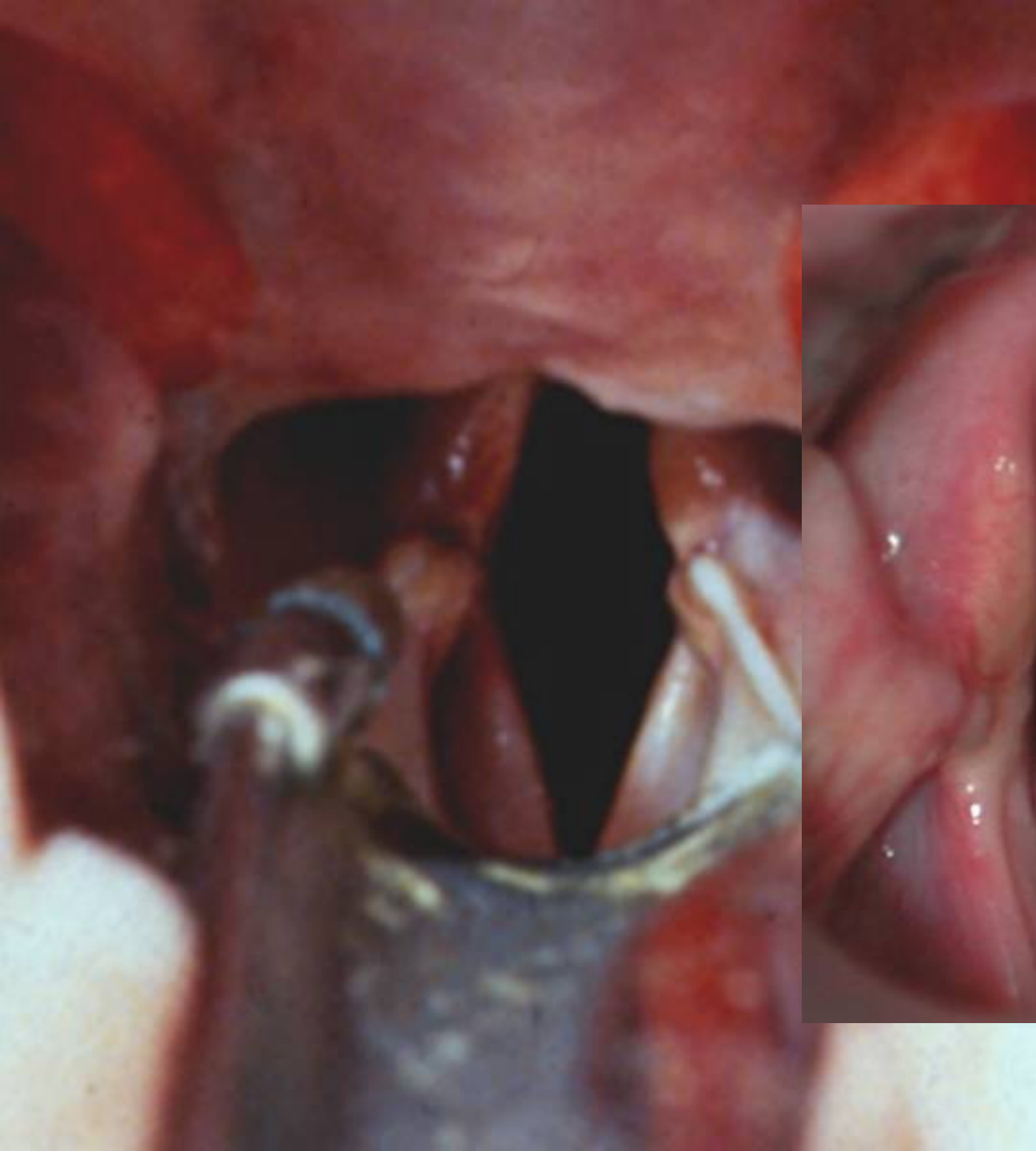
- Laryngeal exam
- Light sedation
 - Propofol
 - Dopram





Laryngeal paralysis

- Failure of abduction in inspiration
 - Bilateral
- Erythema and edema of rima glottis







QuickTime™ and a Sorenson Video decompressor are needed to see this picture.

Laryngeal paralysis: Diagnosis



- Neurologic examination
 - Polyneuropathy
 - Polymyopathy

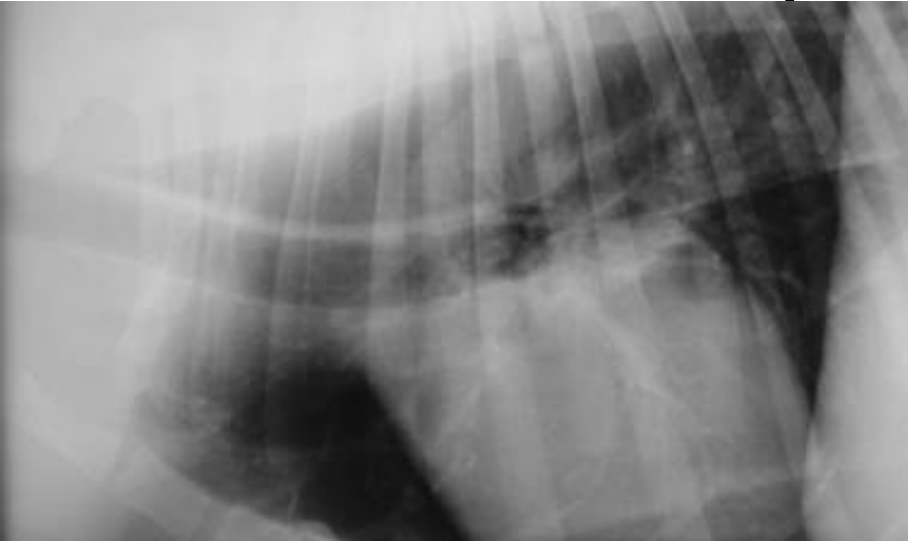
Laryngeal paralysis: Diagnosis

- Endocrine function
 - Hypothyroidism



Laryngeal paralysis: Diagnosis

- Thoracic radiographs
 - Megaesophagus
 - Aspiration pneumonia
 - Pulmonary edema





Laryngeal paralysis

- Treatment
 - Medical ?
 - Surgical ?



Laryngeal paralysis

- Treatment
 - Medical
 - Emergency
 - Short term
 - Surgical
 - Long term



Laryngeal paralysis

Medical treatment: emergency

- Rest
- Supplemental oxygen
- Dexamethasone: 1mg/kg intravenously
- Acepromazine
- Cooling



Laryngeal paralysis

Medical treatment: emergency

- Endotracheal intubation
- Temporary tracheostomy
 - Poor prognosis
 - HR: 9 Complication
 - Emergency surgery



Laryngeal paralysis

Surgery treatment

- Arytenoid lateralization
- Ventriculocordectomy + partial arytenoidectomy
 - Oral cavity
 - Ventral laryngotomy
- Permanent tracheostomy

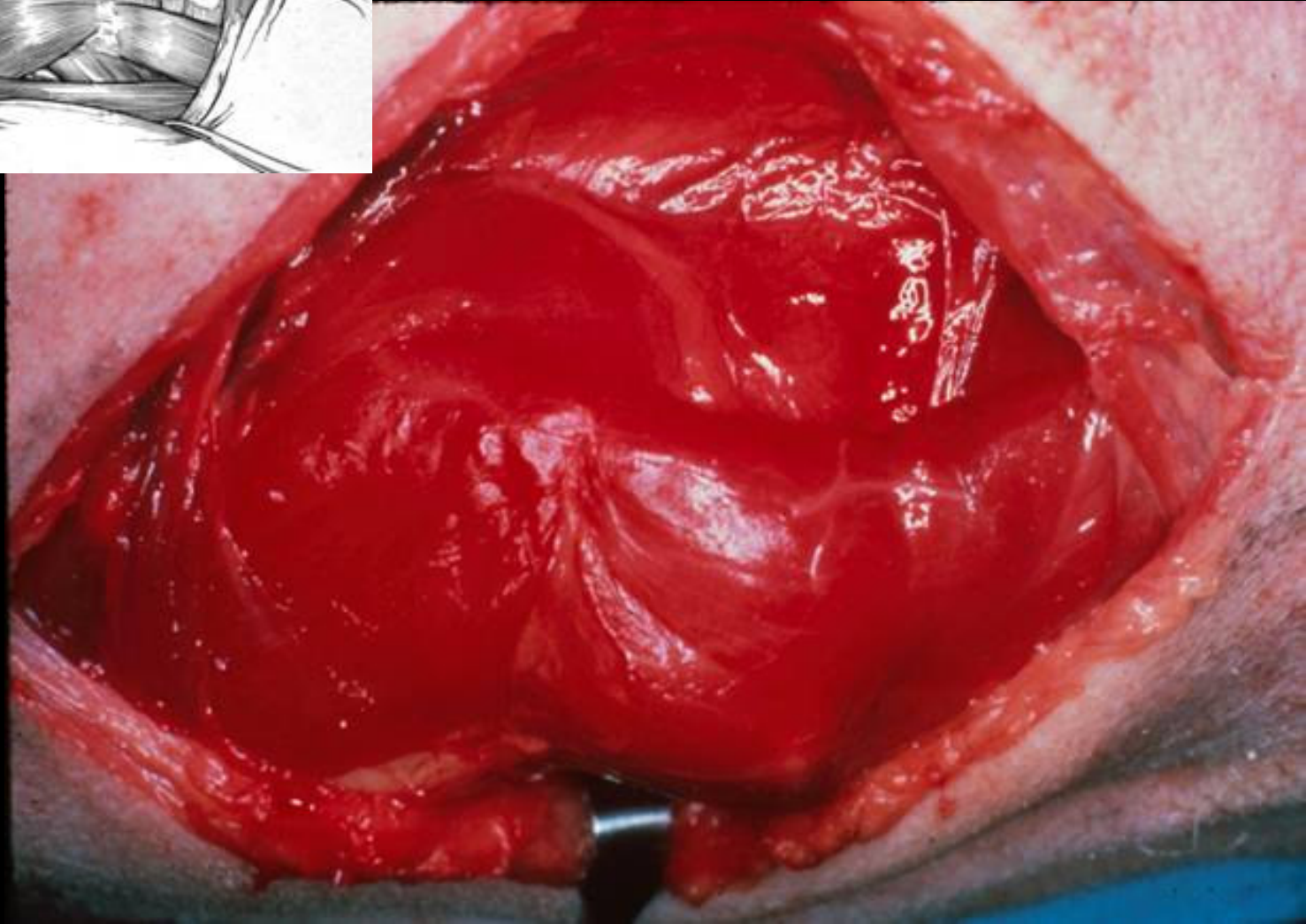
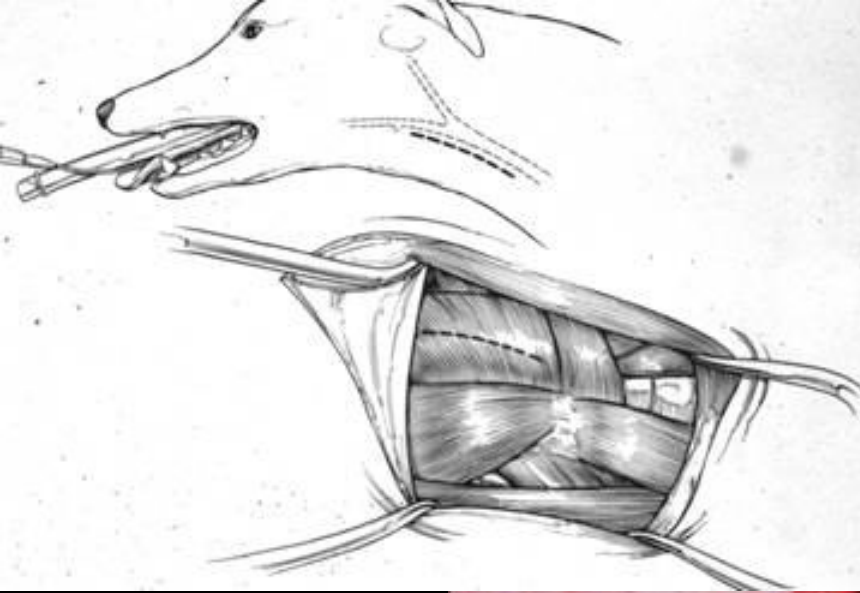


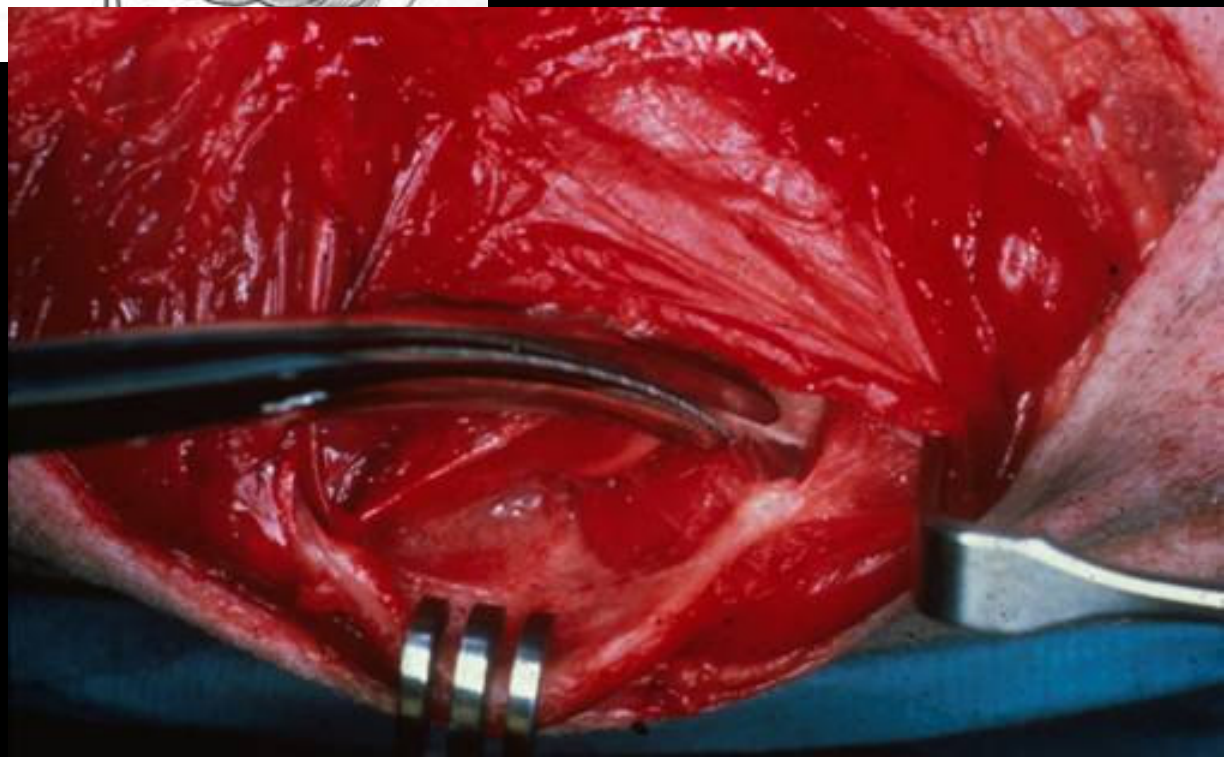
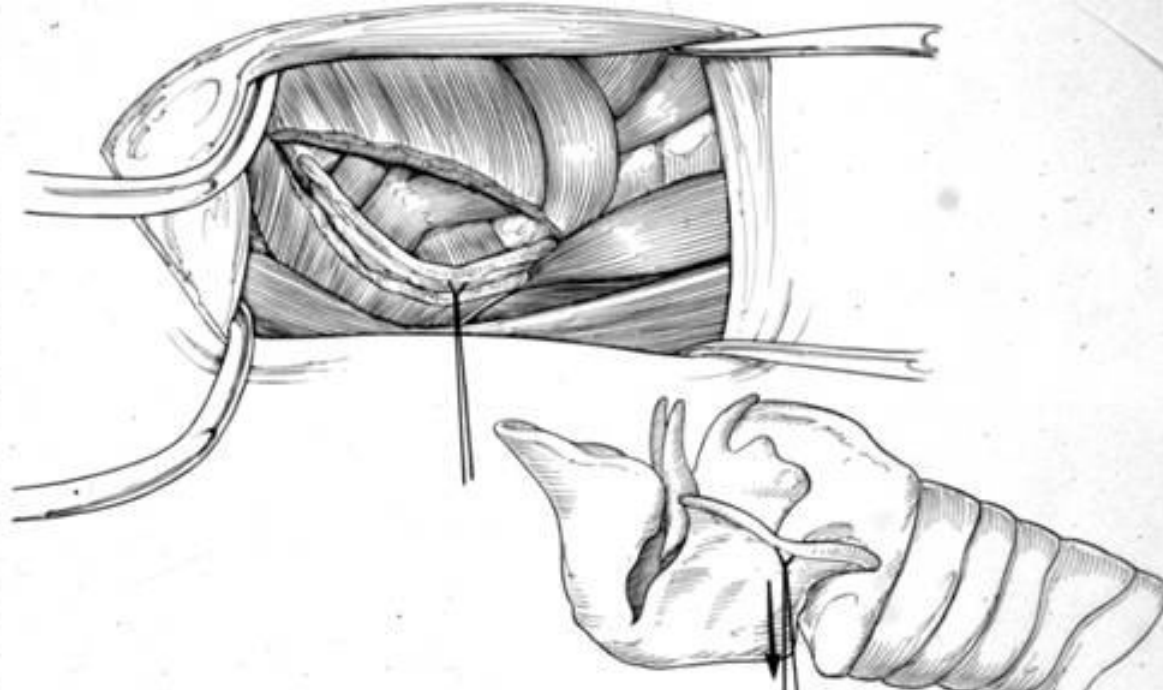
Laryngeal paralysis

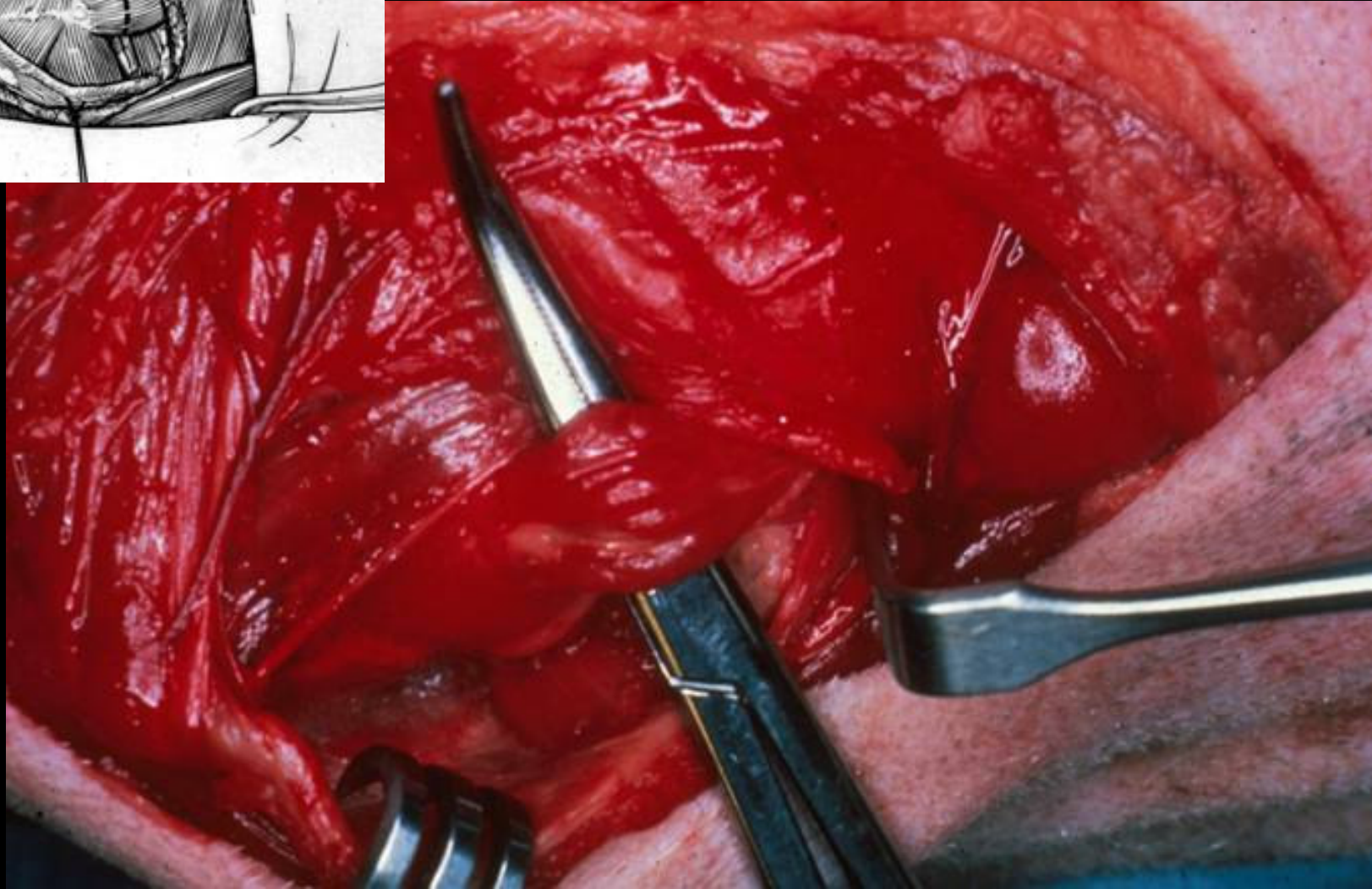
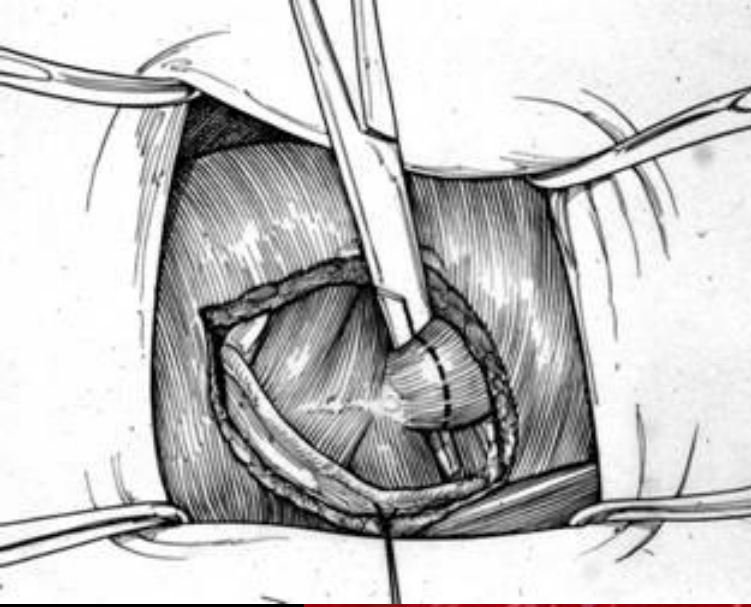
Arytenoid lateralization

- Unilateral Vs bilateral
 - Diameter of rima glottidis
 - Aspiration pneumonia
- Anatomically challenging
 - Lateral vs Dorsal recumbency

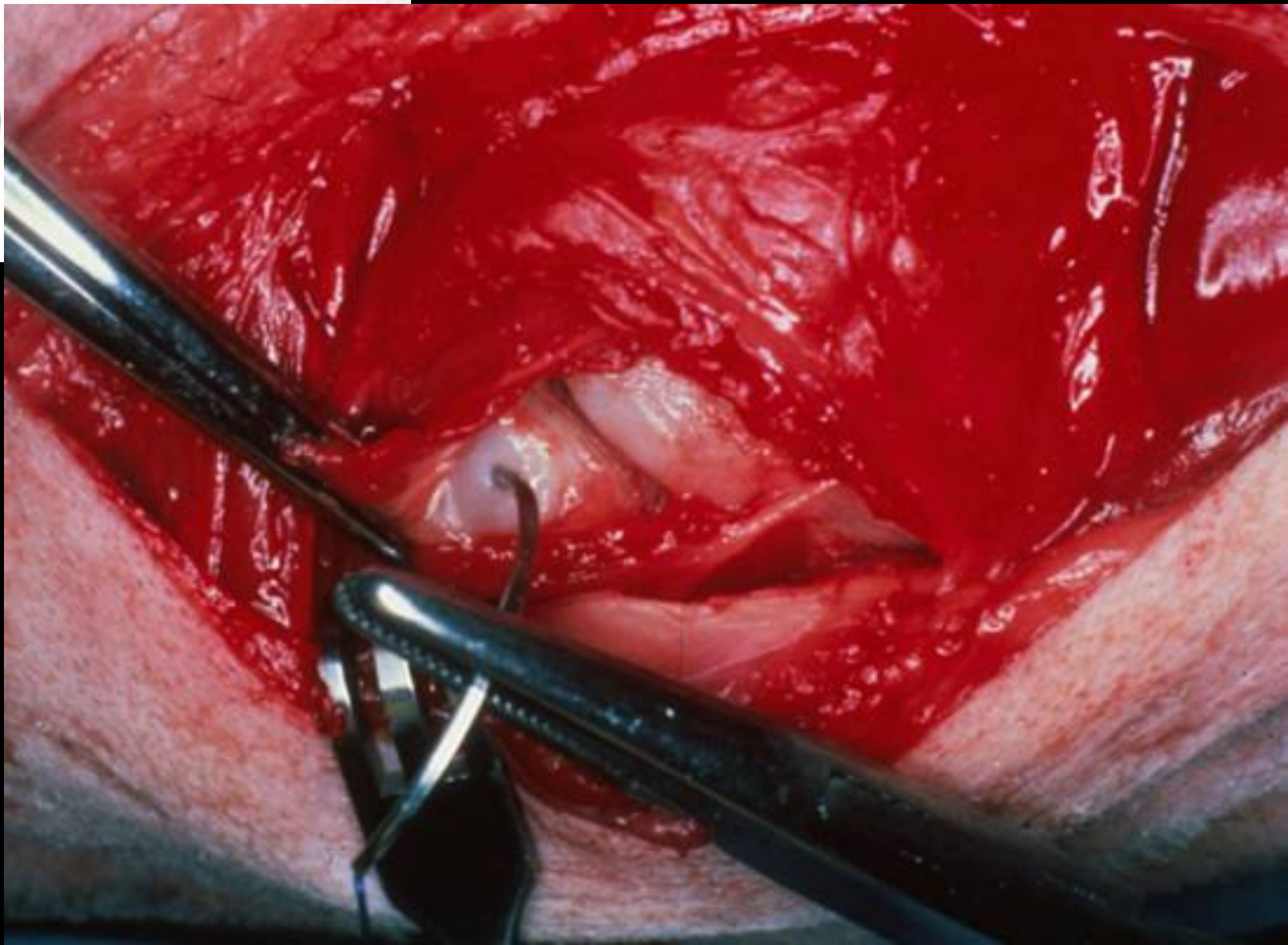
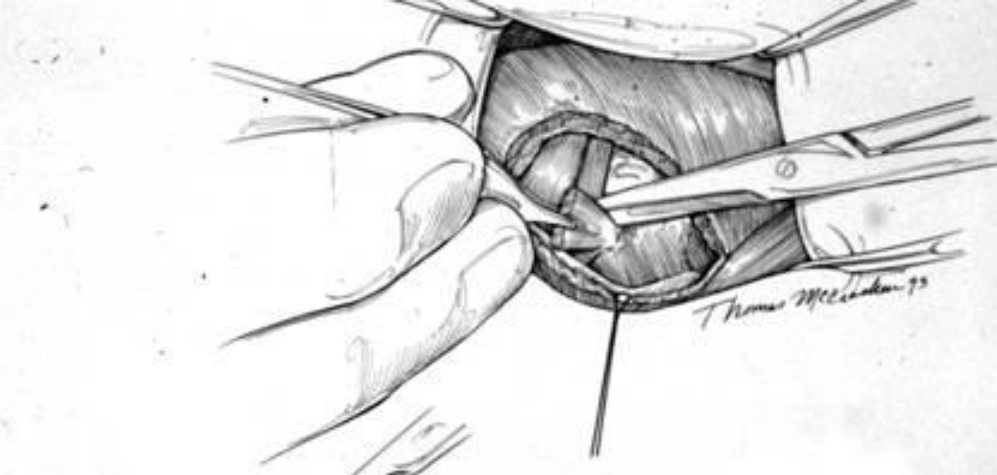


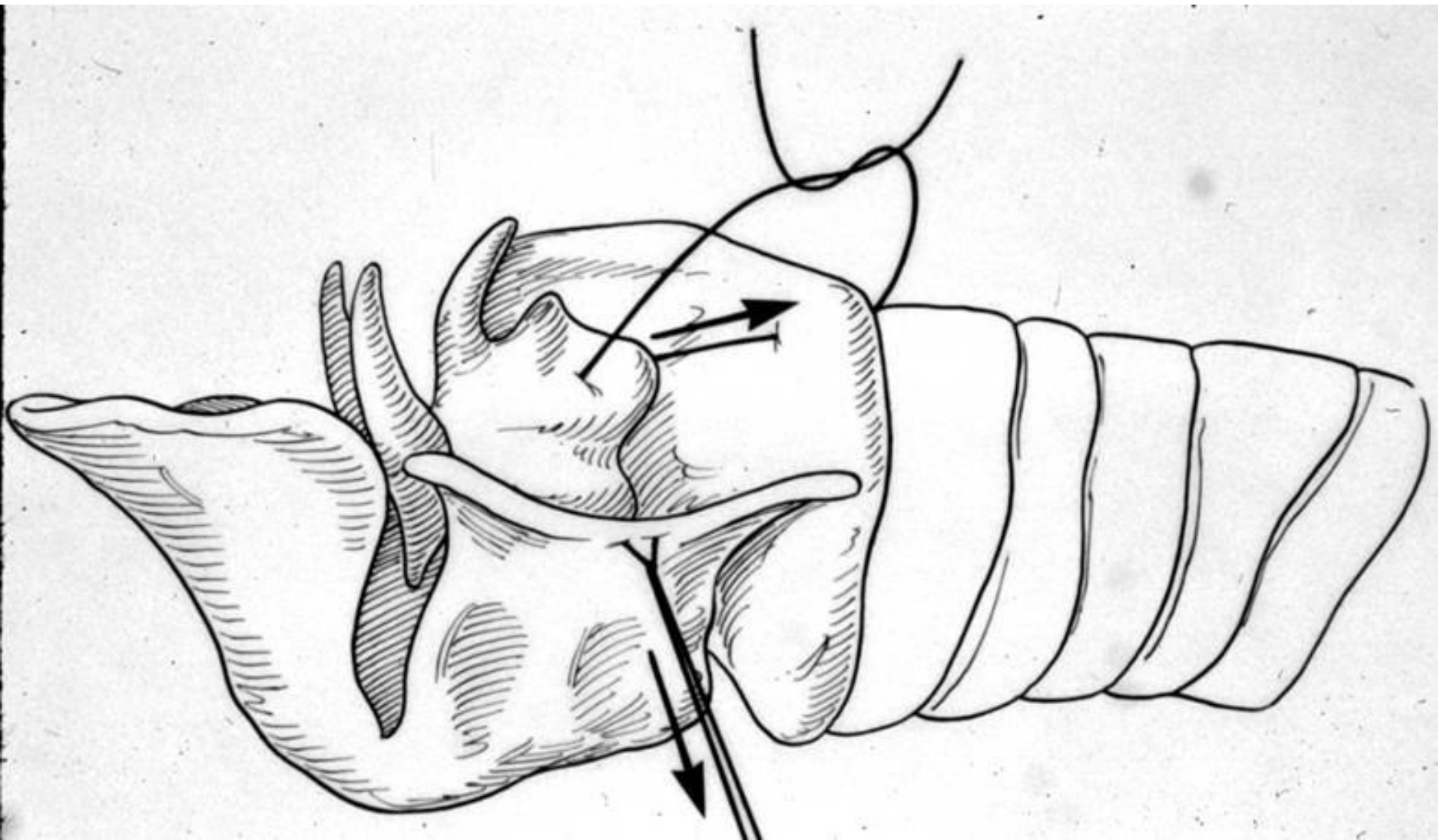






2-0 monofilament
Non absorbable



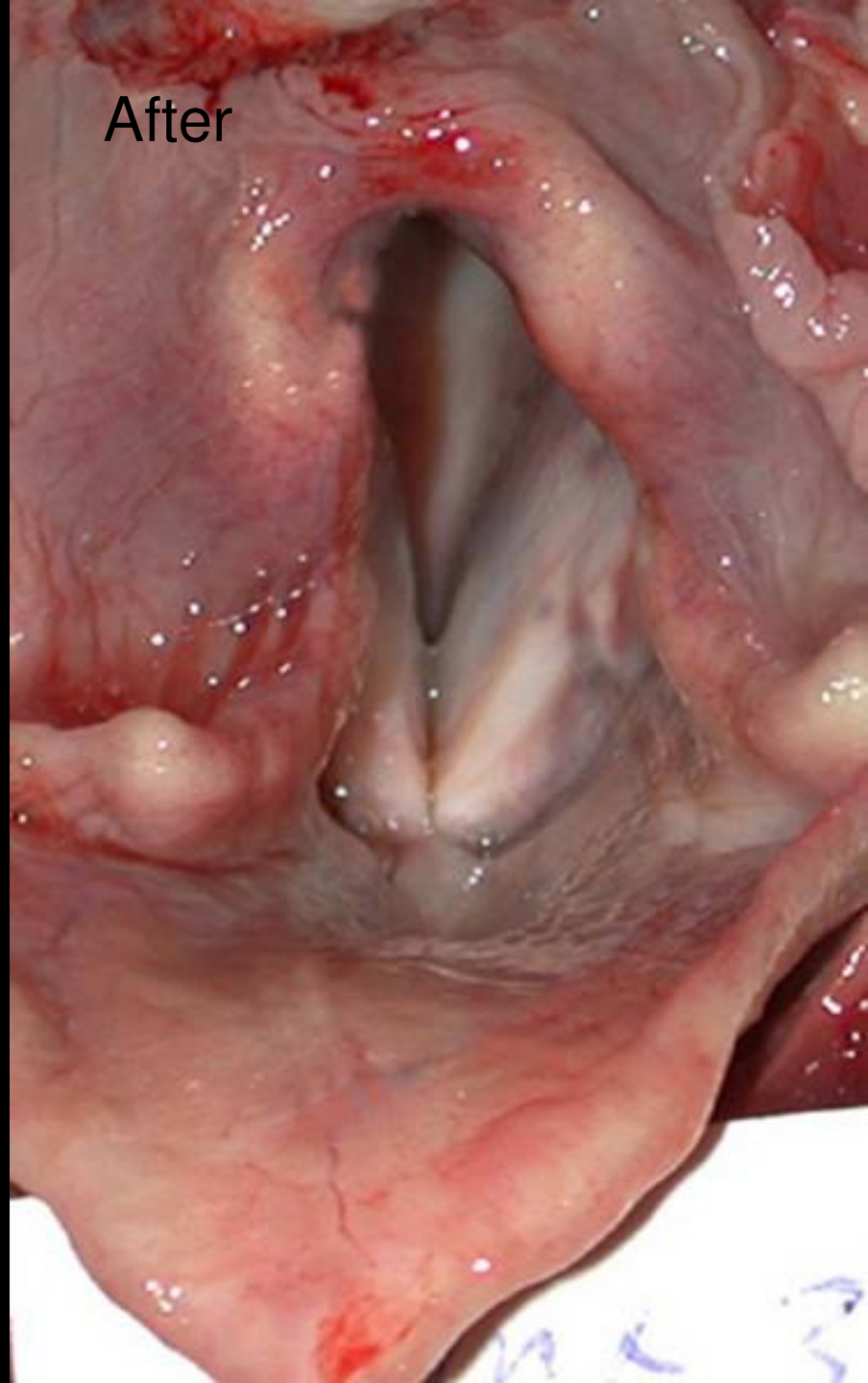


2-0 monofilament
Non absorbable

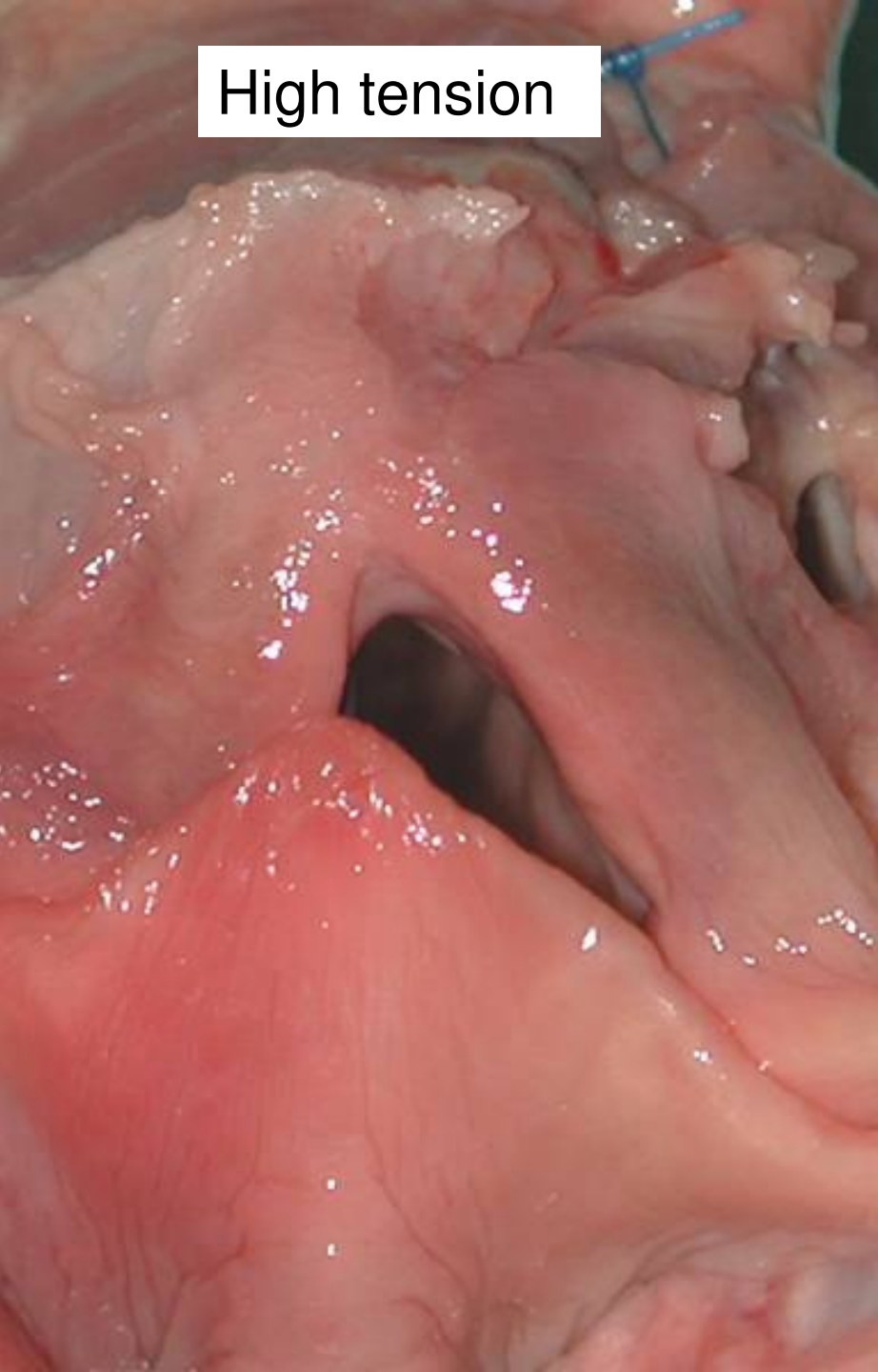
Before



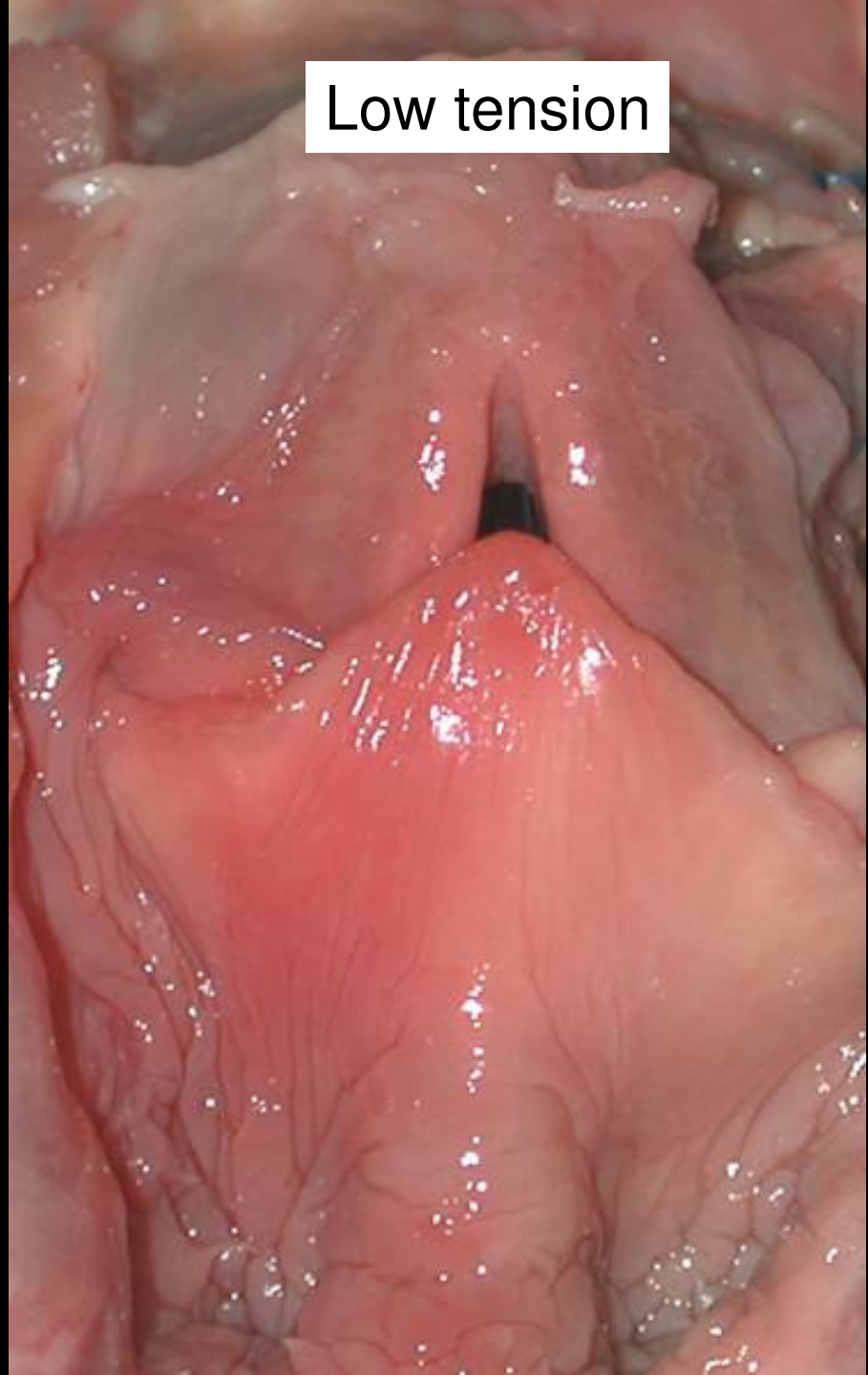
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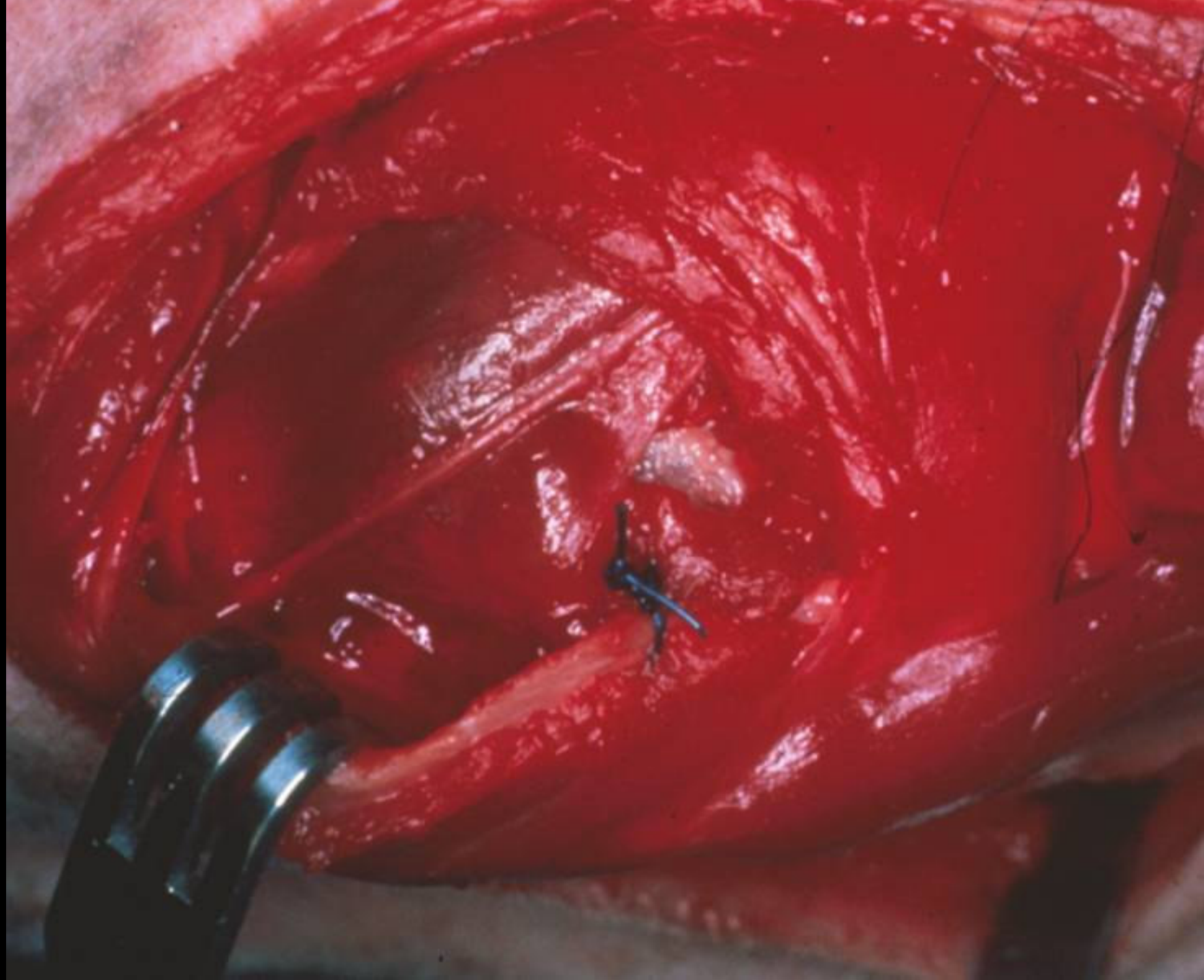


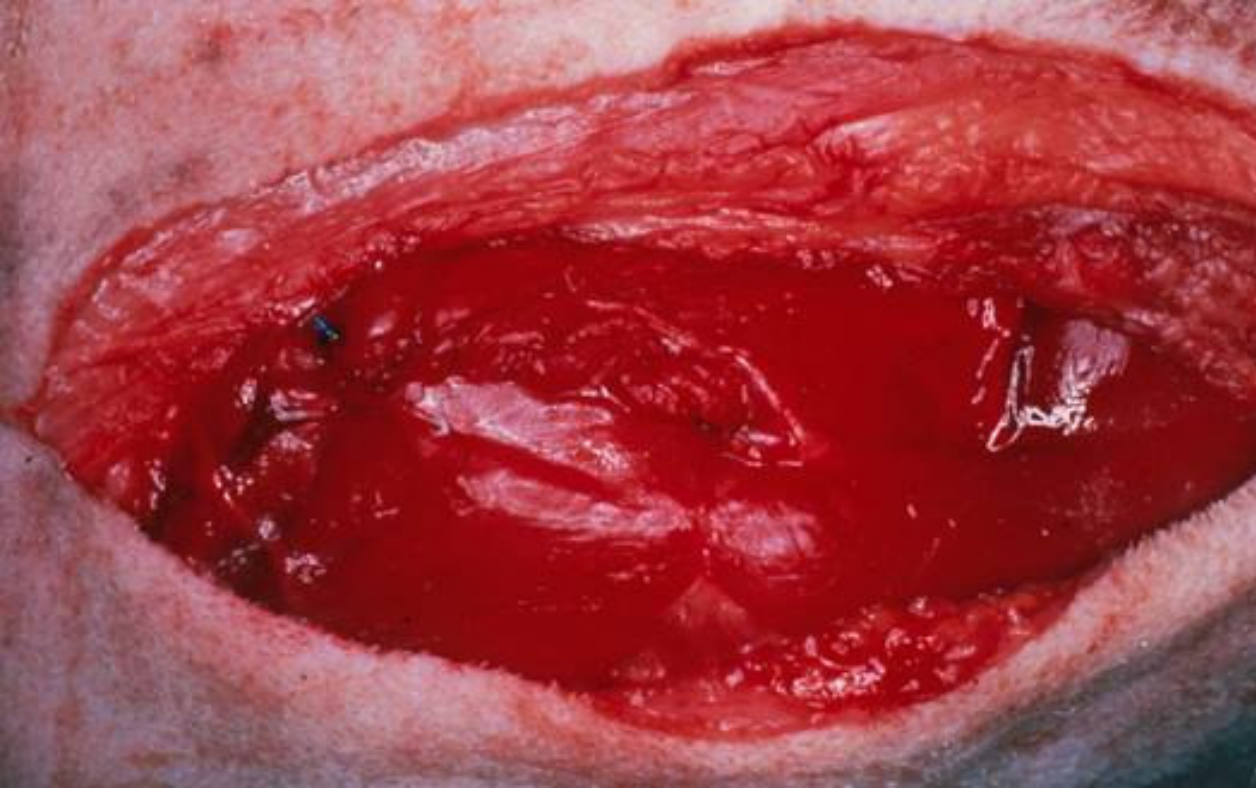
High tension



Low tension







- Local block
Bupivacaine: 1.5
mg/kg





Laryngeal paralysis

Arytenoid lateralization

- Prevention of aspiration pneumonia
- Lateral recumbency
 - Elevate head
- Limited amount of opioid
 - Sternal recumbency
- Metoclopramide
 - 2mg/kg/day IV



Laryngeal paralysis

Arytenoid lateralization

- No food or water until awake
- Meat ball under close supervision
- Water



Laryngeal paralysis

Arytenoid lateralization

- Good to excellent results
 - Unilateral
 - 90 % to 100% good results



Laryngeal paralysis

Arytenoid lateralization

- Complications
 - Seroma
 - Voice change
 - Recurrence
 - Suture

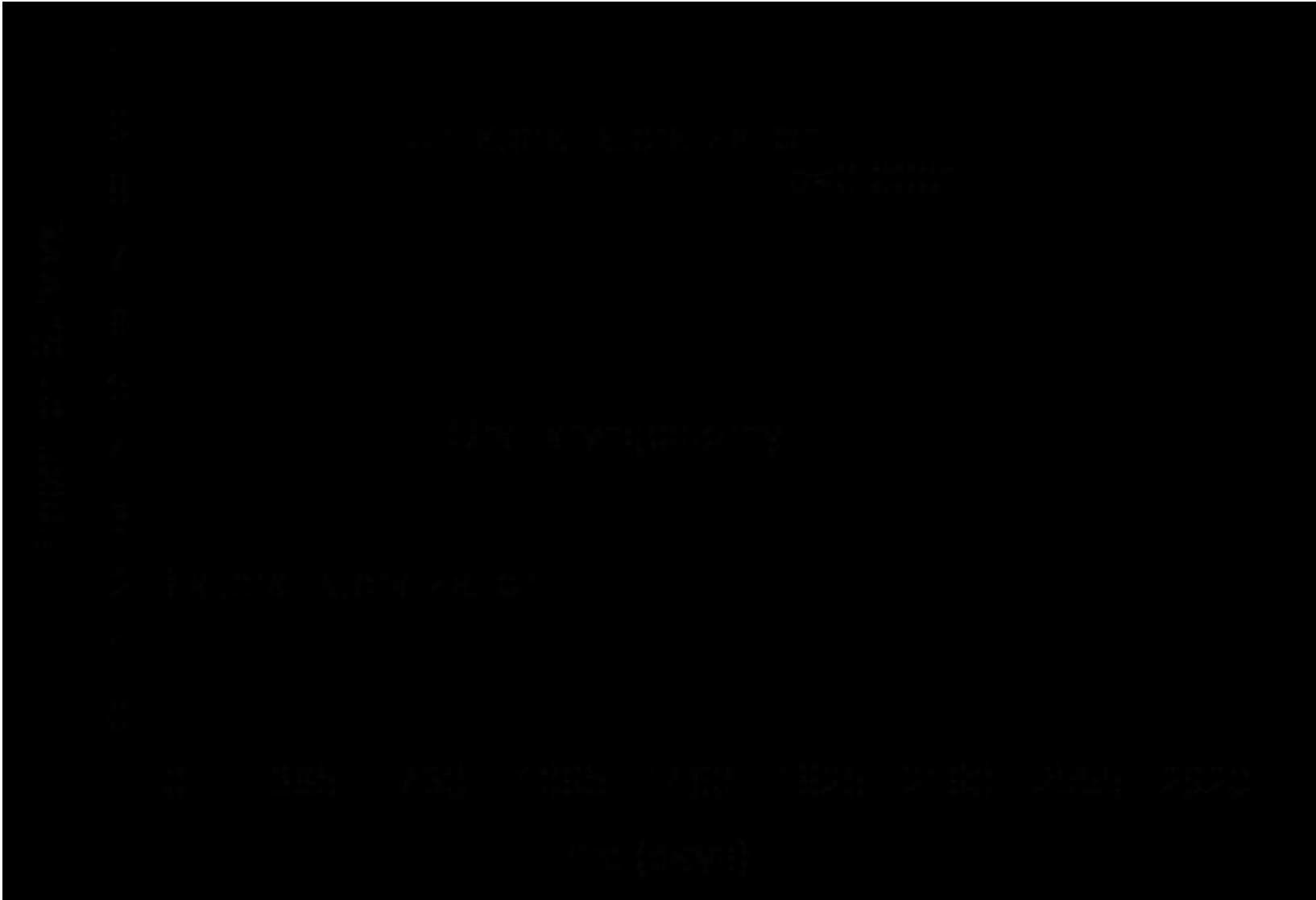
Prevention Complication From

10/10/2017

10/10/2017

10/10/2017

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Laryngeal paralysis

Arytenoid lateralization

- Complications
 - Aspiration pneumonia
 - 10 - 20% of cases
 - Megaesophagus
 - Temporary tracheostomy





Laryngeal paralysis

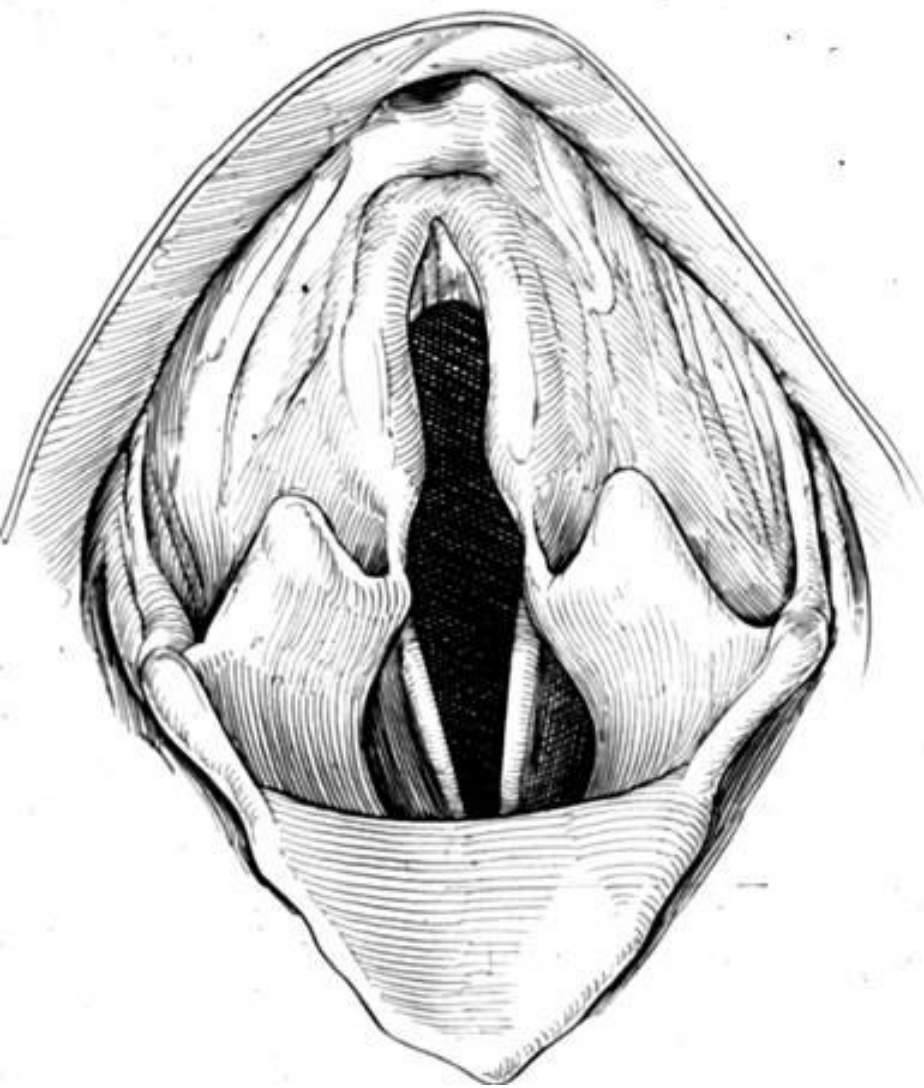
Surgery treatment

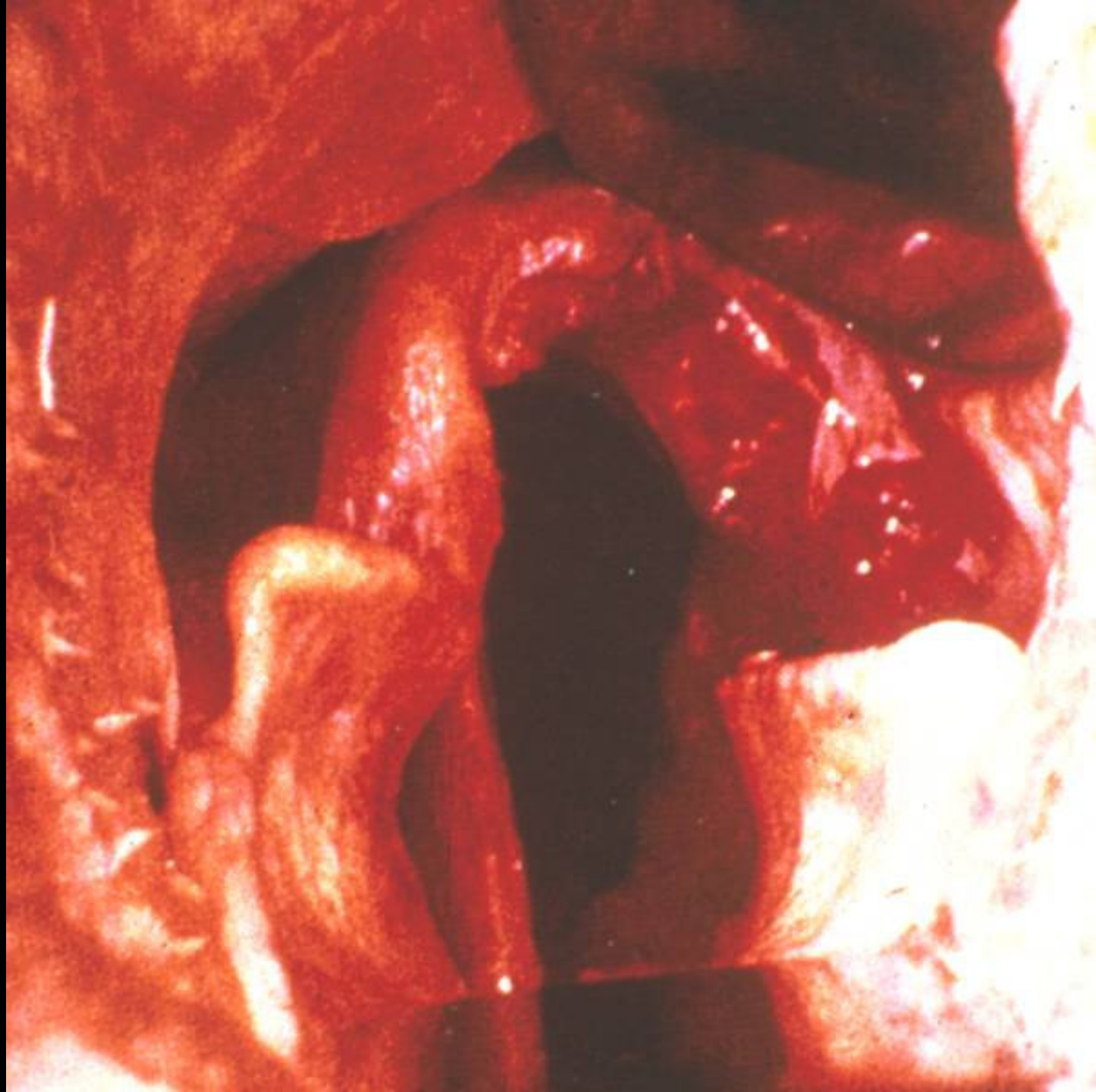
- Arytenoid lateralization
- Ventriculocordectomy + partial arytenoidectomy
 - Oral cavity
 - Ventral laryngotomy
- Permanent tracheostomy

Laryngeal paralysis

Ventriculocordectomy/Arytenoidectomy

- Oral approach
- Temporary tracheostomy
- Ventral laryngotomy





Laryngeal paralysis

Ventriculocordectomy/Arytenoidectomy

- Inconsistent results: 25% to 80% excellent results
 - Persistent of clinical signs
 - Coughing
 - Aspiration pneumonia
 - Scar tissue formation: Cicat



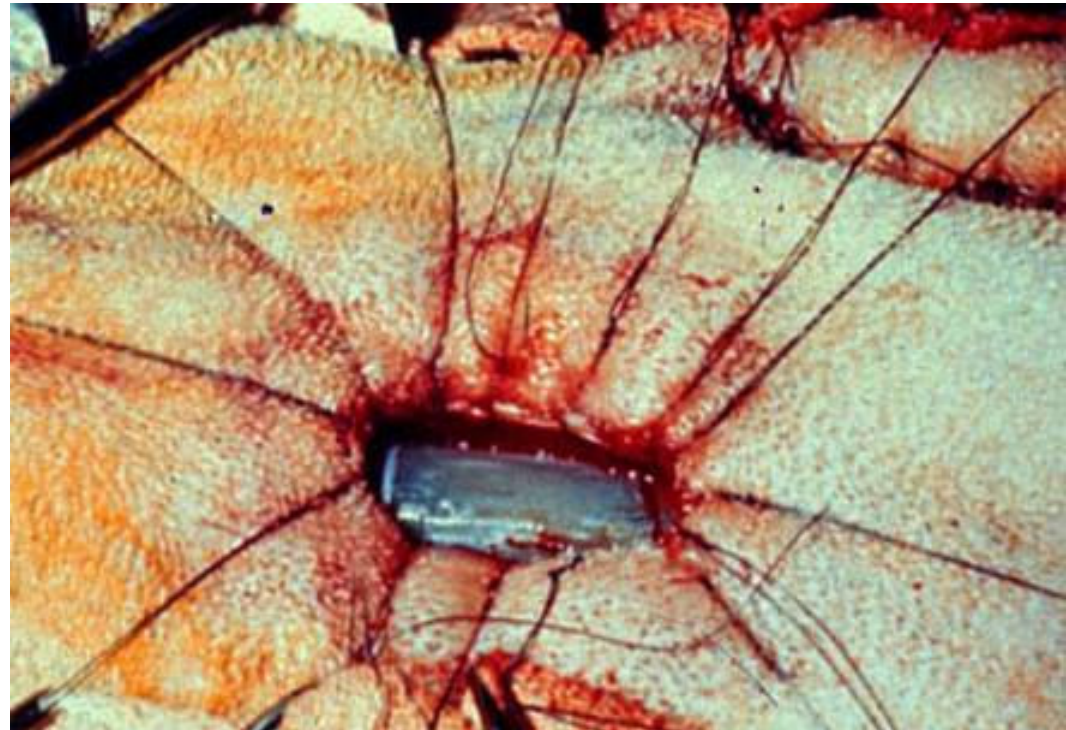




Laryngeal paralysis

Permanent tracheostomy

- High risk of aspiration pneumonia
- Megaesophagus
- Hiatal hernia





Laryngeal paralysis

- Challenging disease
- Requires surgery
- Significantly improve quality of life