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Organic Voice Disorders



Khalid H Al Malki, MD, PhD

- (1) Congenital malformations.**
- (2) Traumatic conditions.**
- (3) Inflammatory causes.**
- (4) Laryngeal tumors.**
- (5) Neurological disorders.**
- (6) Endocrinal causes.**
- (7) Status post-laryngectomy.**

(1) Congenital malformations:

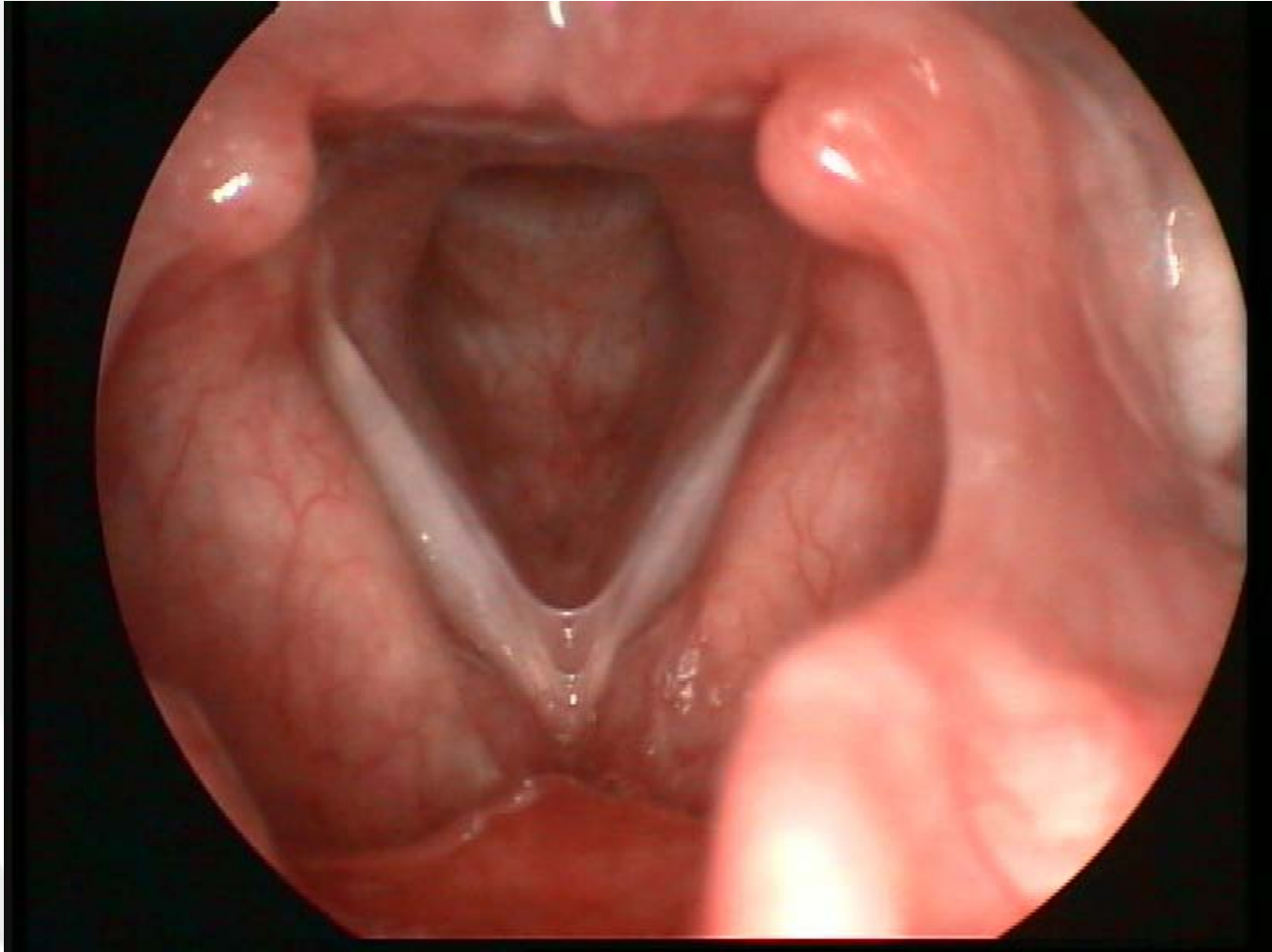
1. Congenital web.
2. Laryngomalacia.
3. Sulcus vocalis.
4. Laryngocele.
5. Laryngeal cleft.

(1) Congenital malformations:

1. Congenital web:

- A band which extends over:
 - a. Part of the glottis, or
 - b. All the glottis (atresia).
- Results from incomplete re-canalization of the glottis (during development).
- Glottic, supraglottic, or infraglottic.





(1) Congenital malformations:

1. Congenital web:

Symptoms depend on the degree of glottic closure:

- a. Atresia: incompatible with life.
- b. Small web: may be asymptomatic ,or there may be high pitch, hoarse cry, cough,or stridor.

(1) Congenital malformations:

1. Congenital web:

Treatment:

- a. Atresia: Immediate insertion of bronchoscope or tracheostomy
- b. Web: Excision (endoscopic or open), then insertion of **keel** between the vocal folds to prevent recurrence.

(1) Congenital malformations:

2. Laryngomalacia:

Aetiology: Unusual flaccidity of the laryngeal cartilages specially the epiglottis.

Symptoms: Inspiratory stridor.

Noted soon after birth, or may be delayed to weeks or months.

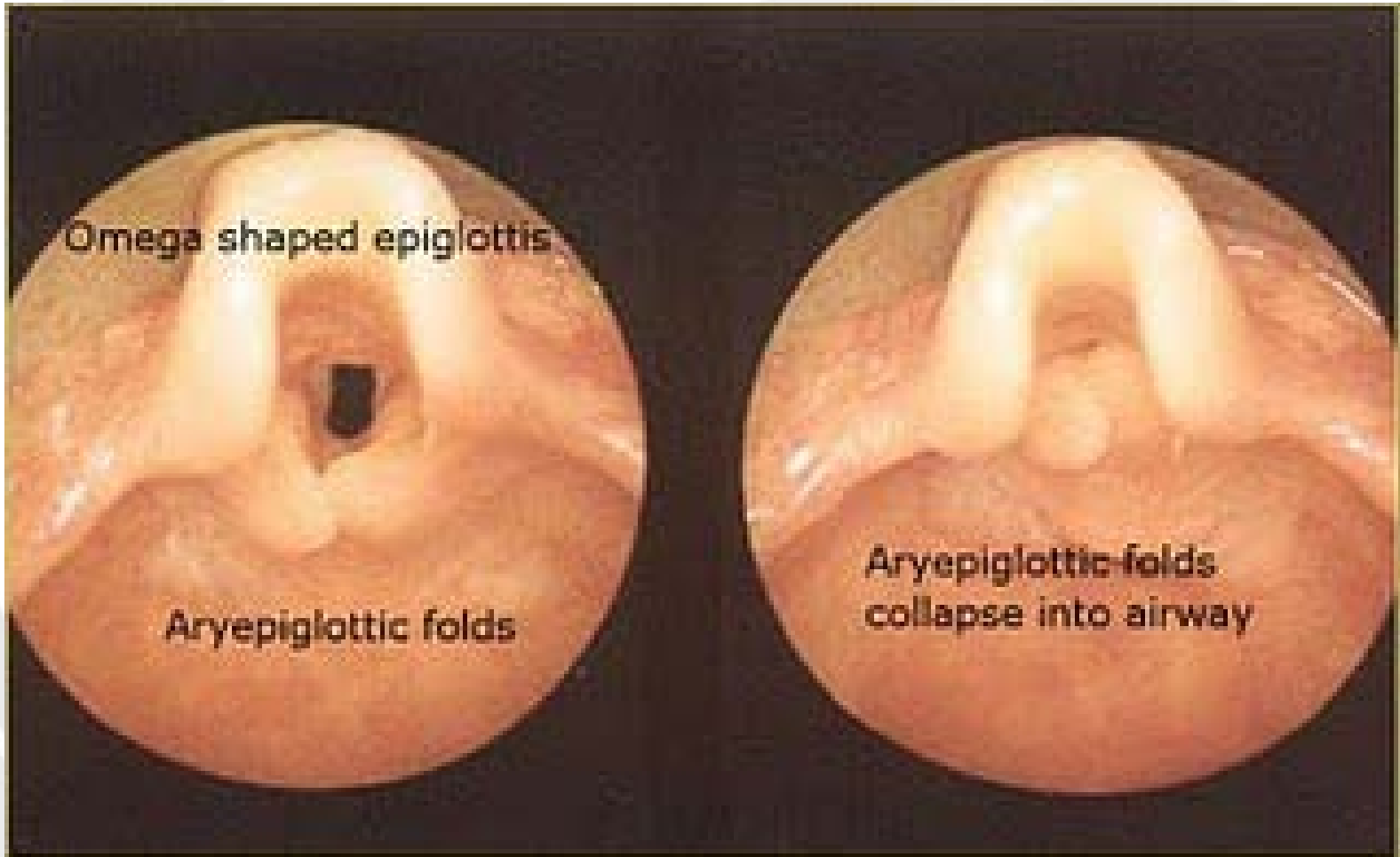
(1) Congenital malformations:

2. Laryngomalacia:

Fiberoptic laryngoscopy:

- Flaccid curled omega shaped epiglottis.
- Epiglottis is drawn on the glottis during inspiration.
- Both vocal folds are usually normal.
- Signs of LPRD.



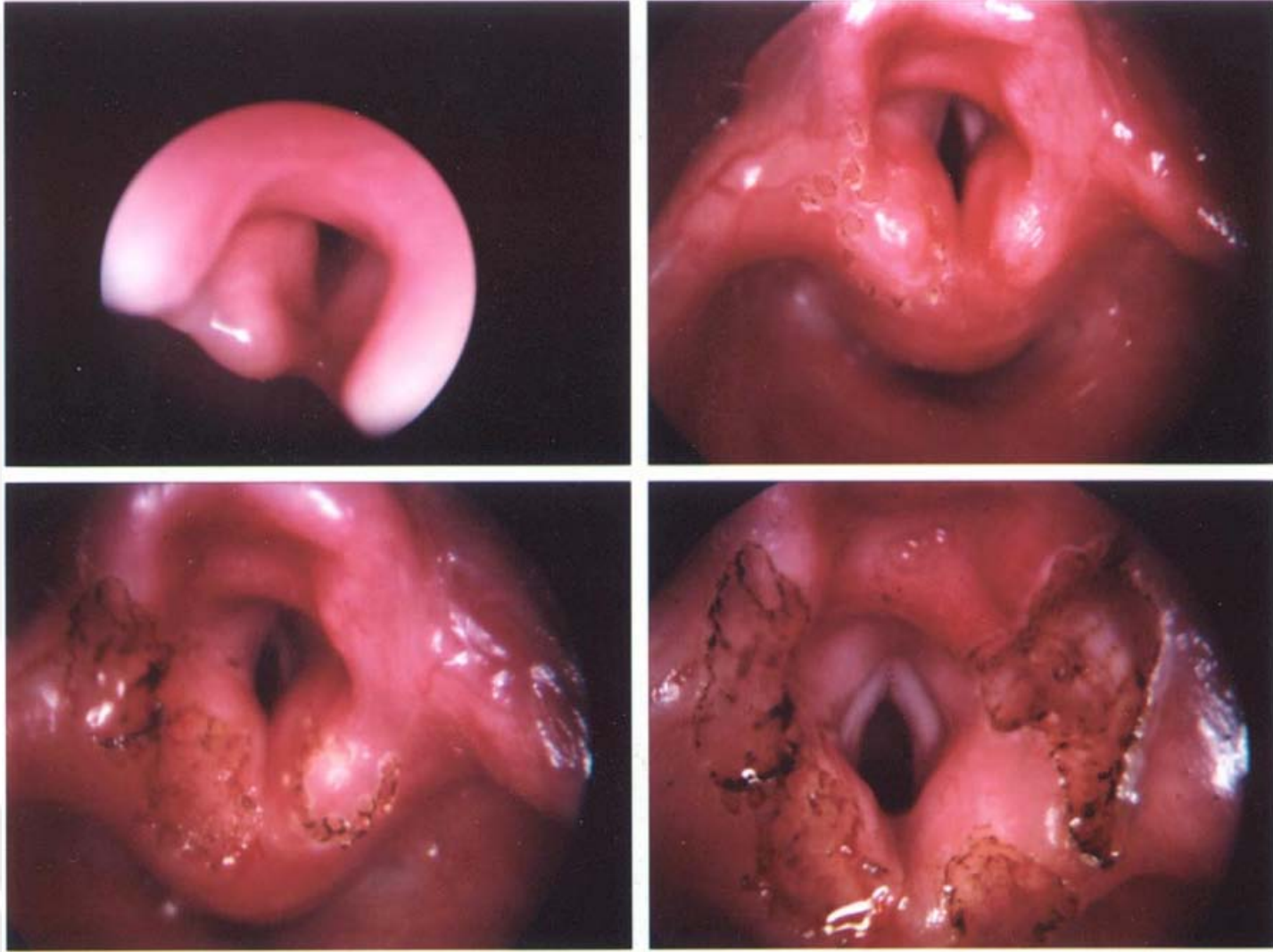


(1) Congenital malformations:

2. Laryngomalacia:

Treatment:

- [a] Mild cases: Observation, stridor usually disappears by the age of 12-24 months.
- [b] Severe cases: **Supraglottoplasty.**
- [c] Tracheostomy is rarely required as it may result in lower respiratory tract infection.



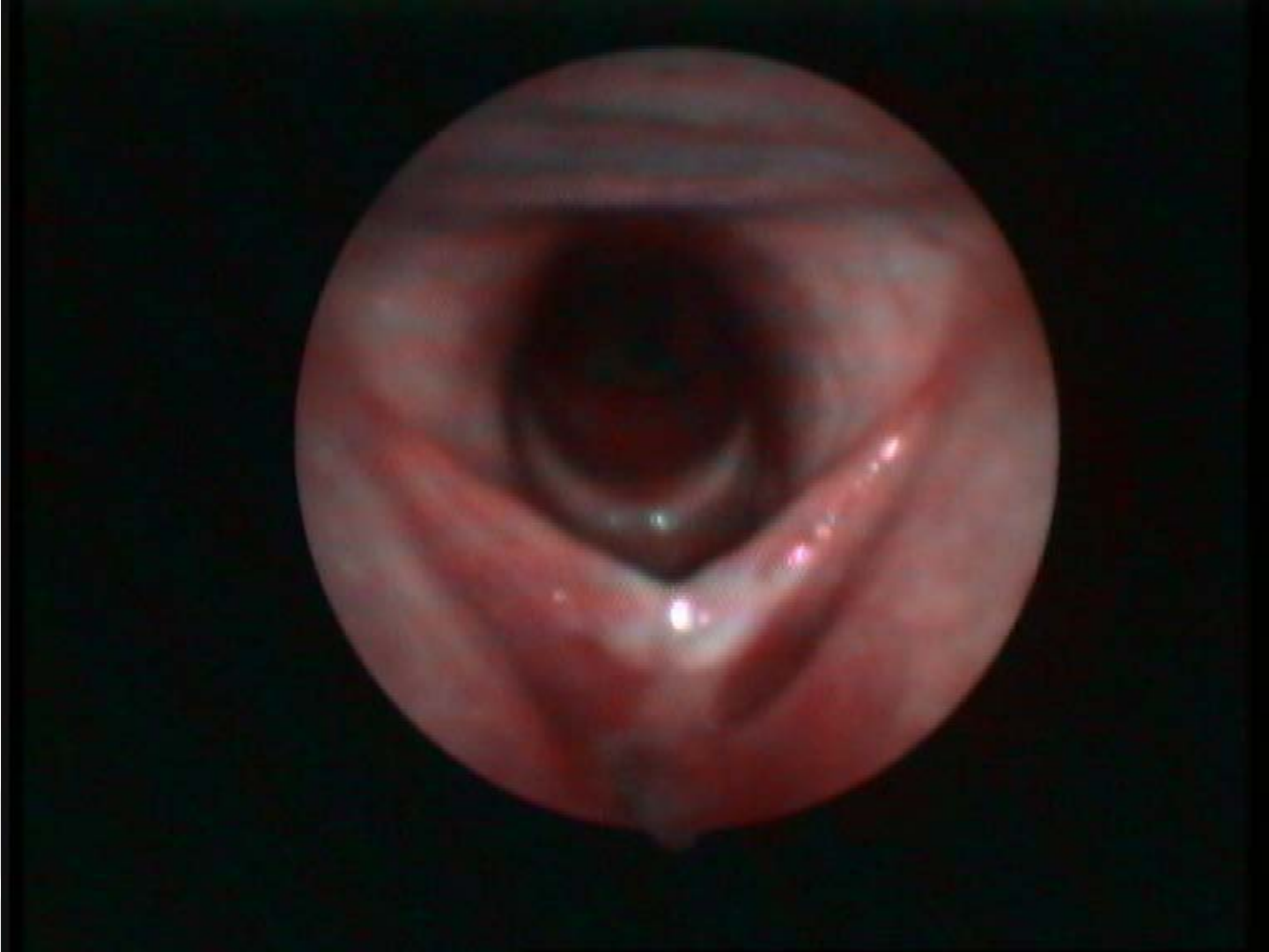
(2) Traumatic conditions:

1. Mechanical trauma:

- Blunt physical trauma.
- Sharp wounds.
- Vocal trauma.
- Foreign body.

2. Physical trauma:

- Thermal (burns).
- Chemical (caustics).



(3) Inflammatory causes:

1. Acute laryngitis.
2. Chronic laryngitis.

(3) Inflammatory causes:

1. Acute laryngitis:

The most common cause of laryngeal symptoms.

Usually viral infection.

Symptoms:

- dysphonia and even loss of voice.
- cough, fever, and often symptoms of rhinitis.

(3) Inflammatory causes:

1. Acute laryngitis.

Laryngoscopy:

Erythema and edema involving vocal folds and often the supraglottis.

Treatment:

- Voice rest and hydration.
- May be oral antibiotics.
- Most conditions are self-limited and resolve in about 1 week.

(3) Inflammatory causes:

2. Chronic laryngitis:

- Respiratory scleroma.
- Candida laryngitis.
- TB laryngitis (primary or secondary).

(4) Laryngeal tumors:

1. Benign (eg Recurrent Respiratory Papillomatosis).
2. Dysplasia.
3. Malignant (Laryngeal Carcinoma).

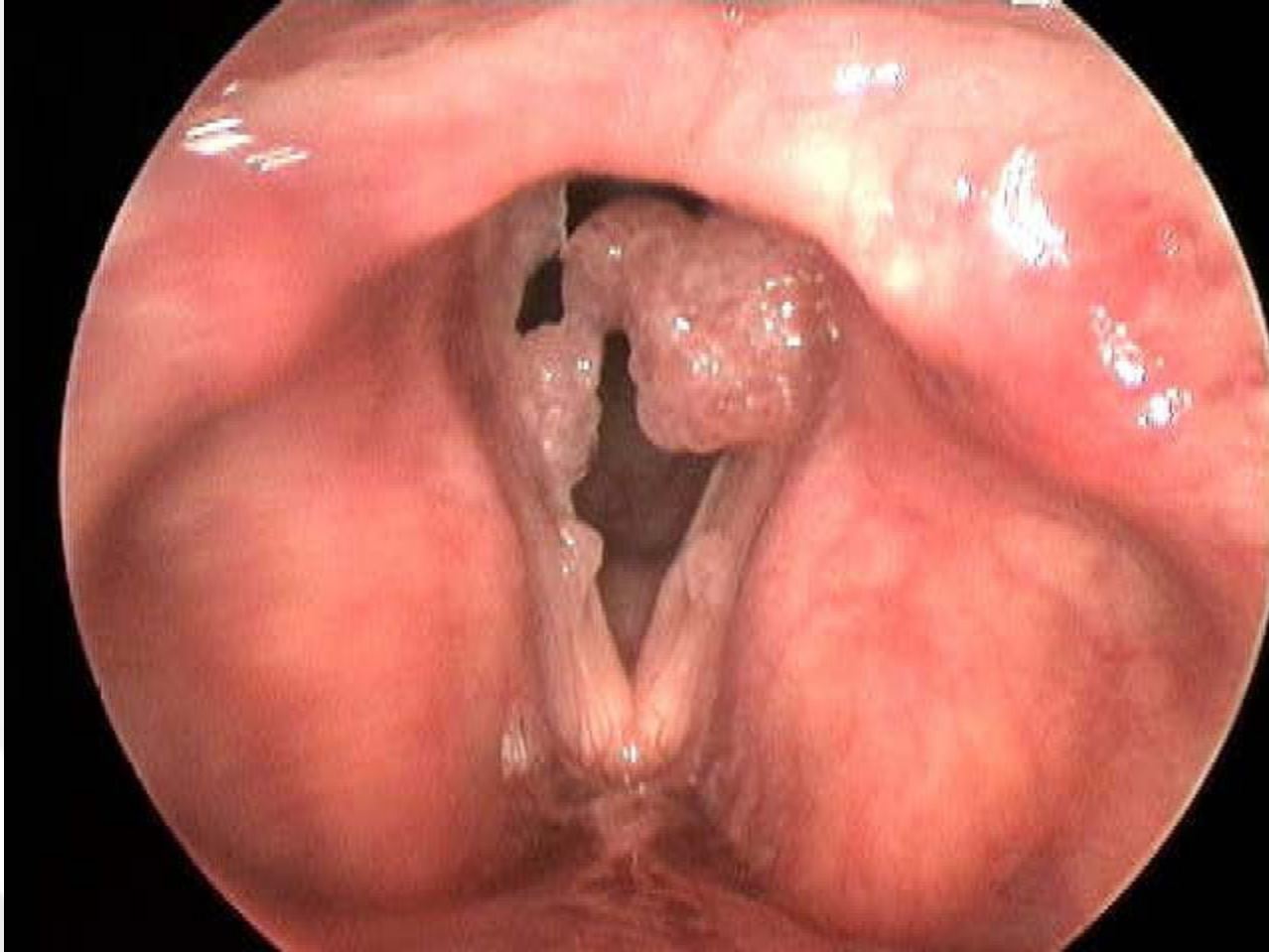
(4) Laryngeal tumors:

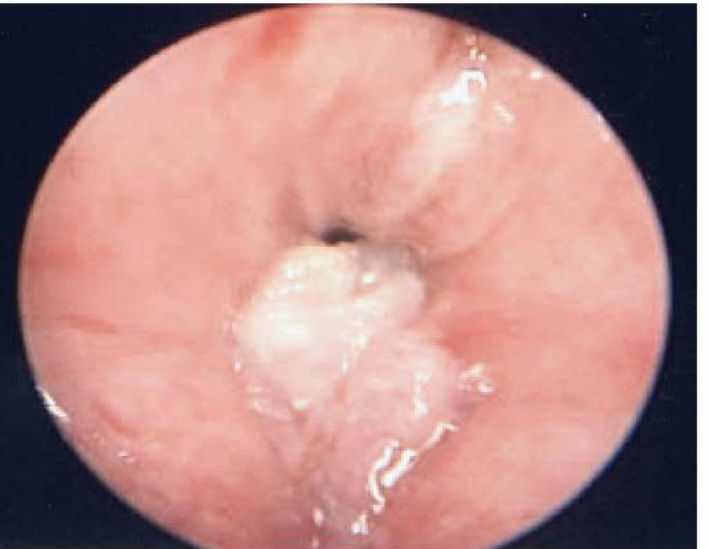
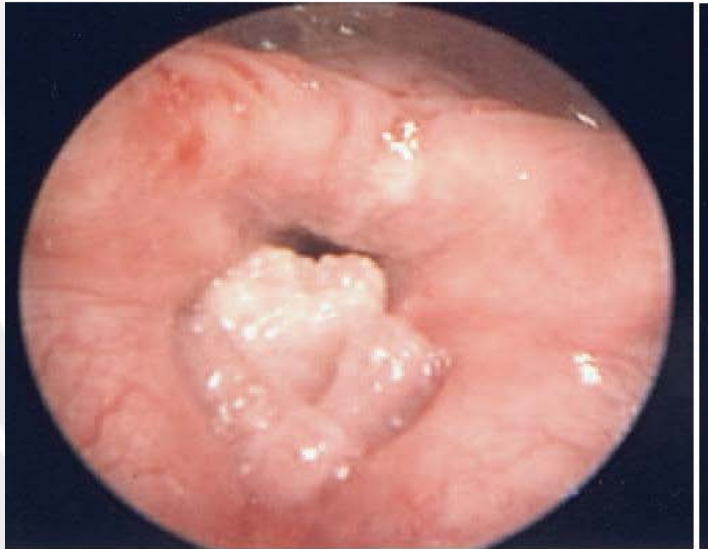
1. Benign:RRP:

The most common benign lesion of the larynx and trachea.

Caused by human papilloma virus (types 6 and 11).

More common and more aggressive in children.





(4) Laryngeal tumors:

1. Benign:RRP:

Symptoms:

- Change of voice.
- Difficulty in breathing.

Treatment:

- Surgical excision (debulking):
Microdebridement, Laser.
- Medical treatment: limited effect.
- Vaccination: research.



Microdebrider is a disposable blade is a hollow metal tube coupled to suction that cuts obstructing tissue and simultaneously removes it from the airway.

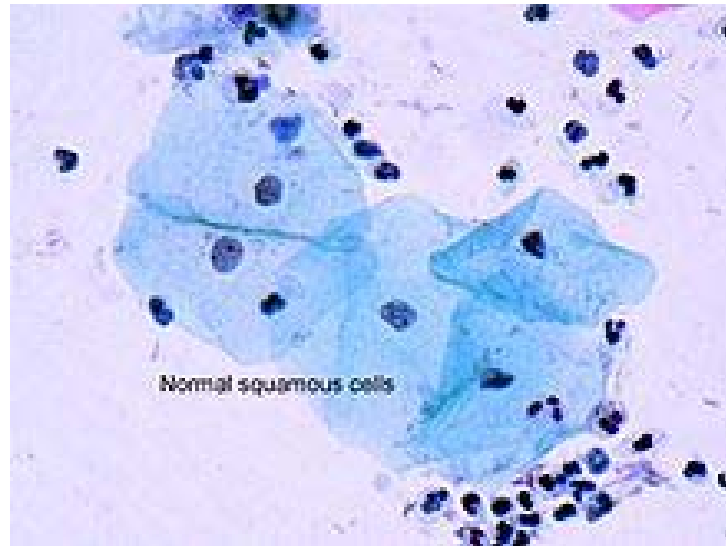
(4) Laryngeal tumors:

2. Dysplasia:

Development of immature cell in vocal fold epithelium (pathological diagnosis).

Non-keratenizing squamous cell epithelium.

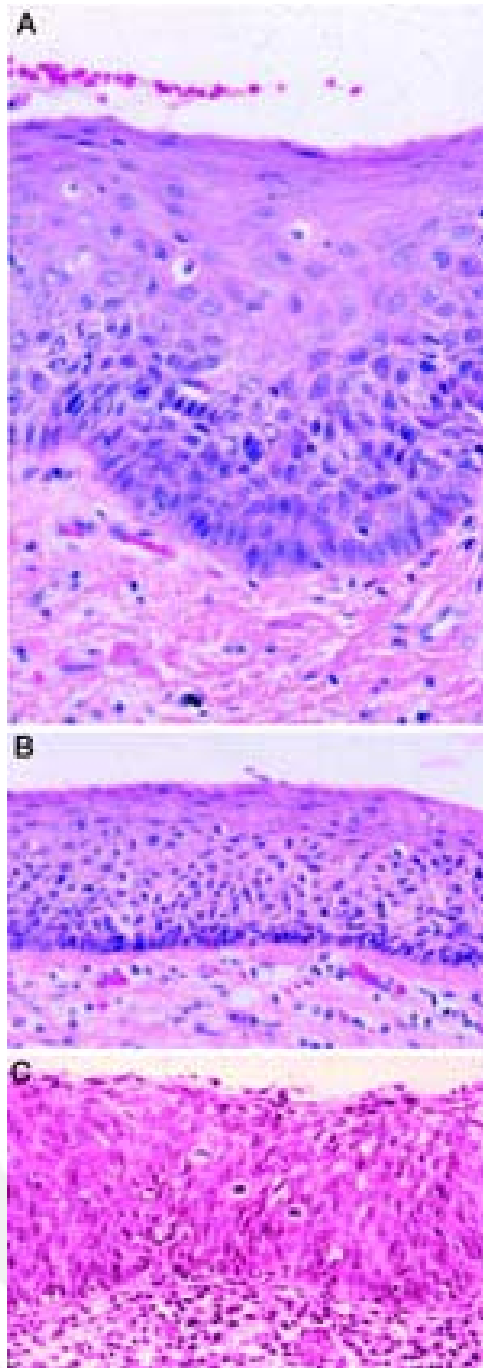
Pre-cancerous.



Normal squamous cells



Dysplastic cells



A. Mild dysplasia.

B. Moderate dysplasia.

C. severe dysplasia with full-thickness replacement of the squamous epithelium by atypical, small, immature cells (carcinoma *in situ*).

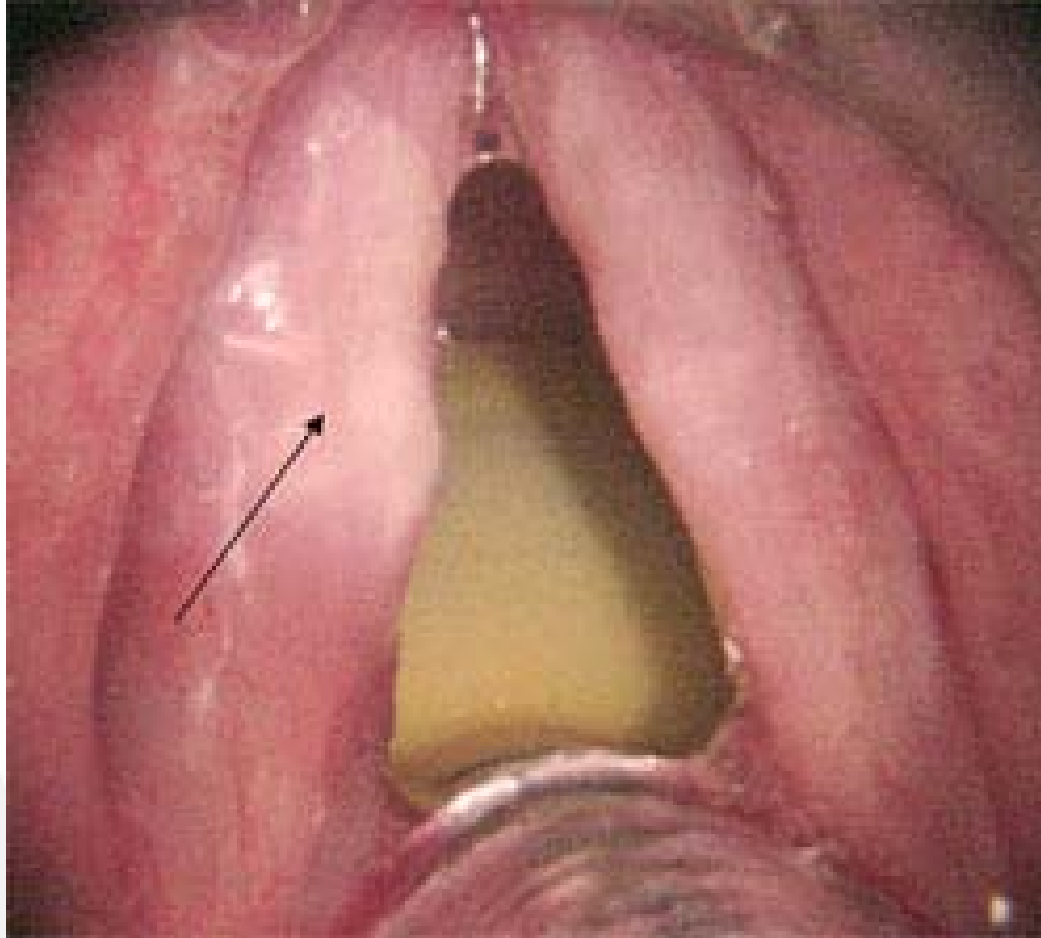
(4) Laryngeal tumors:

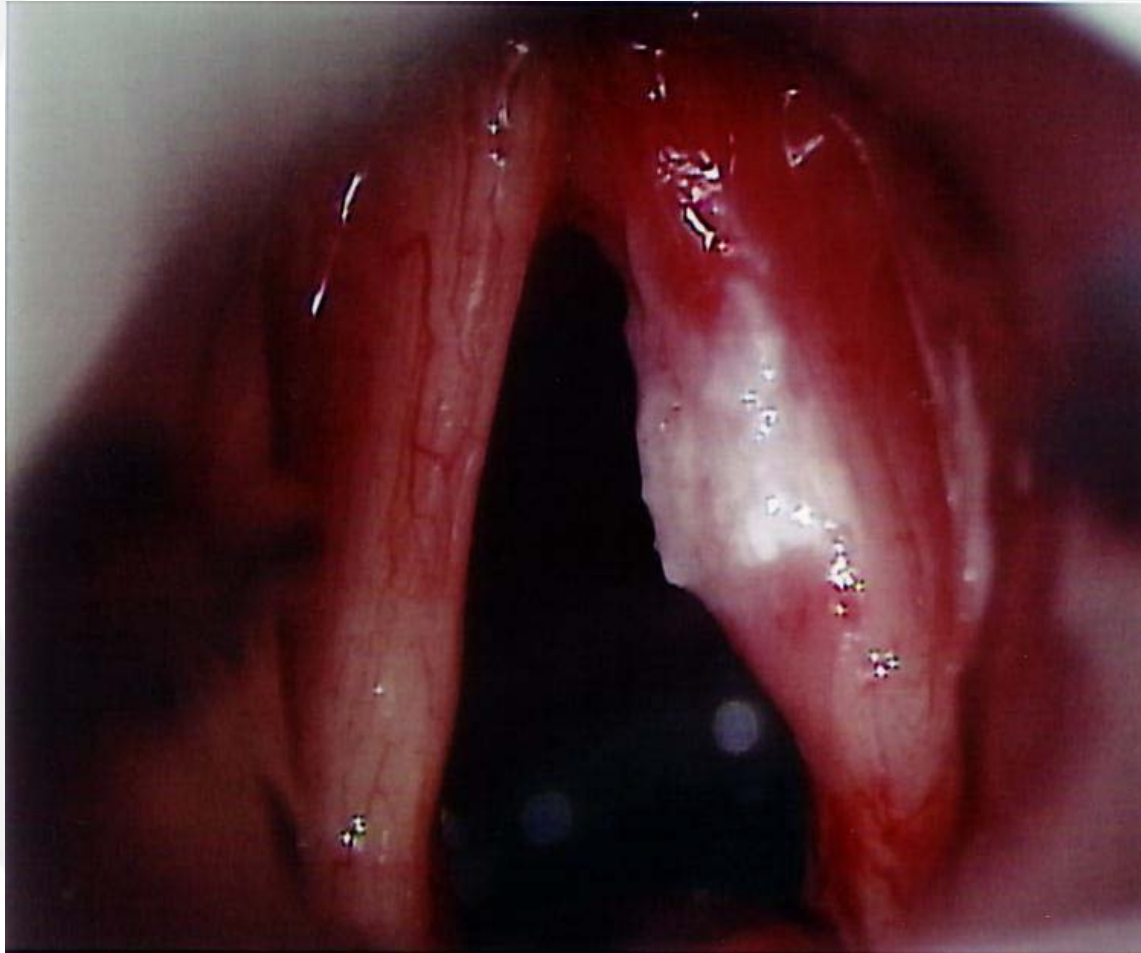
2. Dysplasia:

It is the outcome of long-standing laryngeal irritation: smoking, alcohol, LPRD,

Whitish (leukoplakia) or reddish (erythroplakia) patch on vocal fold mucosa.

Non-vibrating segment on laryngeal stroboscopy (Not mucous !!!).





(4) Laryngeal tumors:

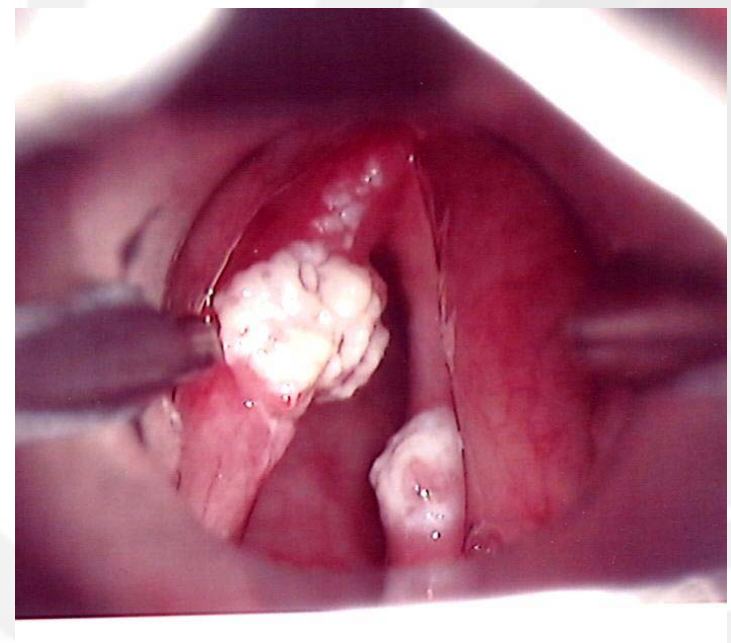
2. Dysplasia:

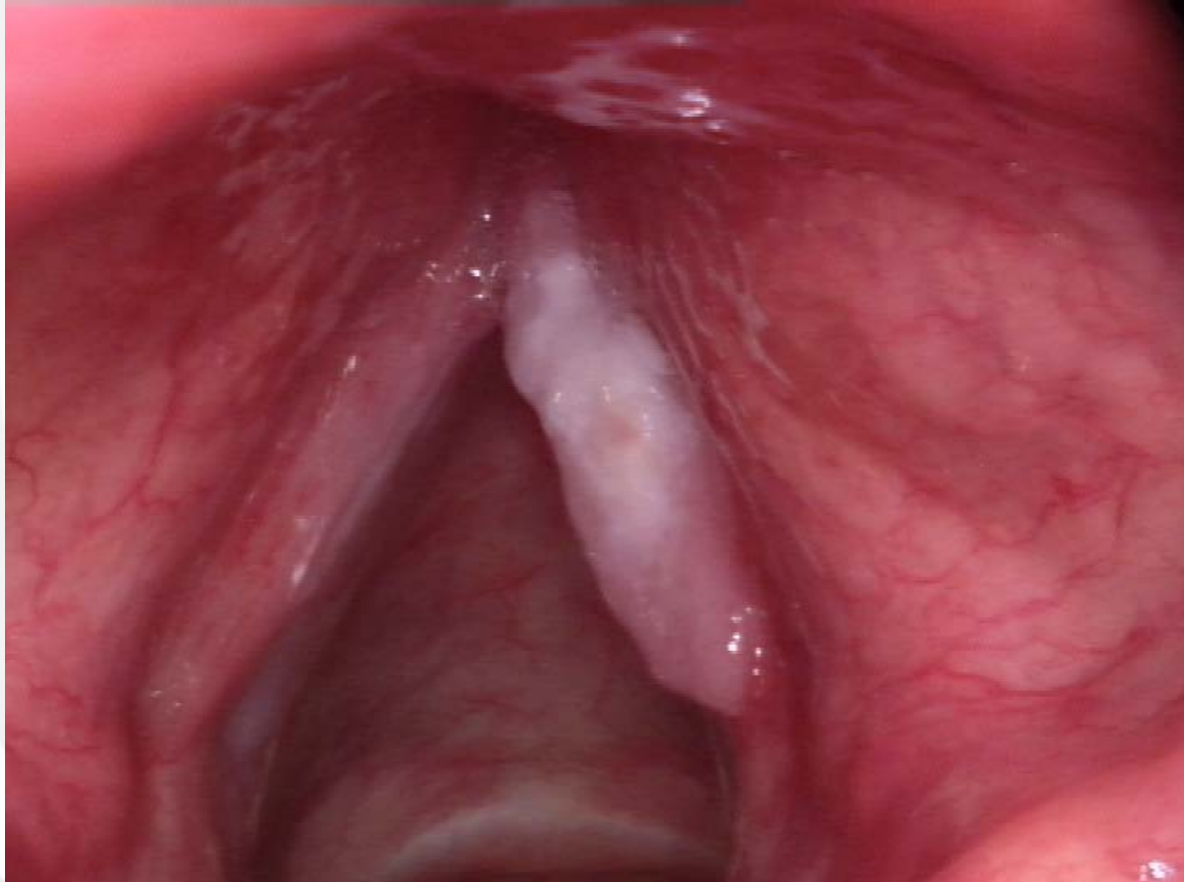
Treatment:

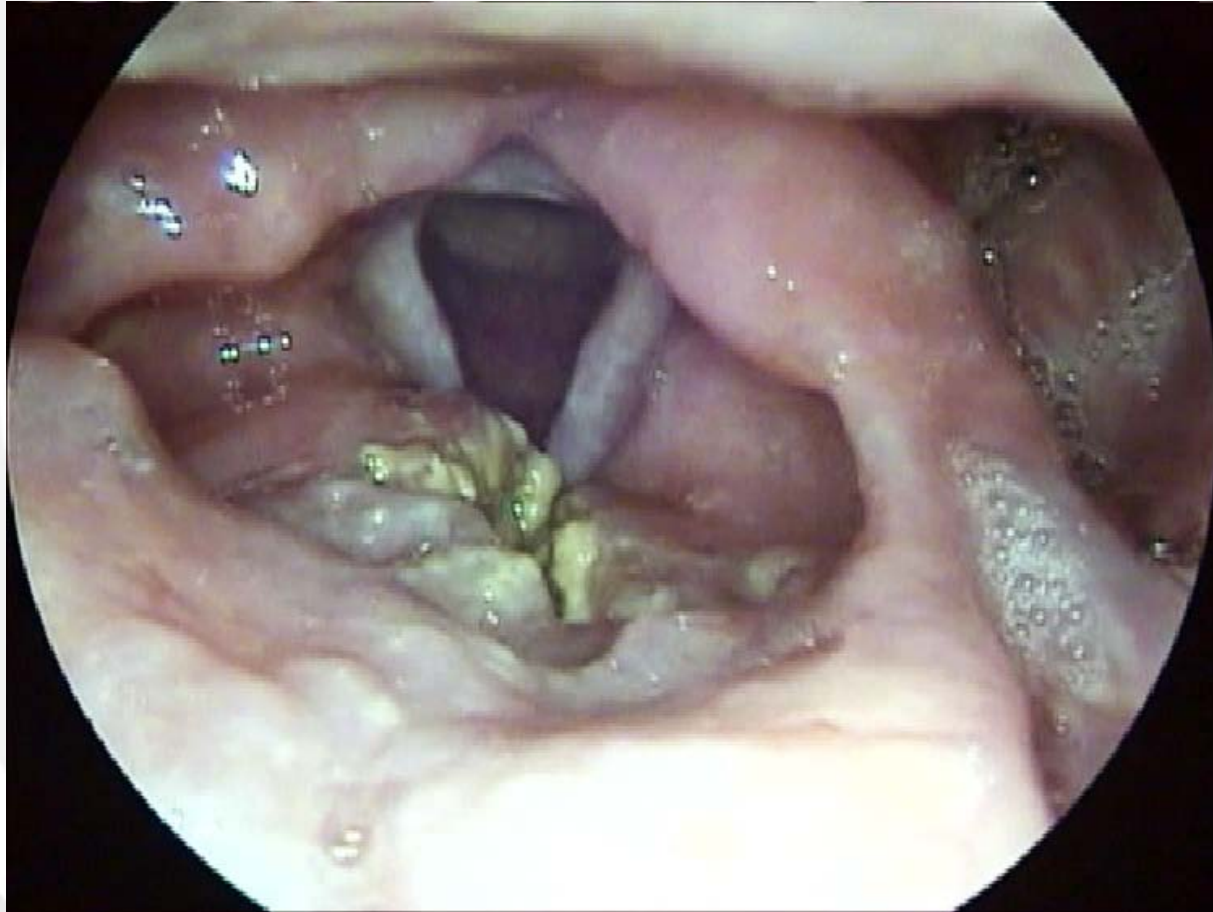
- Biopsy for histopathology.
- Surgical removal (laser or cold instruments).
- Radiotherapy.
- Medical treatment of LPRD (causation).
- Voice therapy.
- Follow up with stroboscopy is mandatory.

(4) Laryngeal tumors:

3. Malignant (Usually squamous cell carcinoma).







(5) Neurological disorders:

Presented in the last
lecture.

(6) Endocrinal causes:

1. Thyroid gland dysfunction.
2. Gonadal dysfunction.
3. Virilization of voice.
4. Premenstrual changes.

(6) Endocrinal causes:

1. Hypothyroidism:

Pathology: Vocal folds infiltration with myxoedematous material.

Voice: Strained and excessively low pitched.

Speech: - Distortion of lingual sounds (increase tongue size).
- Ataxic dysarthria (infiltration of the cerebellum).

(6) Endocrinal causes:

2. Virilization of voice:

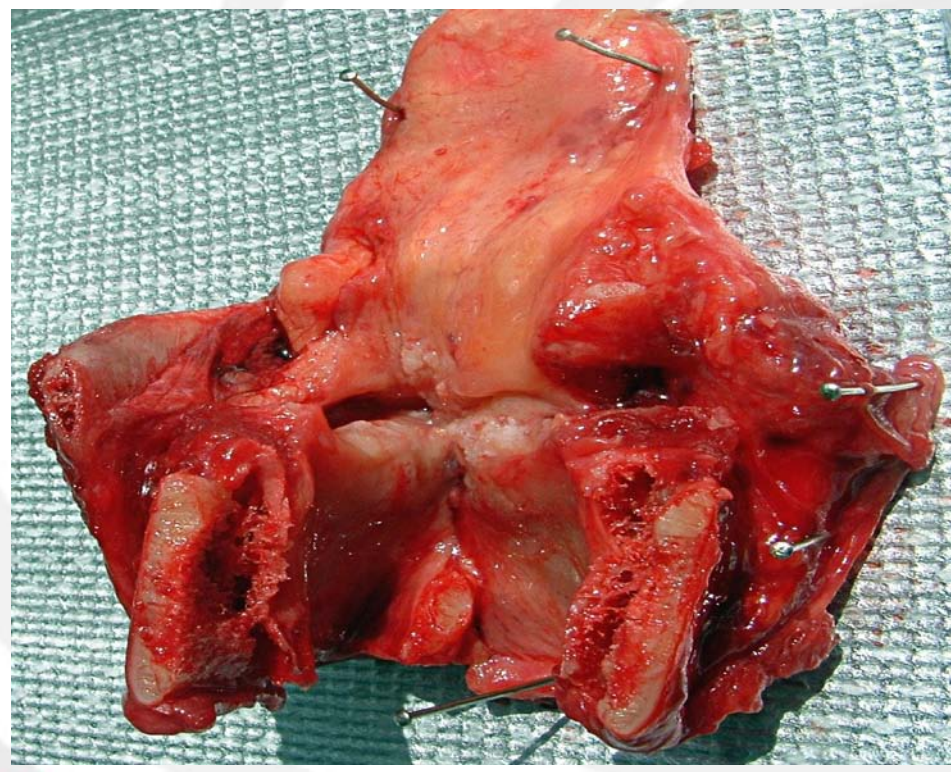
Development of male voice in a female.

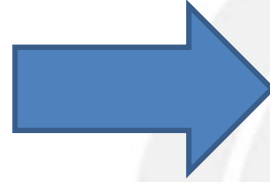
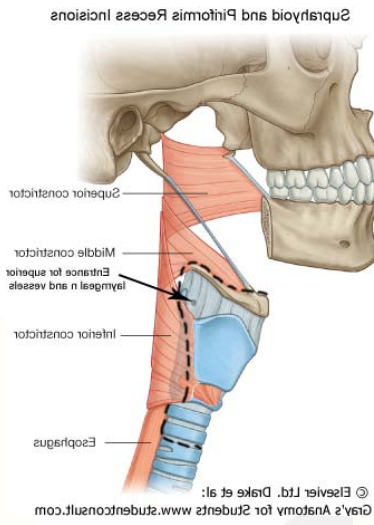
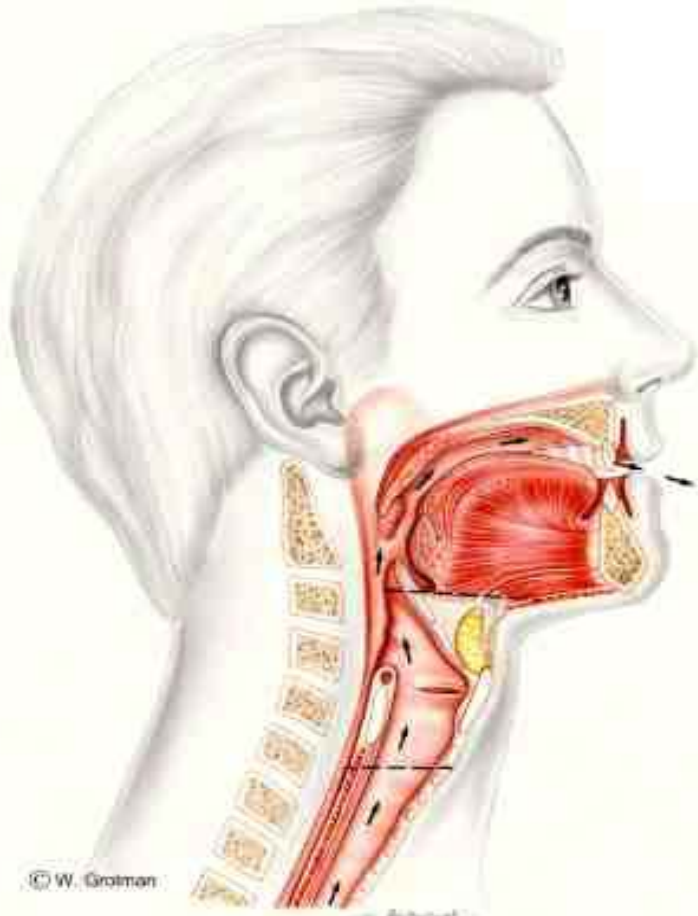
The larynx grows to a larger size.

Voice is low pitched with pitch breaks.

Drugs, as testosterone, can lead to **irreversible** voice changes.

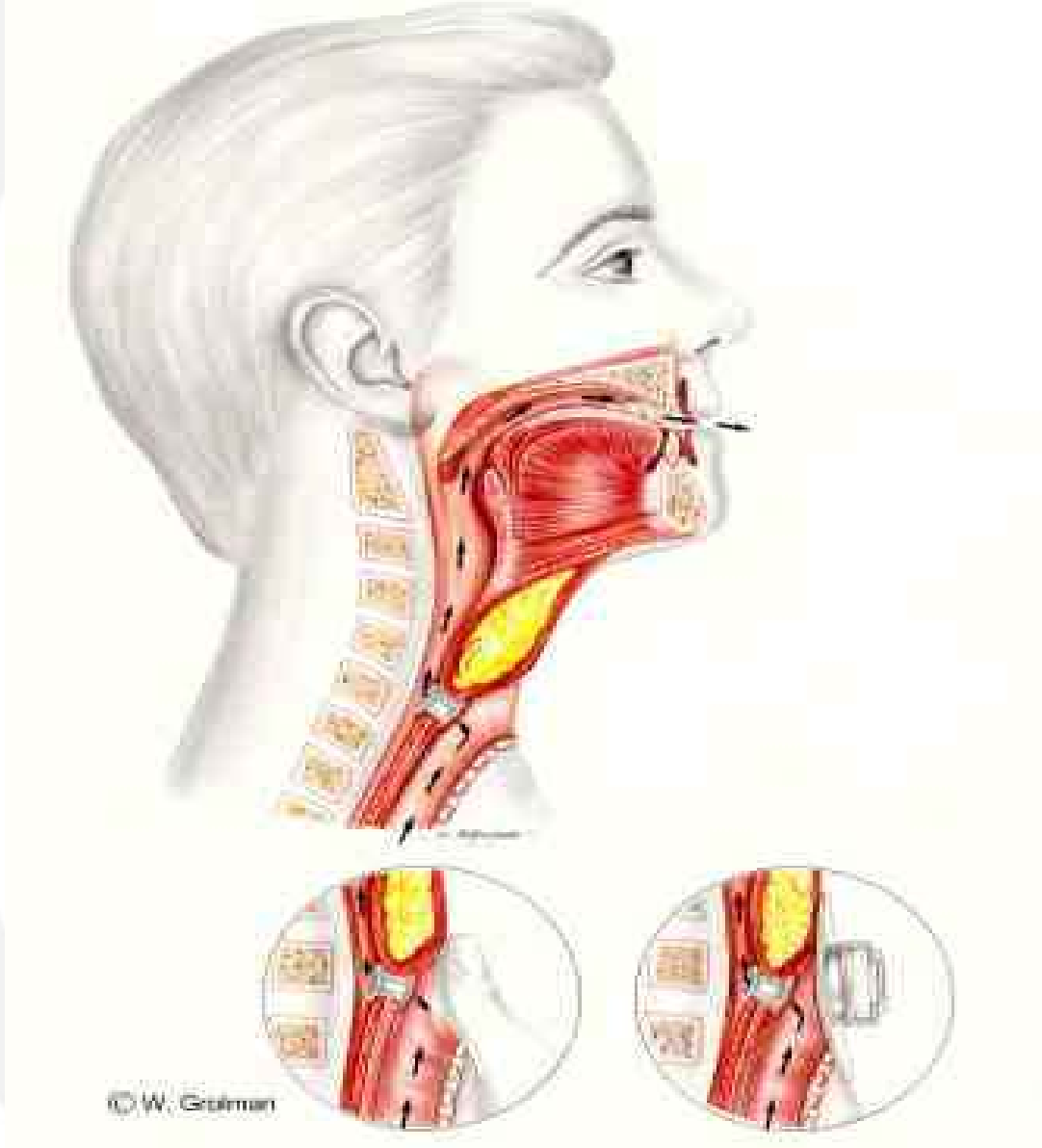
(7) Status post-laryngectomy:







Tracheostomy with Tracheo-esophageal Puncture



Tracheo-esophageal Puncture (TEP)



كرسي بحث
أمراض الصوت والبلع



Thank You

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