

Diagnosis of Laryngeal Cancer

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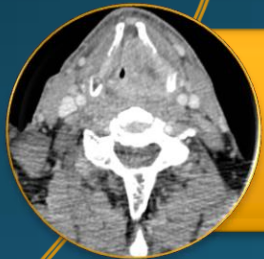
Medical History



Flexible Fiberoptic Laryngoscopy



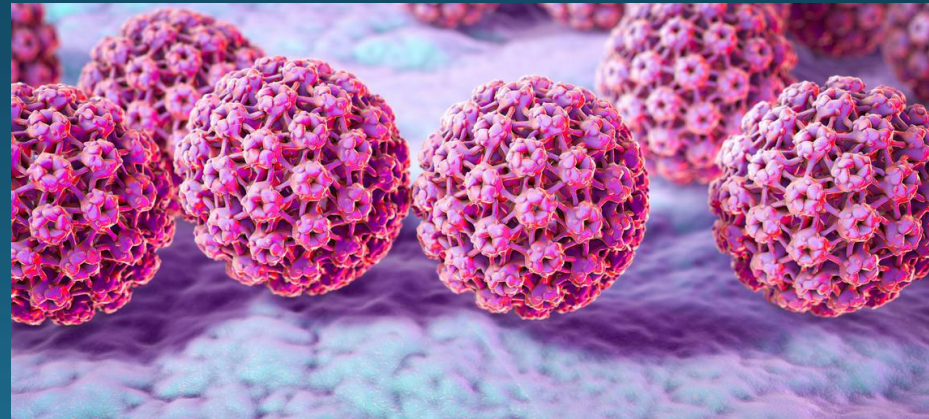
Narrow-Band Imaging (NBI)



Computed Tomography (CT)

Medical Hystory

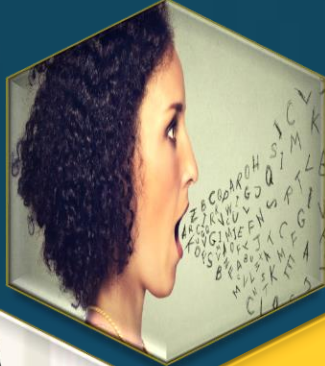
- RISK FACTORS



Medical Hystory

- SYMPTOMS

Dysphonia



Otalgia



Dyspnea



Cough

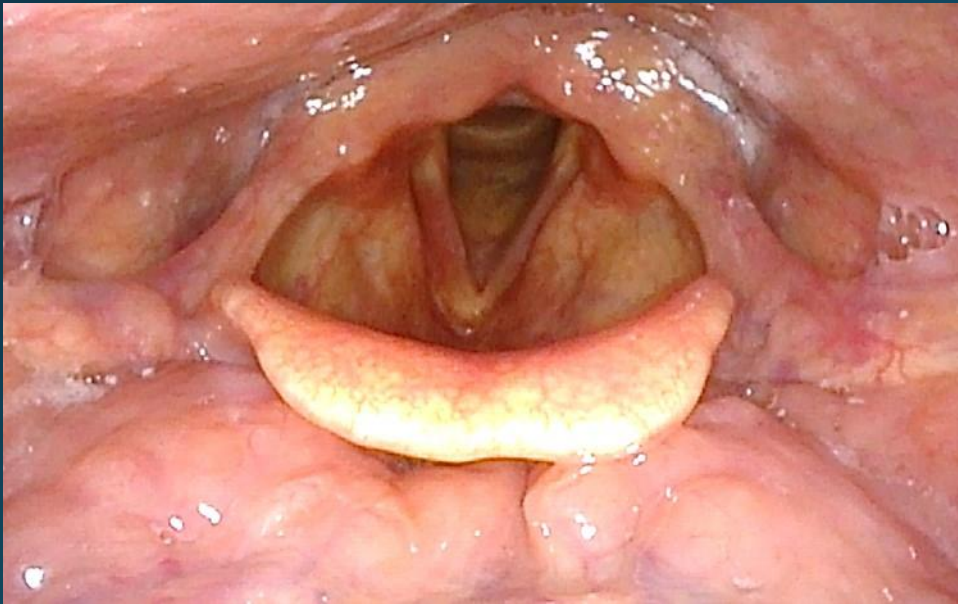
Dysphagia



Sore throat

White Light Flexible Fiberoptic Laryngoscopy

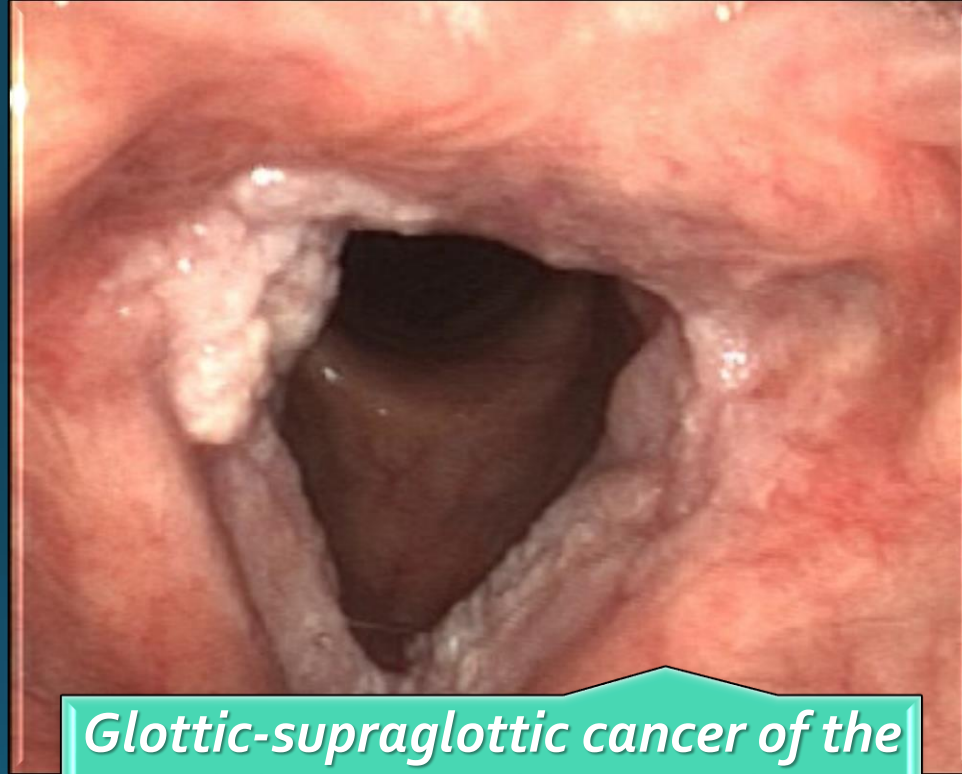
LARYNGEAL ANATOMY



LARYNGEAL FUNCTION



White Light Flexible Fiberoptic Laryngoscopy



Glottic-supraglottic cancer of the right arytenoid, posterior commissure and both true vocal cords

Narrow-Band Imaging (NBI)

*The study of vascularization and any anomalies
on the surface layer and submucosa*

*The observation and differentiation of
Intraepithelial Papillary Capillary Loops (IPCL)
abnormalities*



*The early detection of any suspicious lesion and to
provide a customized resection*

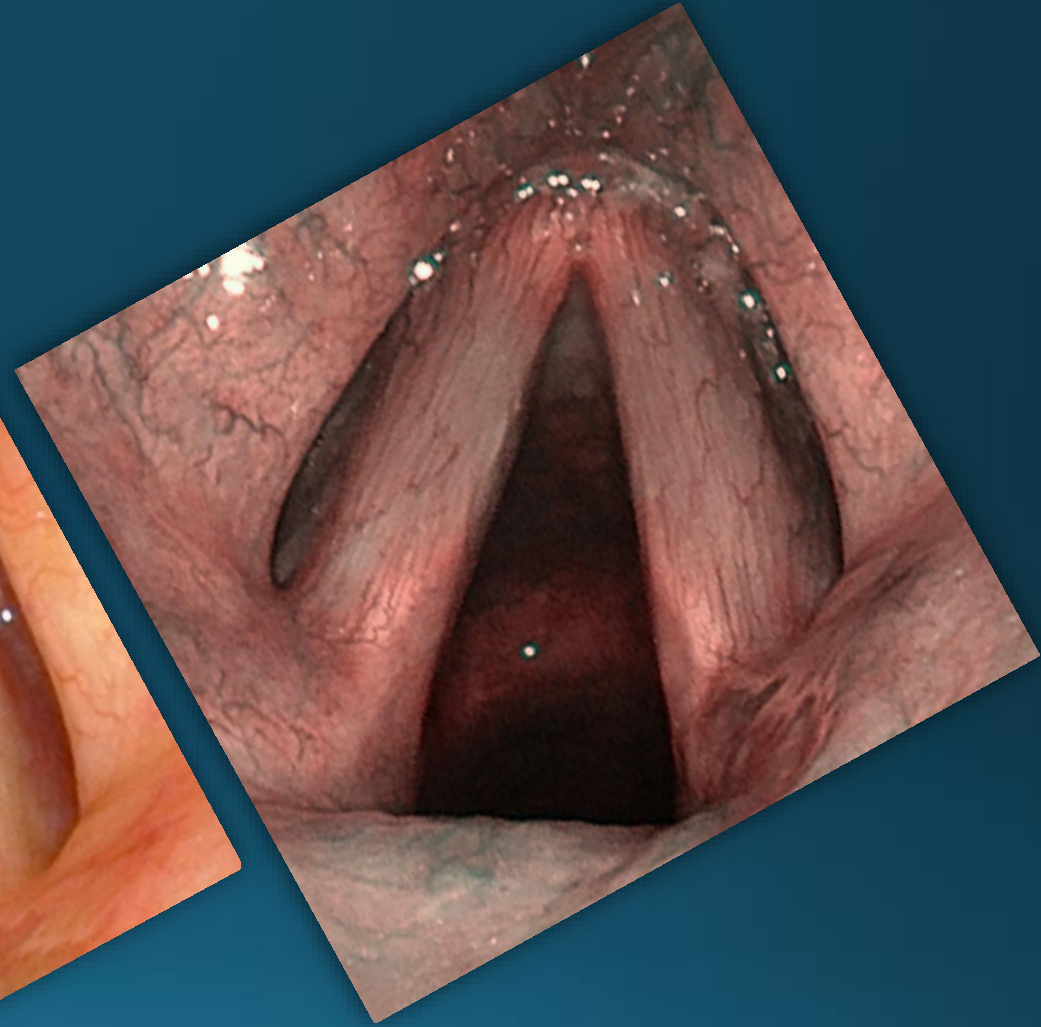
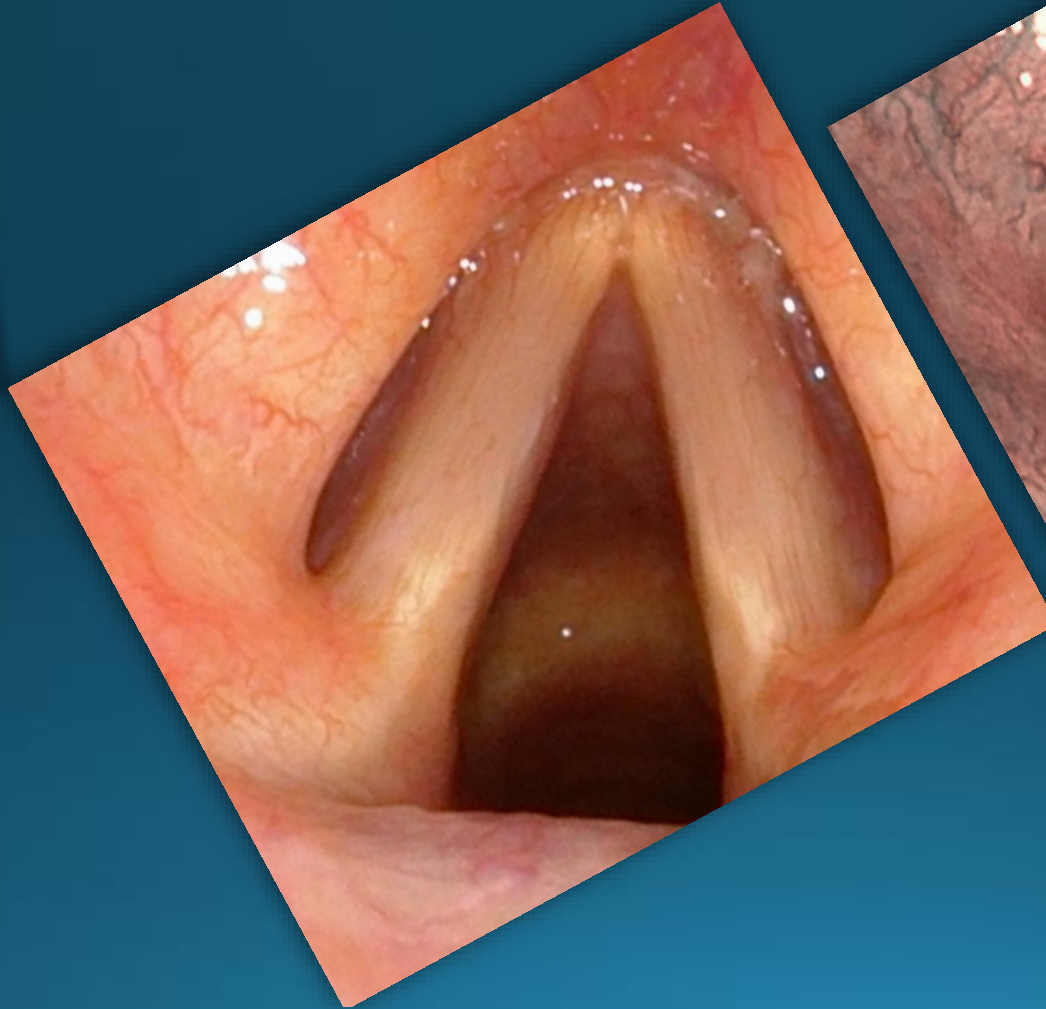
➤ J Laryngol Otol. 2011 Mar;125(3):288-96. doi: 10.1017/S0022215110002033. Epub 2010 Nov 8.

Endoscopic diagnosis of laryngeal cancer and precancerous lesions by narrow band imaging

X-G Ni¹, S He, Z-G Xu, L Gao, N Lu, Z Yuan, S-Q Lai, Y-M Zhang, J-L Yi, X-L Wang, L Zhang, X-Y Li, G-Q Wang

Classification of IPCL features

Type I



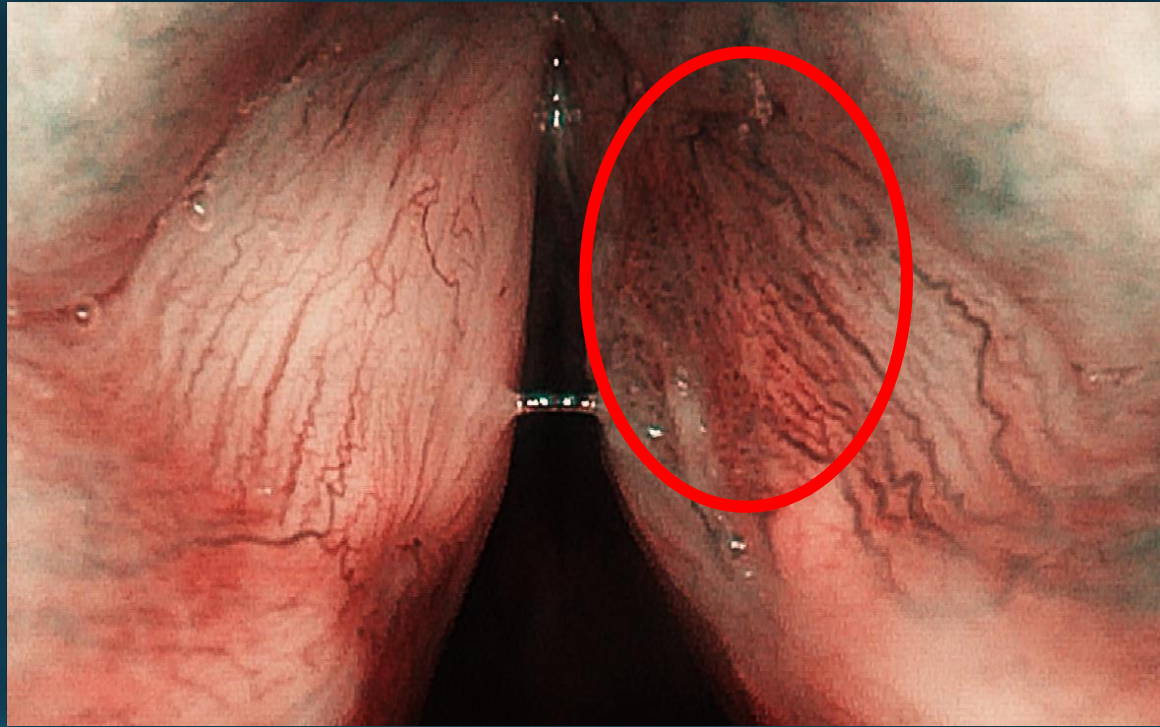
Type II



Type III



Type IV





Type Va



Clinical Trial > Lasers Surg Med. 2017 Aug;49(6):609-618. doi: 10.1002/lsm.22652.

Epub 2017 Feb 23.

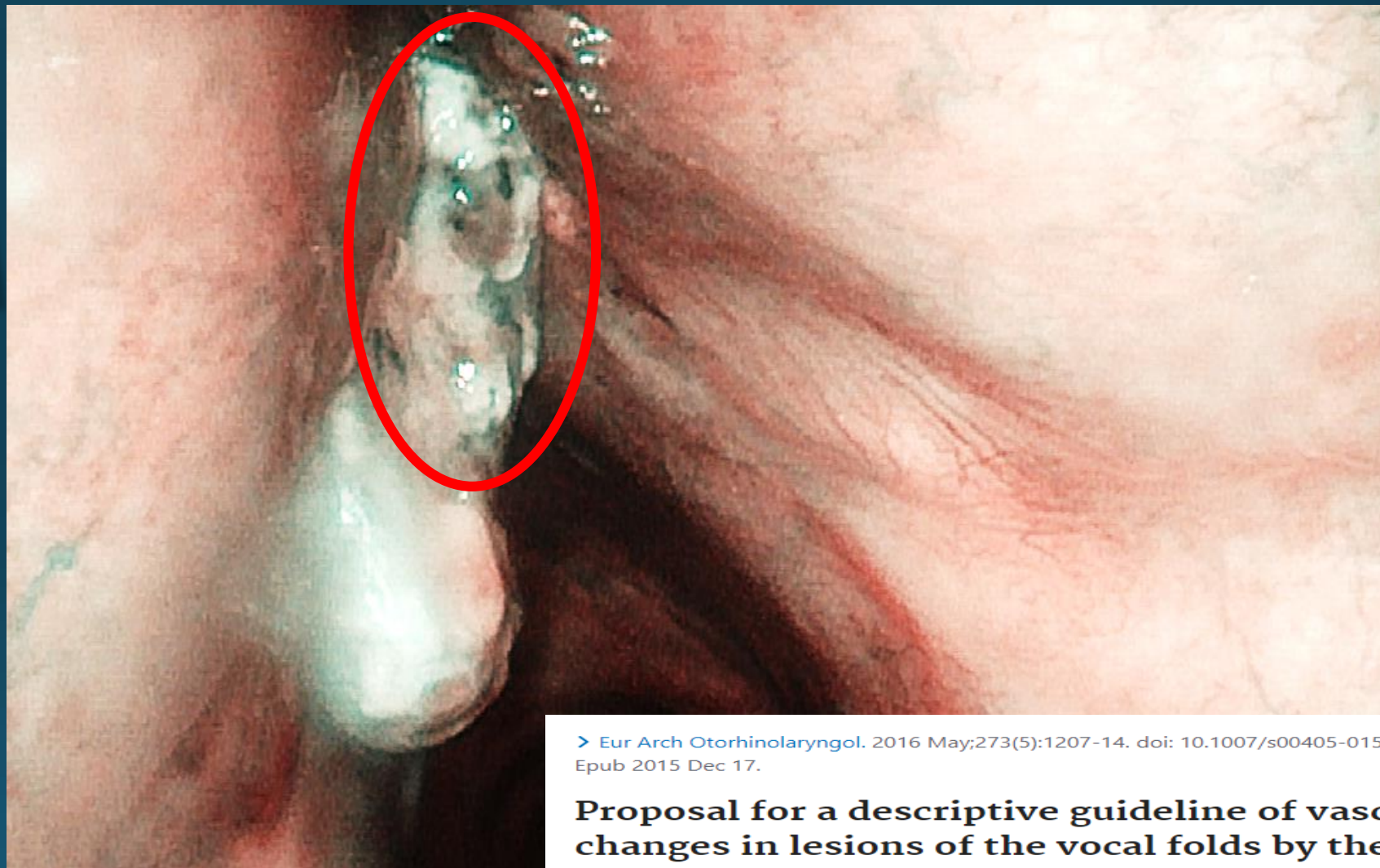
Evaluation of the combined use of narrow band imaging and high-speed imaging to discriminate laryngeal lesions

Veronika Volgger¹, Axelle Felicio¹, Jörg Lohscheller², Anna S Englhard¹, Hanan Al-Muzaini¹, Christian S Betz¹, Maria E Schuster¹

Type Vb



Type Vc



► [Eur Arch Otorhinolaryngol.](#) 2016 May;273(5):1207-14. doi: 10.1007/s00405-015-3851-y. Epub 2015 Dec 17.

Proposal for a descriptive guideline of vascular changes in lesions of the vocal folds by the committee on endoscopic laryngeal imaging of the European Laryngological Society

Christoph Arens¹, Cesare Piazza², Mario Andrea³, Frederik G Dikkers⁴, Robin E A Tjon Pian Gi⁴, Susanne Voigt-Zimmermann⁵, Giorgio Peretti⁶

Computed Tomography (CT)

A neck computed tomography (CT) with and without contrast medium allows to rule out...



The **degree of infiltration in depth of the tumour**

Tumour extension to the adjacent structures
(pre-epiglottic and / or paraglottic spaces, cartilages, tongue base)

The presence of **any lymph node metastases**

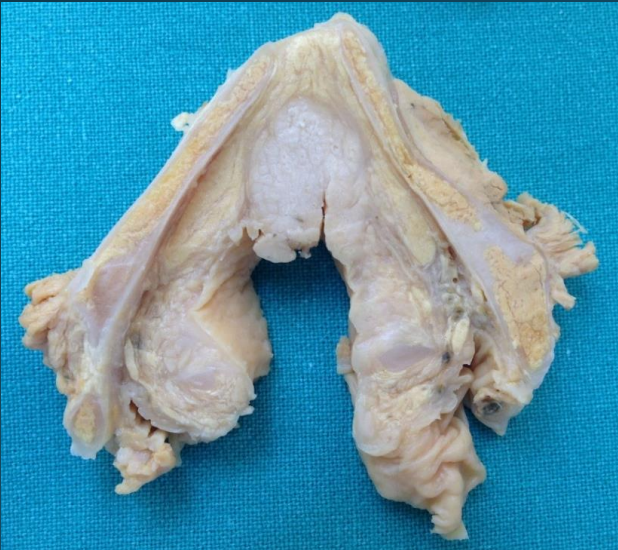
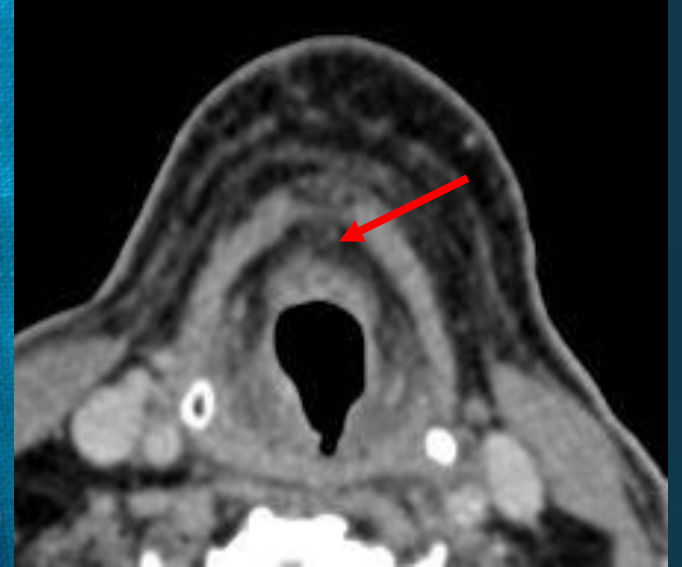


To stage the carcinoma

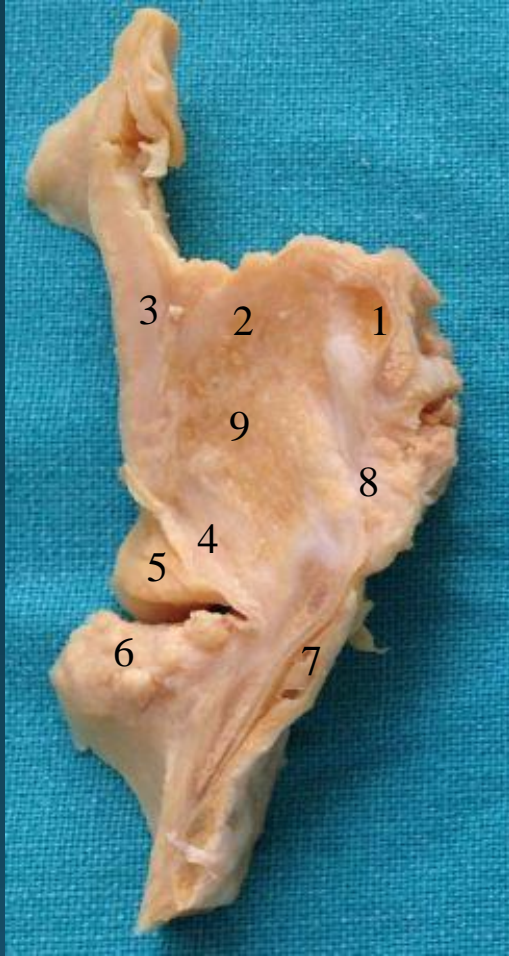
To define the correct therapeutic procedure

Computed Tomography (CT)

The pre-epiglottic space

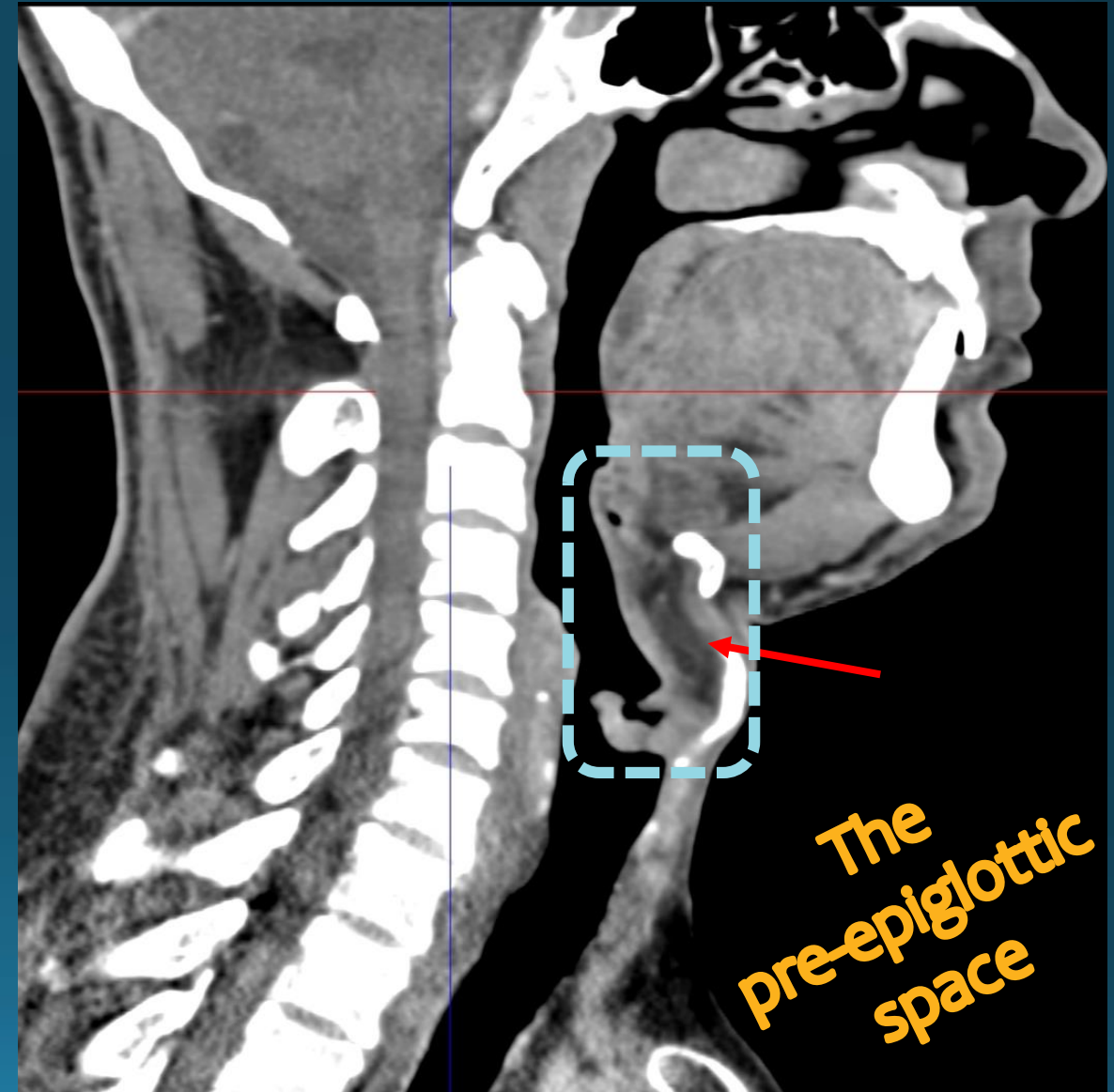


Computed Tomography (CT)



Hyoid bone (1), hyo-epiglottic membrane (2), epiglottis (3), quadrangular membrane (4), false vocal fold (5), true vocal cord (6), thyroid cartilage (7), thyro-hyoid membrane (8), pre-epiglottic space (9)

Source: Specimen from the archive of ENT department of University of Palermo (years 1950-1960)

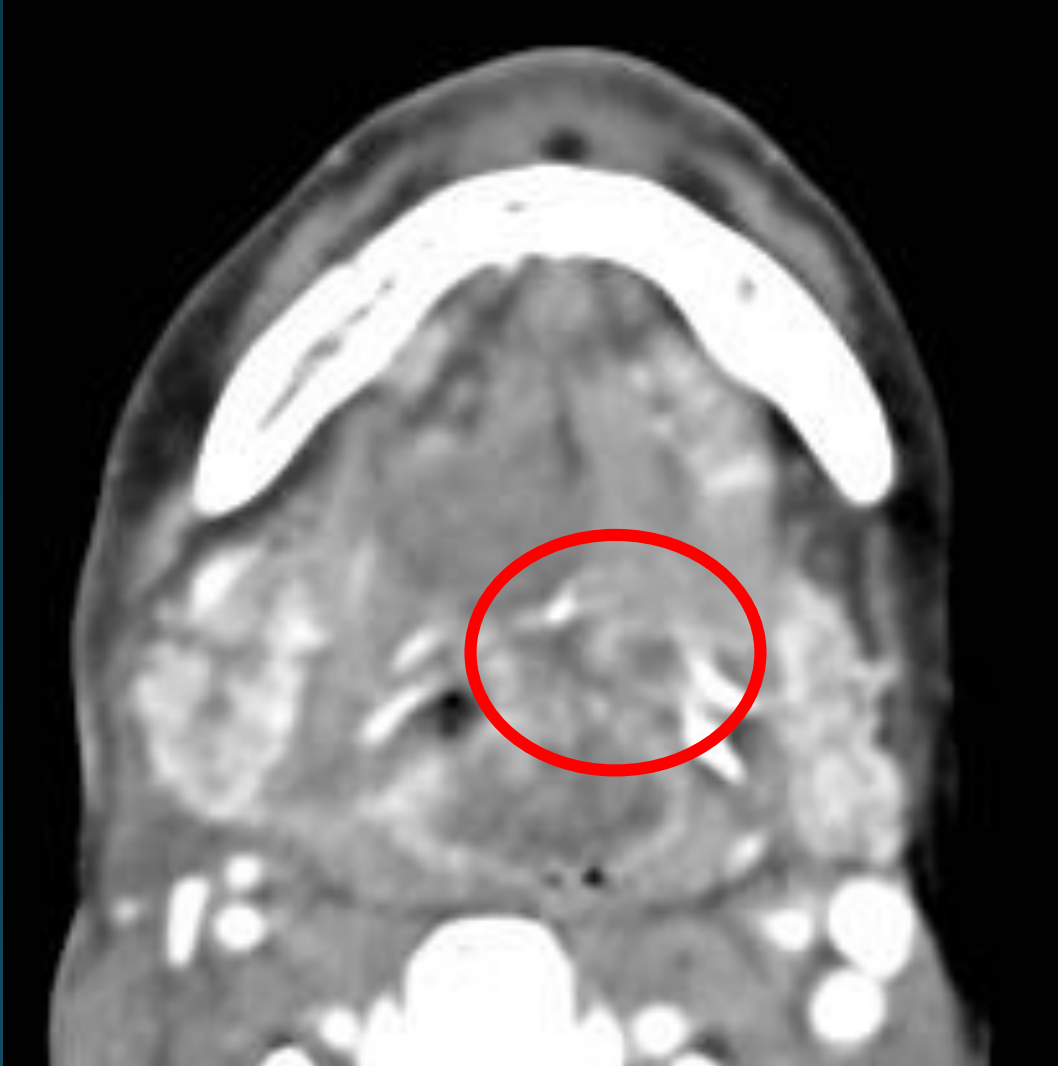


Computed Tomography (CT)



Cancer of lingual surface of epiglottis with extension to glosso-epiglottic valleculae and erosion of tongue base

Computed Tomography (CT)



Supraglottic cancer with extension to tongue and pharynx

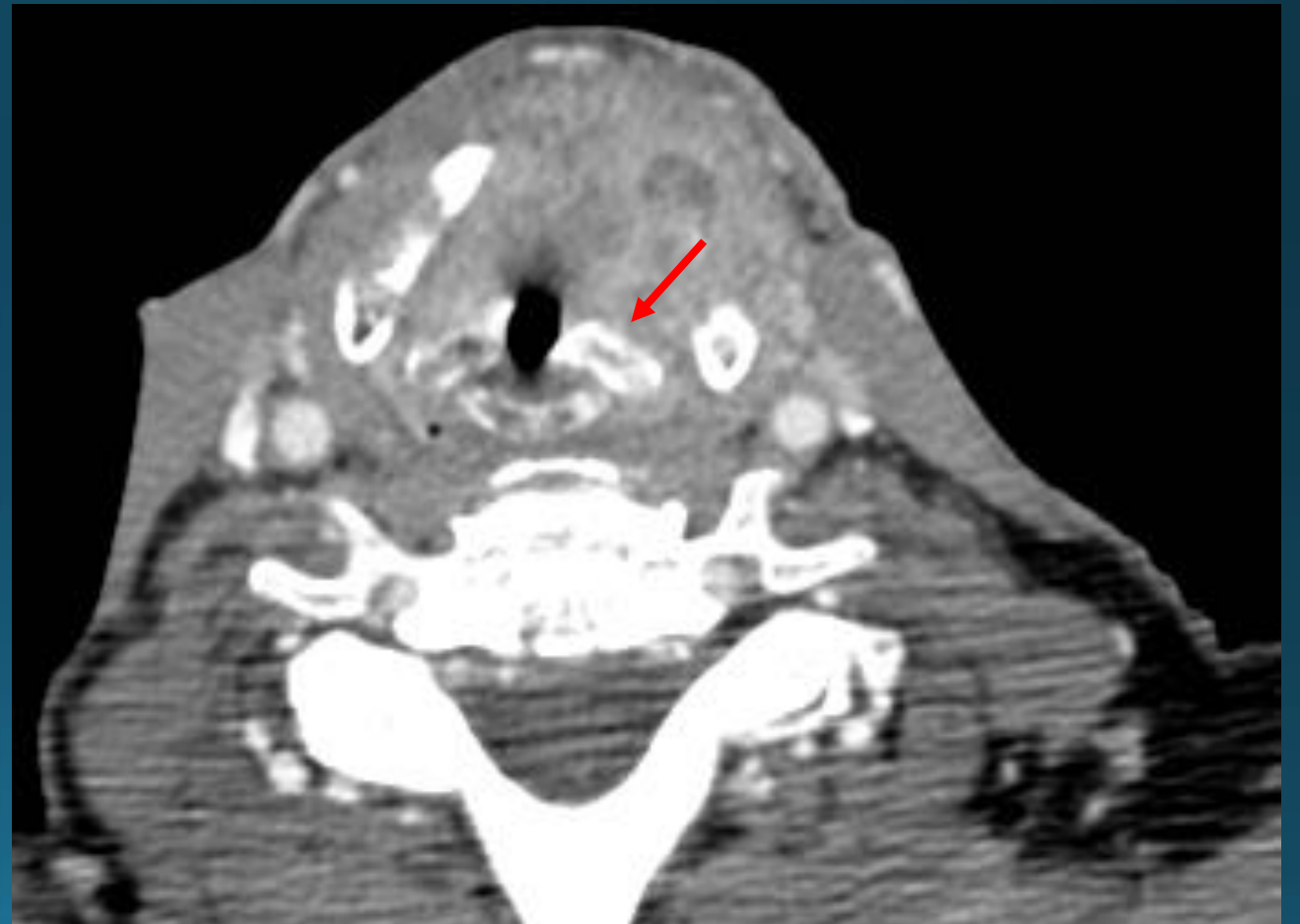
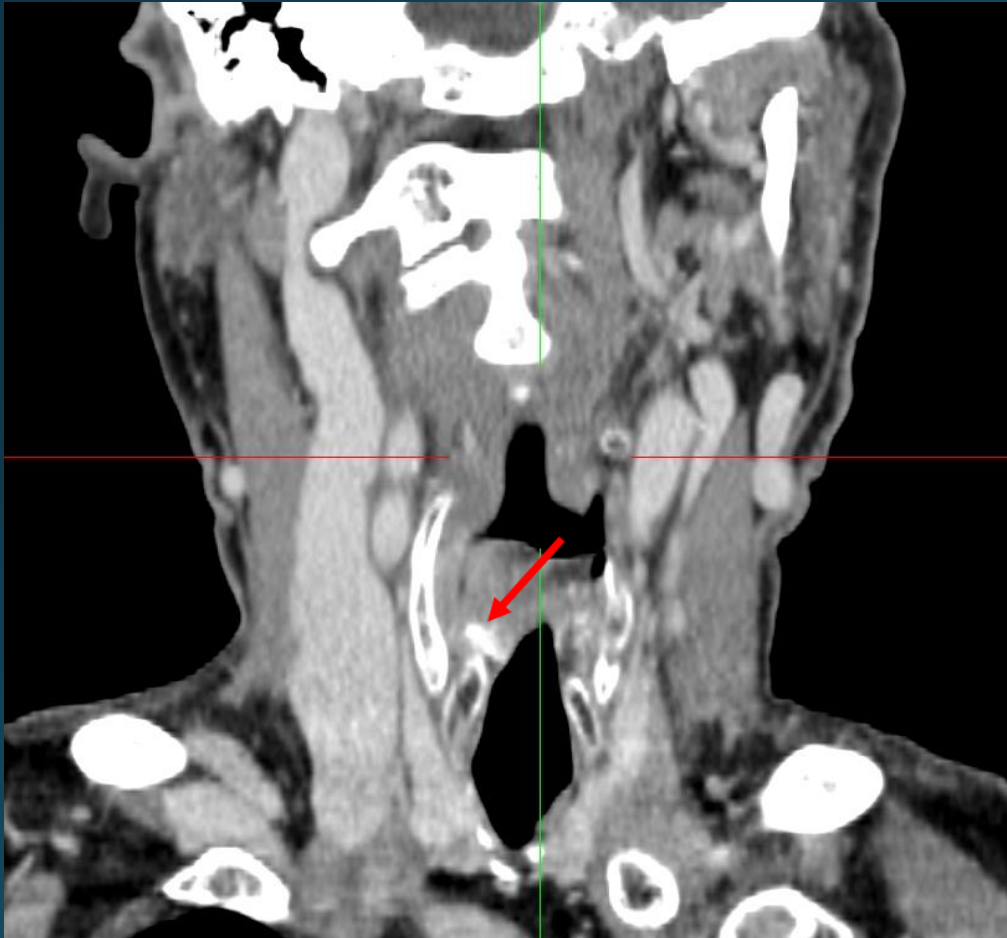
Computed Tomography (CT)



T2 right cordo-ventricular glottic cancer without extension to paraglottic space (red arrow)

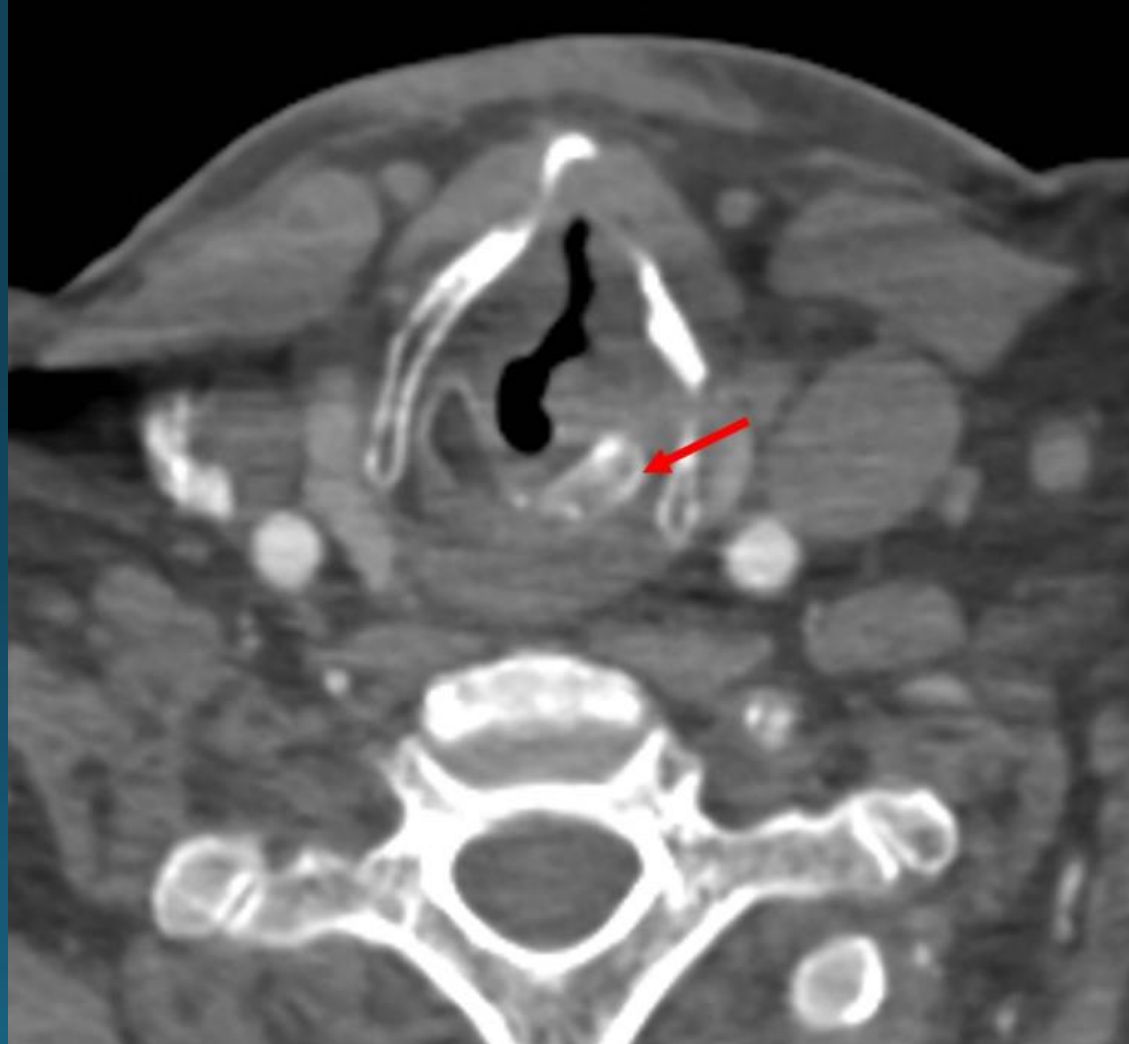
Computed Tomography (CT)

Arytenoid sclerosis



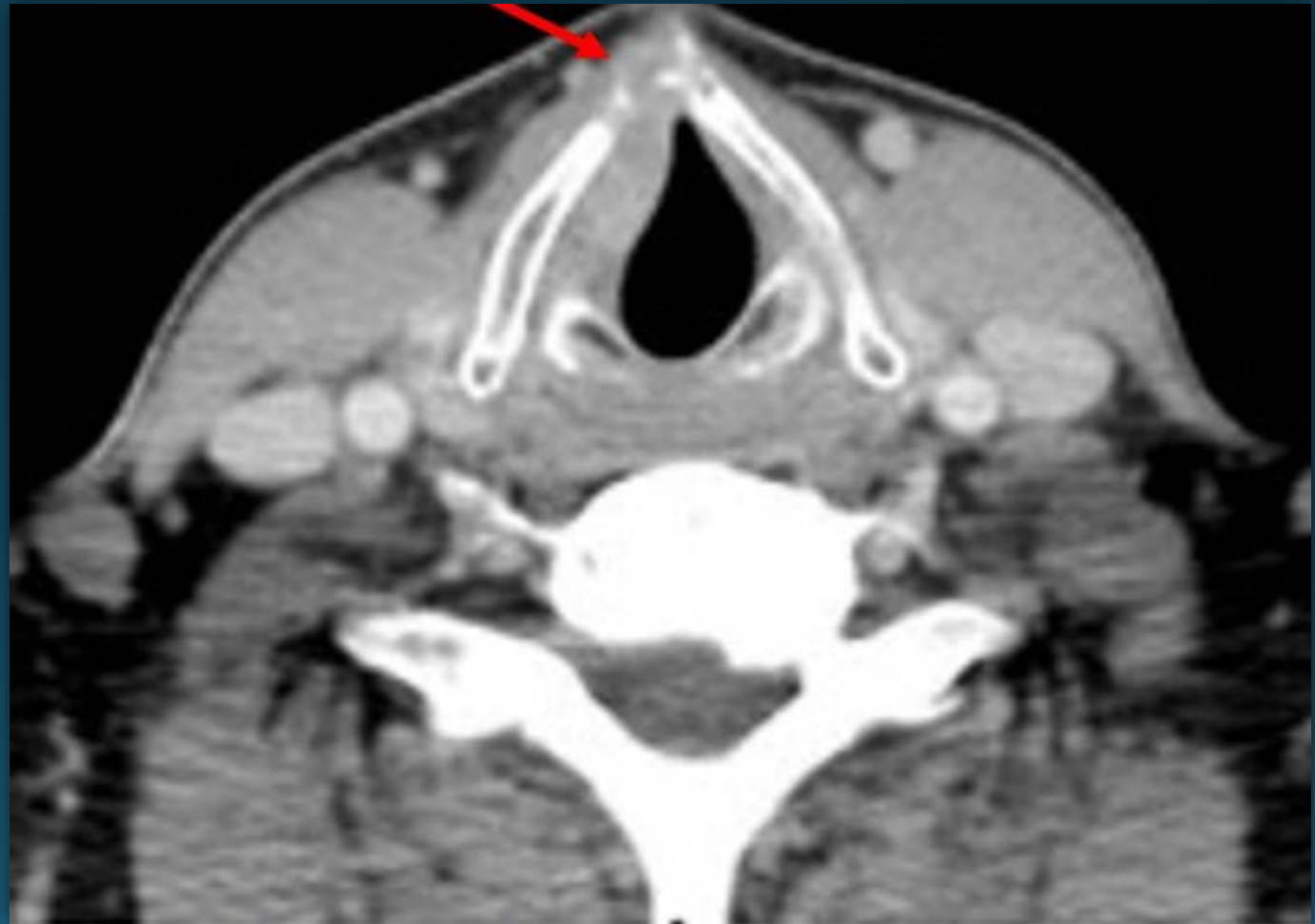
Computed Tomography (CT)

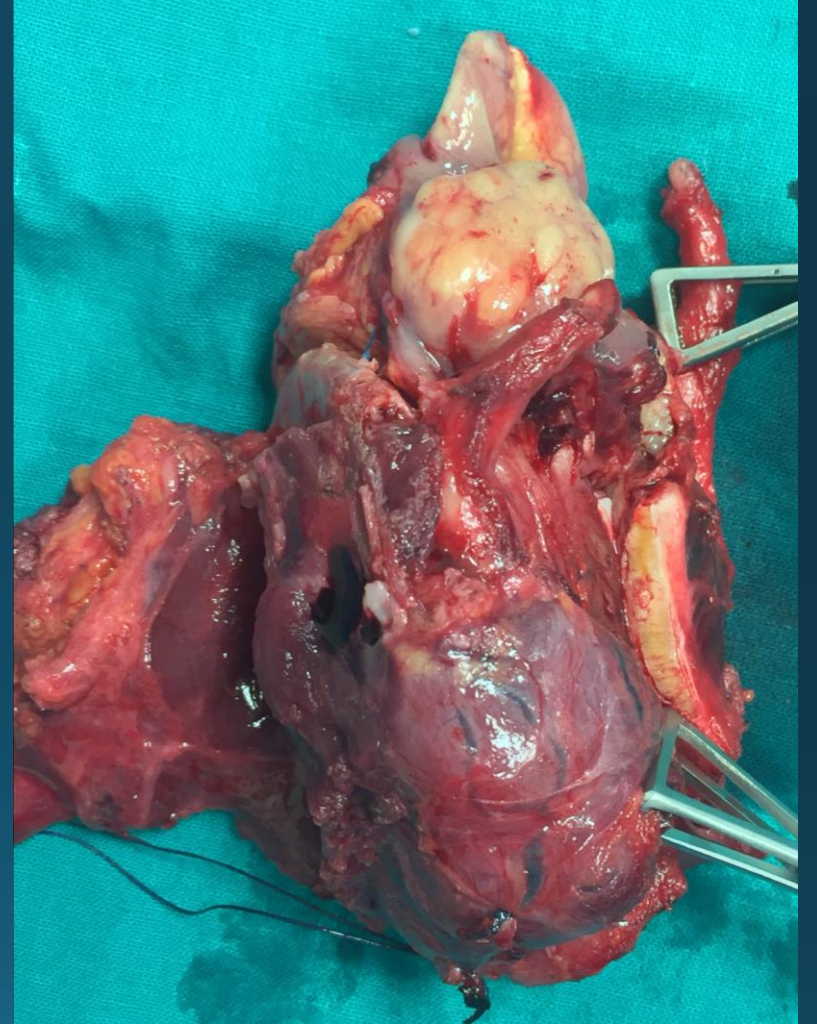
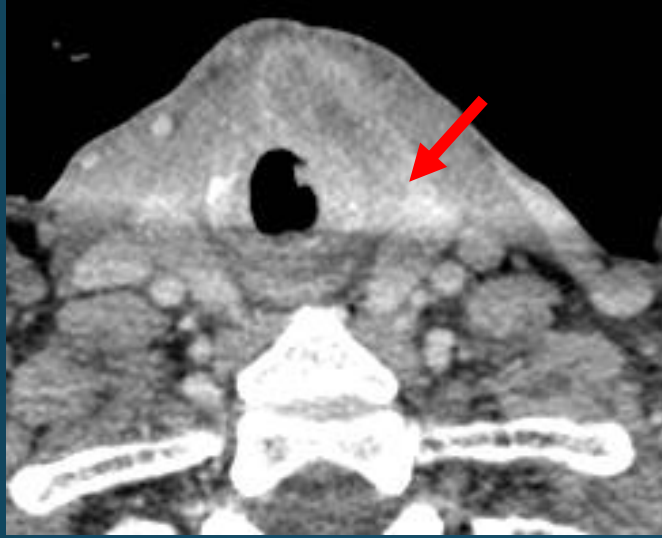
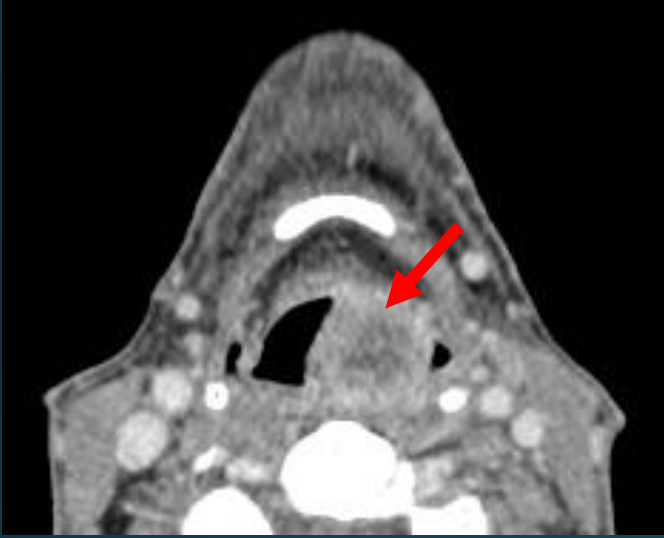
Sclerosis of the
left side of
cricoid plate



Computed Tomography (CT)

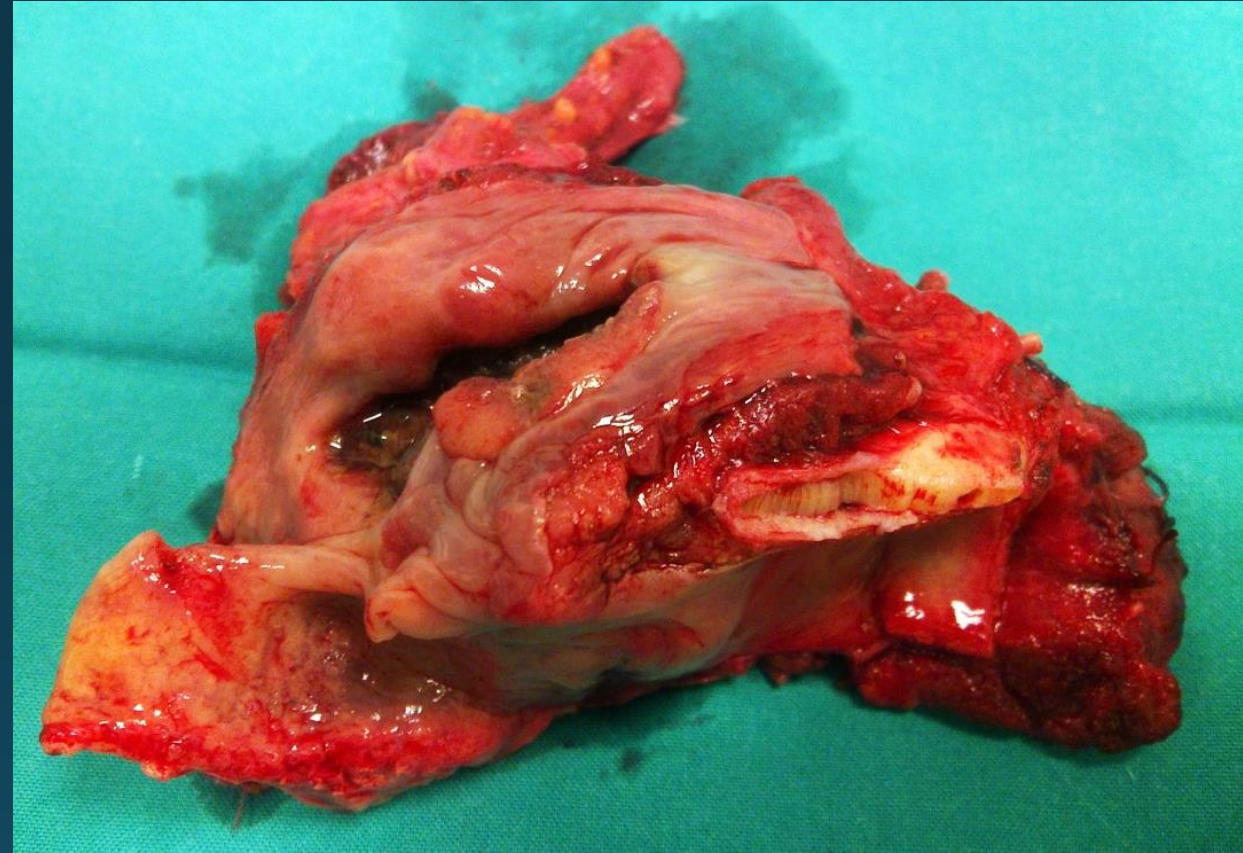
*T4a glottic cancer with
erosion of
the thyroid
cartilage
(red arrow)*



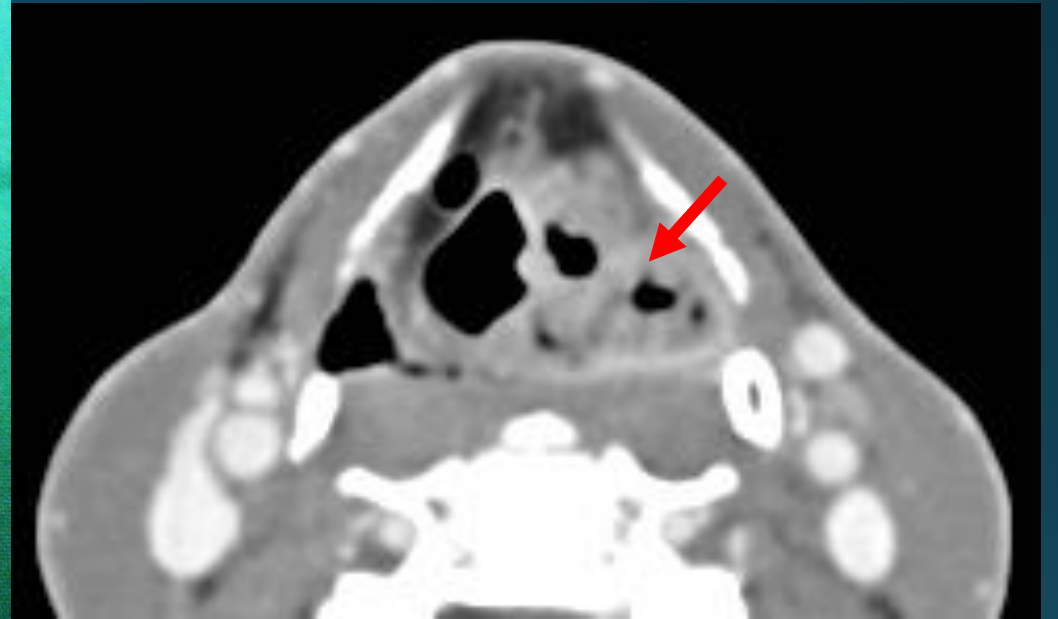


*T4a transglottic cancer
with extension to
thyroid gland*

Computed Tomography (CT)



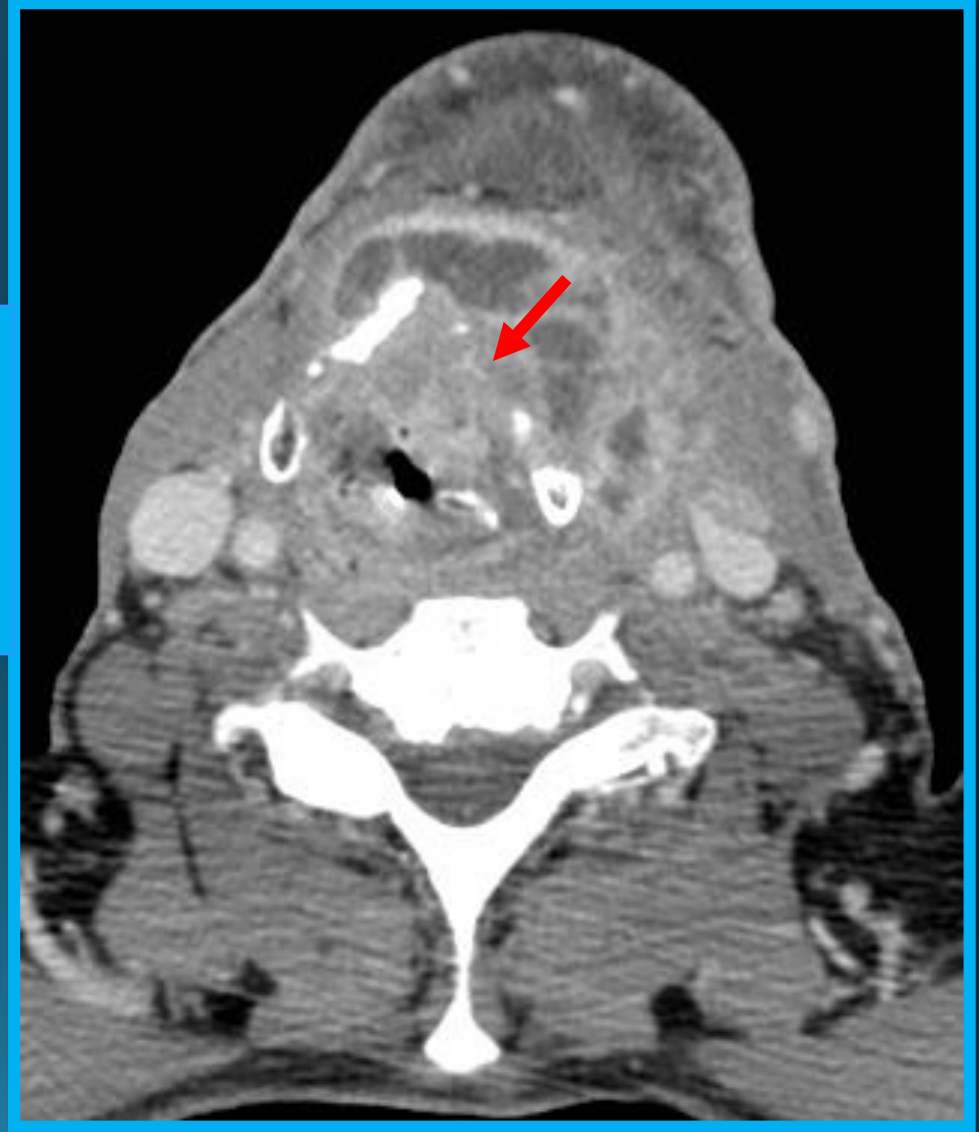
*Piriform sinus
cancer*



Computed Tomography (CT)



*Laryngopiocele
secondary to
laryngeal cancer*





*Thanks for
your attention*