

CROSS SECTIONAL HEAD AND NECK IMAGING:

A GUIDE FOR SONOGRAPHERS

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University Hospitals of Leicester

AIM

Understand, Review & Correlate

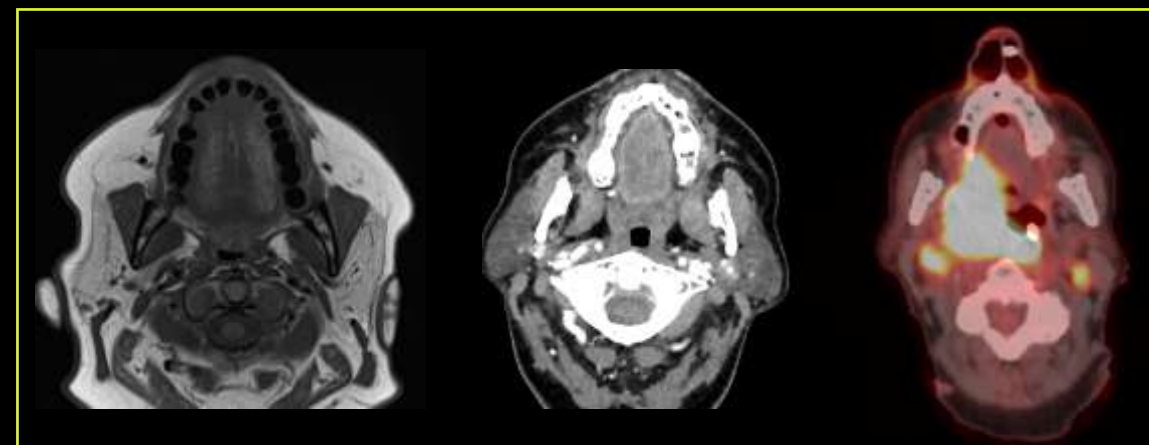
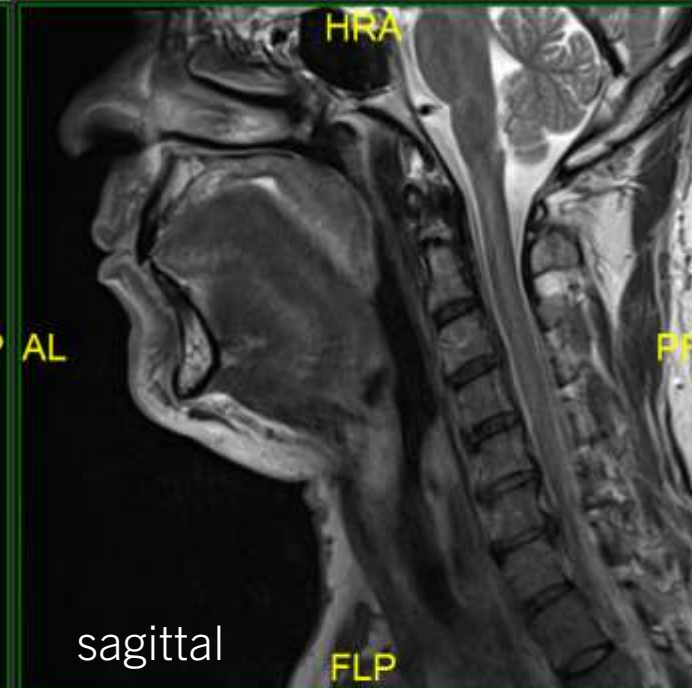
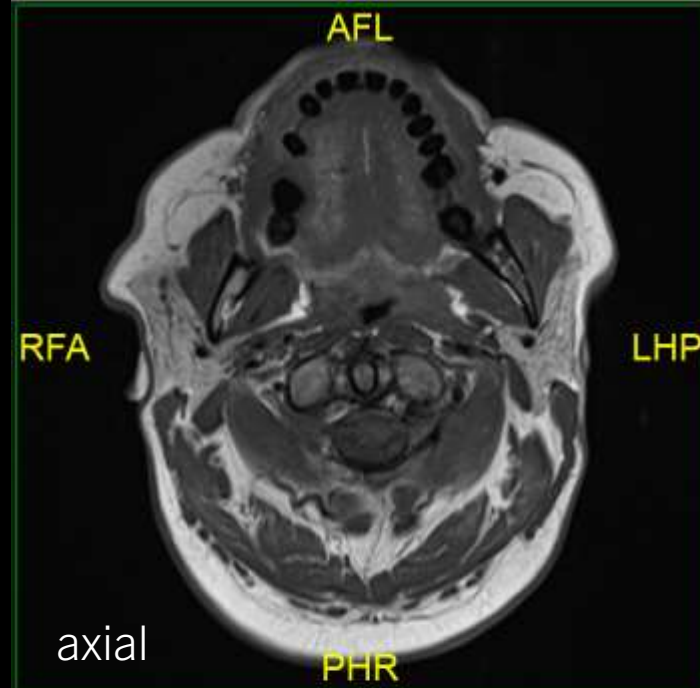
IMAGING TECHNIQUES & INTERPRETATION

KEY ANATOMICAL REGIONS

PATHOLOGY

TOP TIPS TO LEARN MORE

IMAGING TECHNIQUE & INTERPRETATION



MRI

CT

PET-CT



Measure AP x LR x CC

MRI sequences

- T1

Fat high signal

Muscle intermediate signal

Fluid low signal

- T2

Fat & fluid high signal

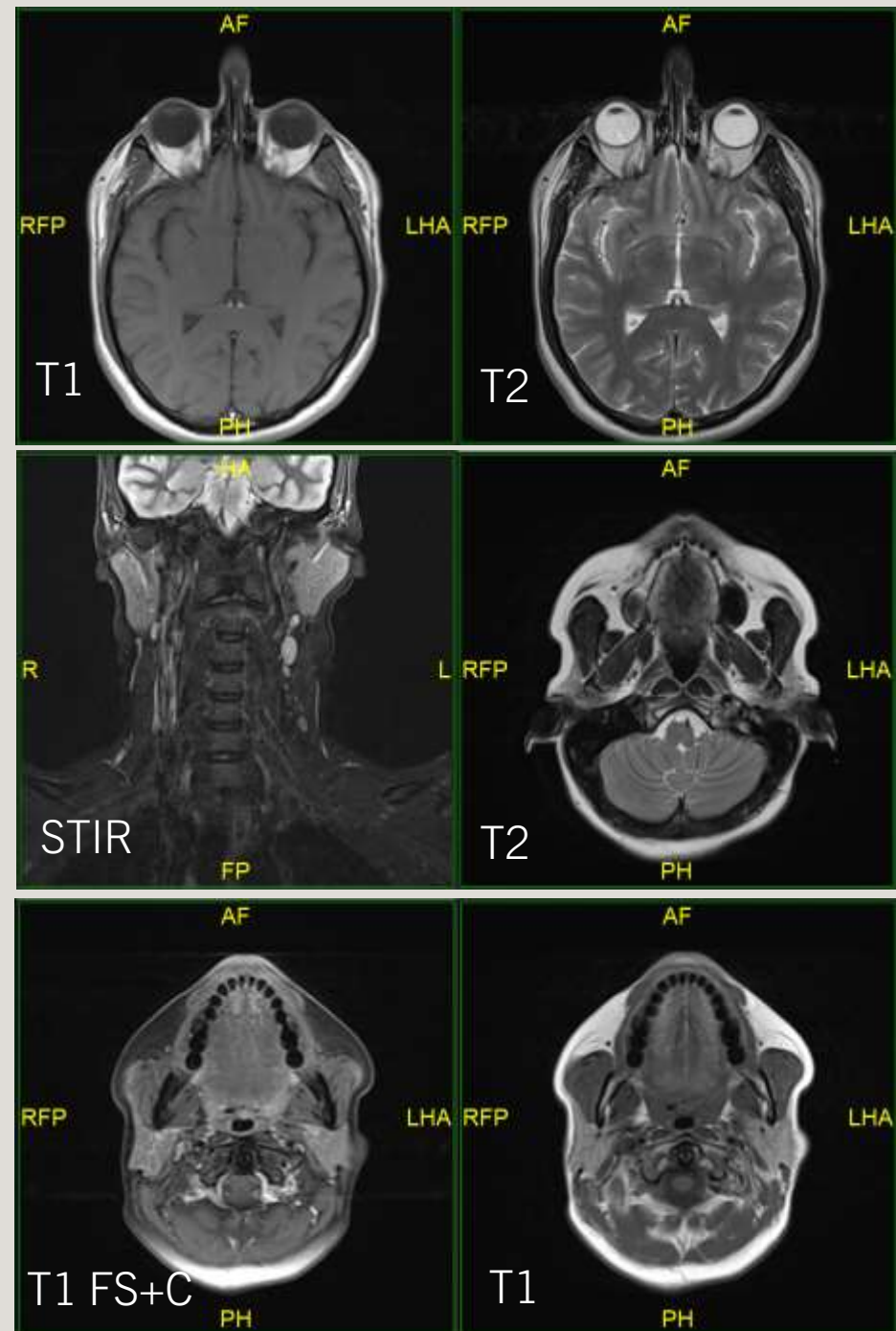
Muscle intermediate signal

- Fat suppression

Lowers signal of fat

- Contrast enhanced

Increases signal of tumours / inflammation / infection

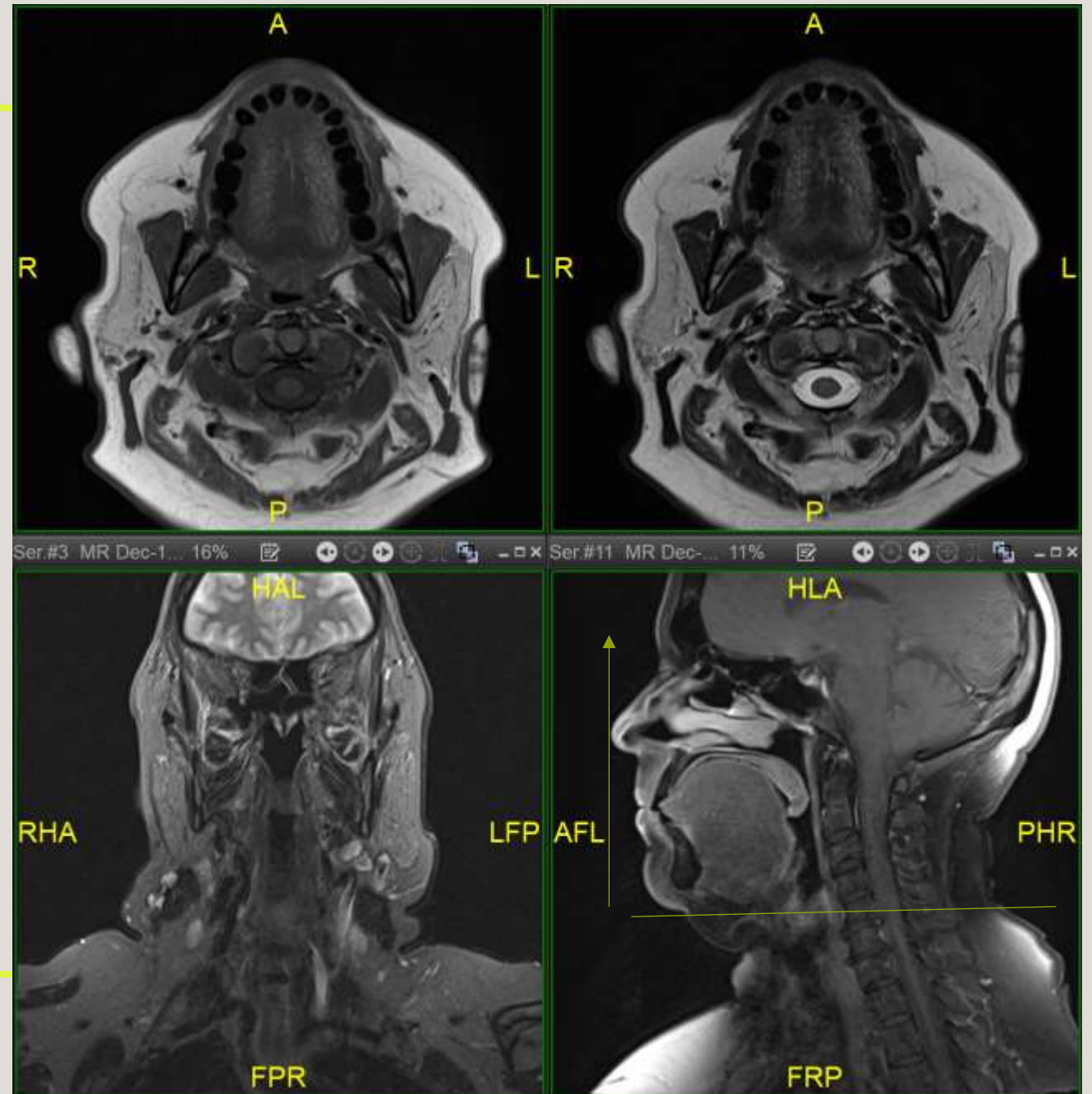


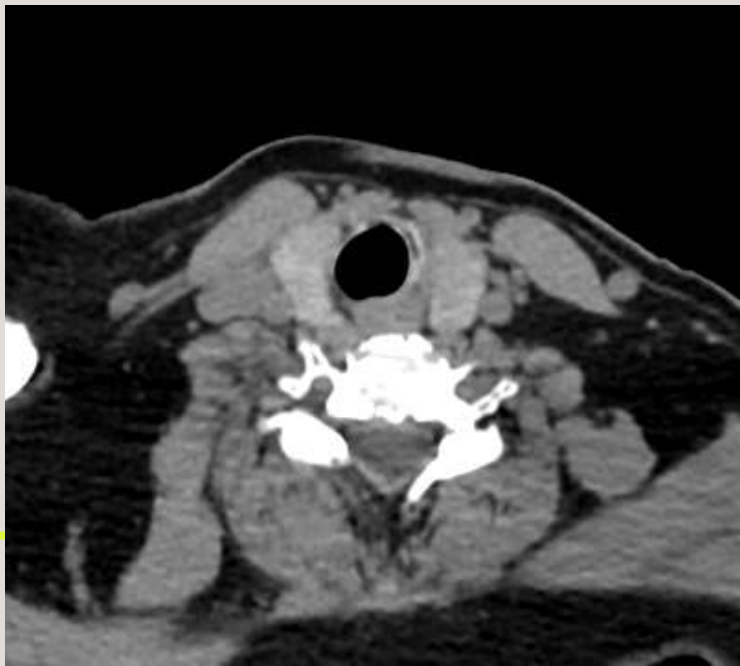
MRI

SUPRA-HYOID NECK

- + SOFT TISSUE DETAIL
- + TUMOUR EXTENT
- + PERINEURAL EXTENSION
- + LESS DENTAL ARTIFACT

- LONG SCAN
- CONSIDER MRI SAFETY





CT

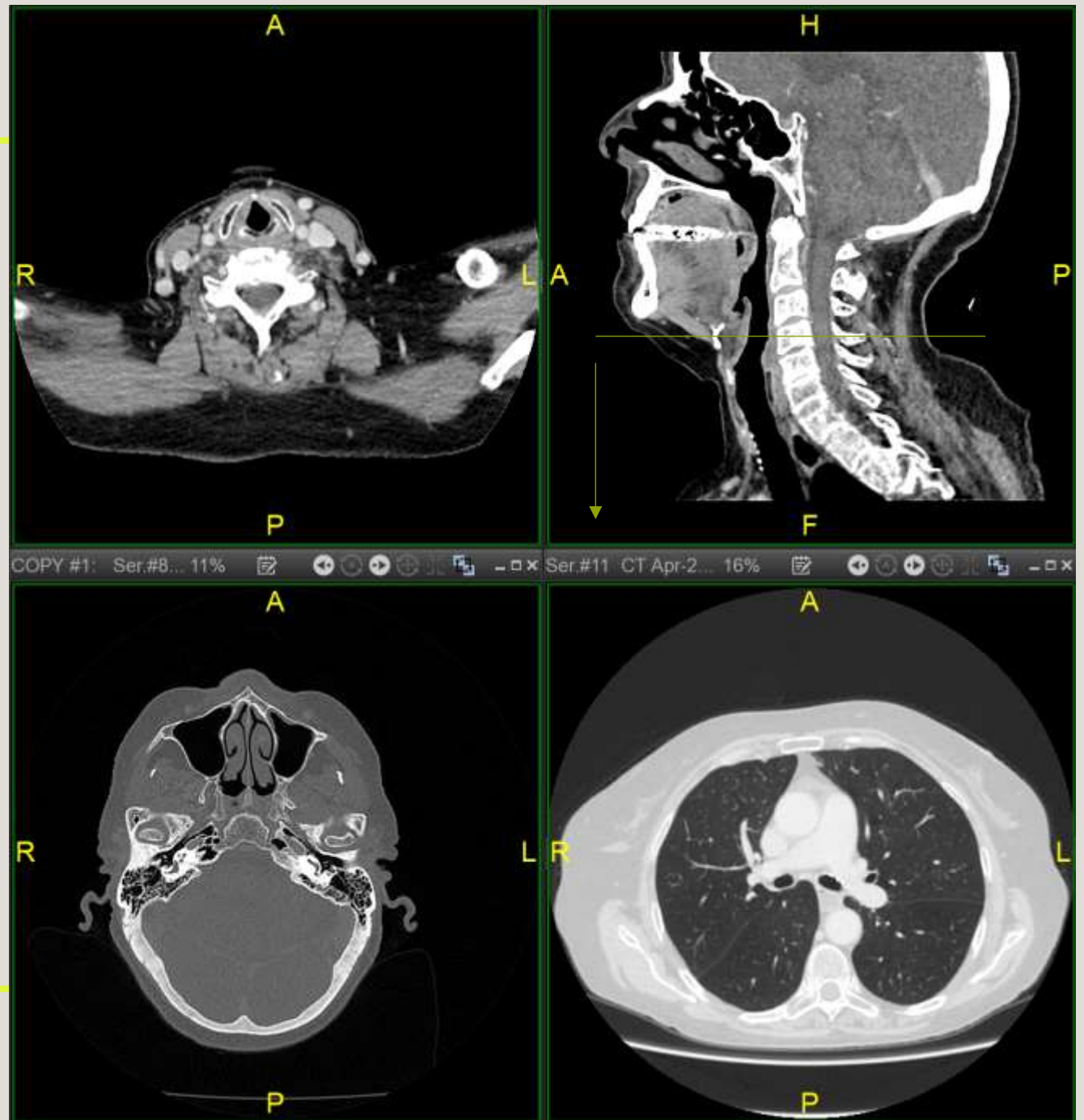
- High density (bone)
 - Low density (fat)
 - IV Contrast
- Used to visualise
- CV system
 - Tumour enhancement/inflammation/infection

CT

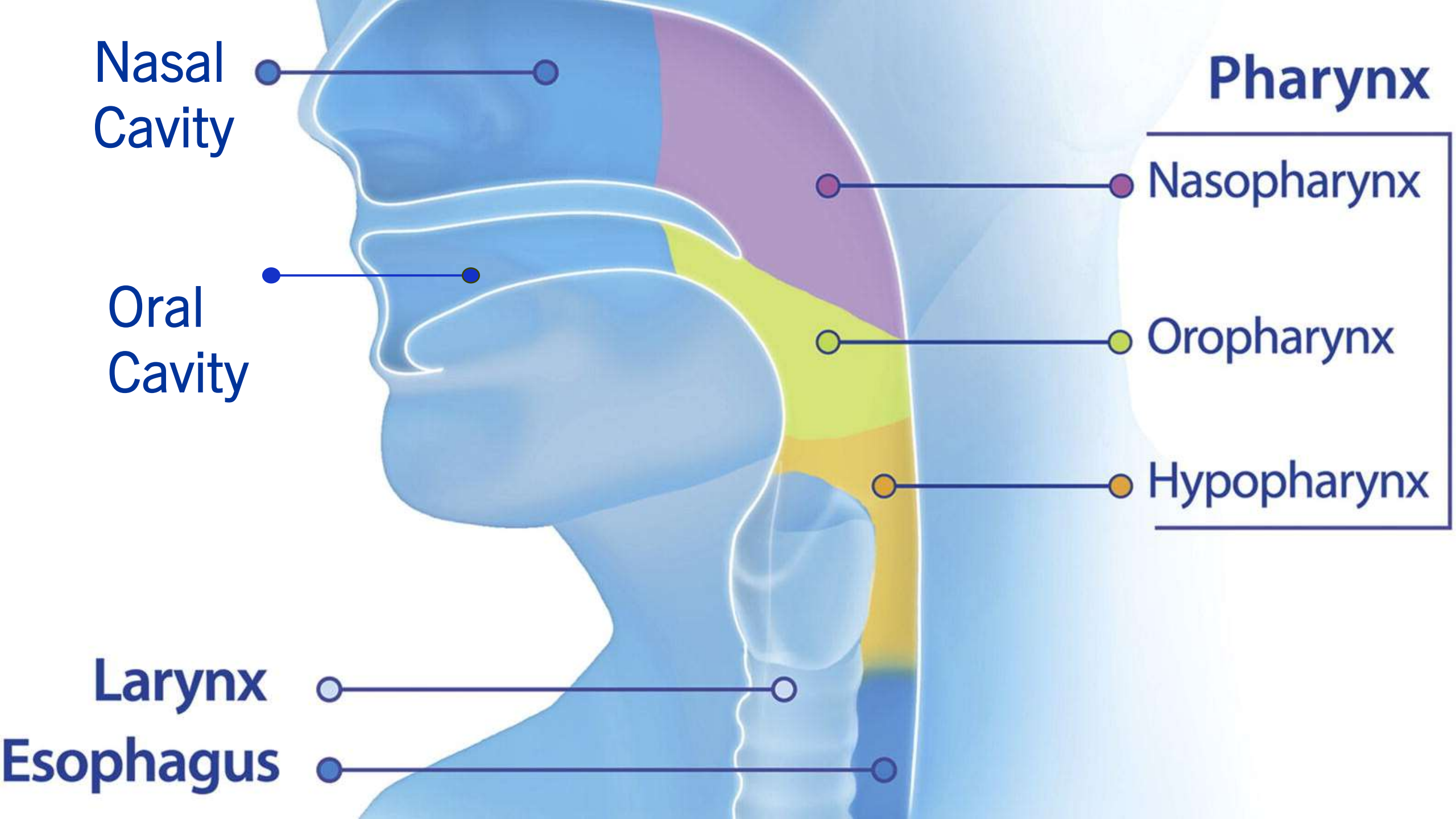
INFRA-HYOID NECK

- + REDUCED MOVEMENT ARTEFACT
- + THIN SLICES
- + MULTIPLANAR RECONSTRUCTION
- + SKULL BASE INVOLVEMENT
- + CHEST / ABDOMEN

- REDUCED SOFT TISSUE DETAIL
- CONSIDER RADIATION SAFETY



**SUBSITES,
SPACES
&
ANATOMY**



Nasal
Cavity

Oral
Cavity

Larynx

Esophagus

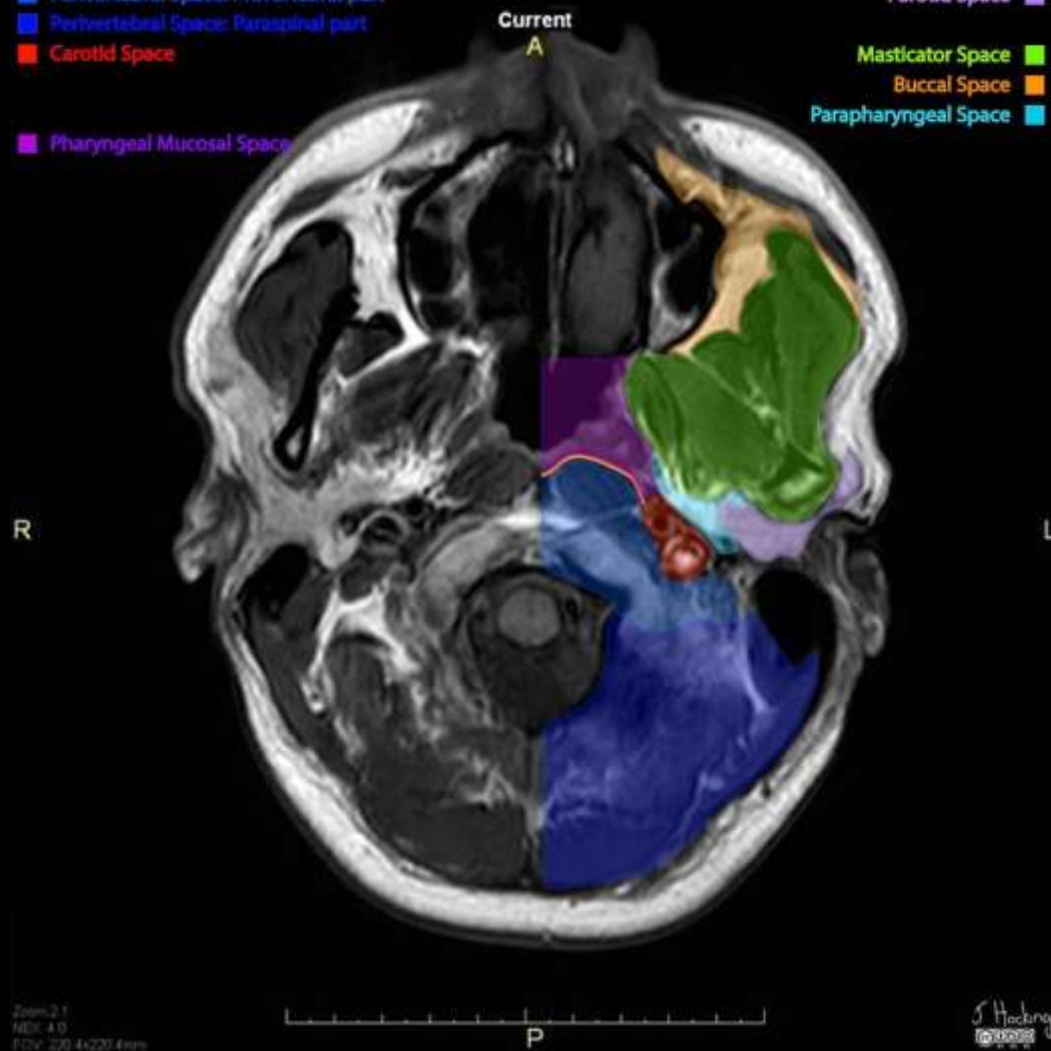
Pharynx

Nasopharynx

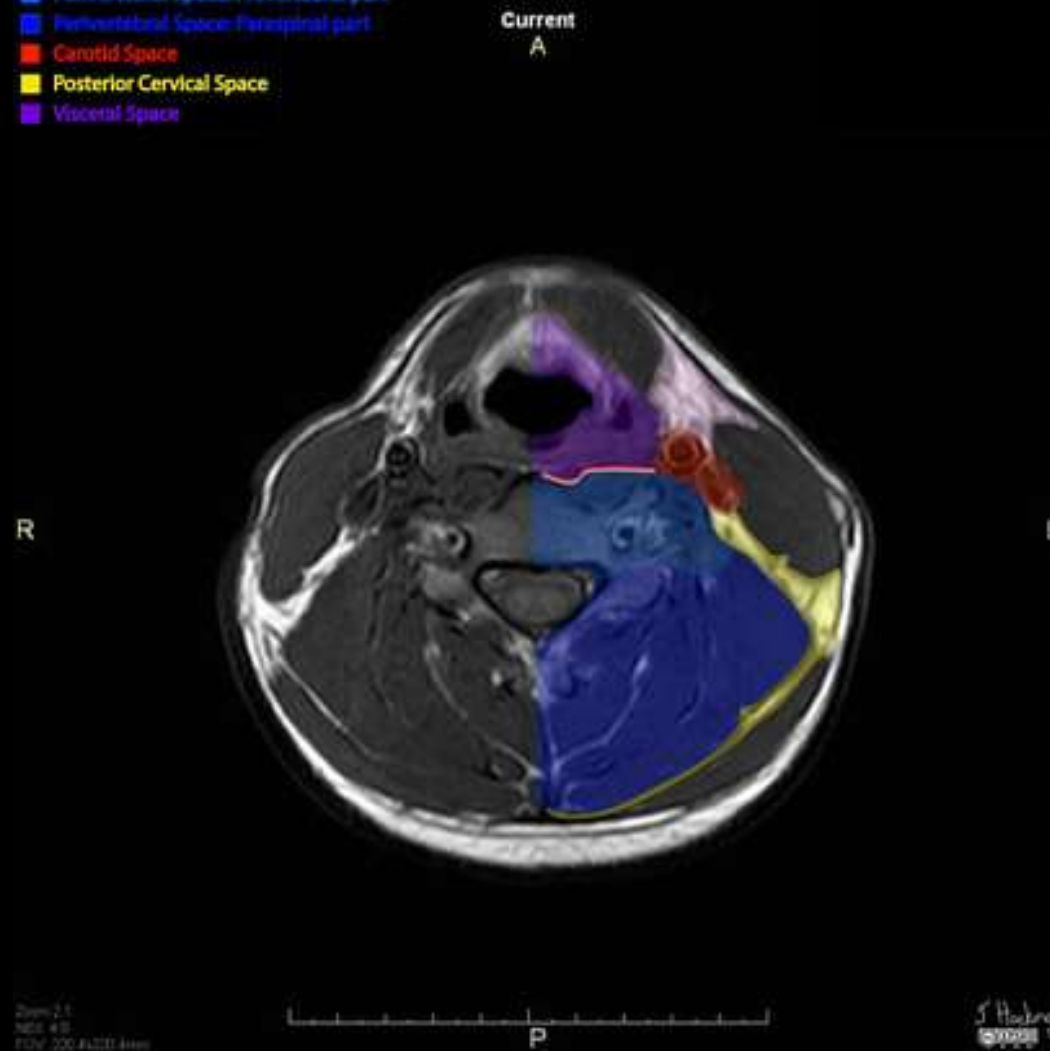
Oropharynx

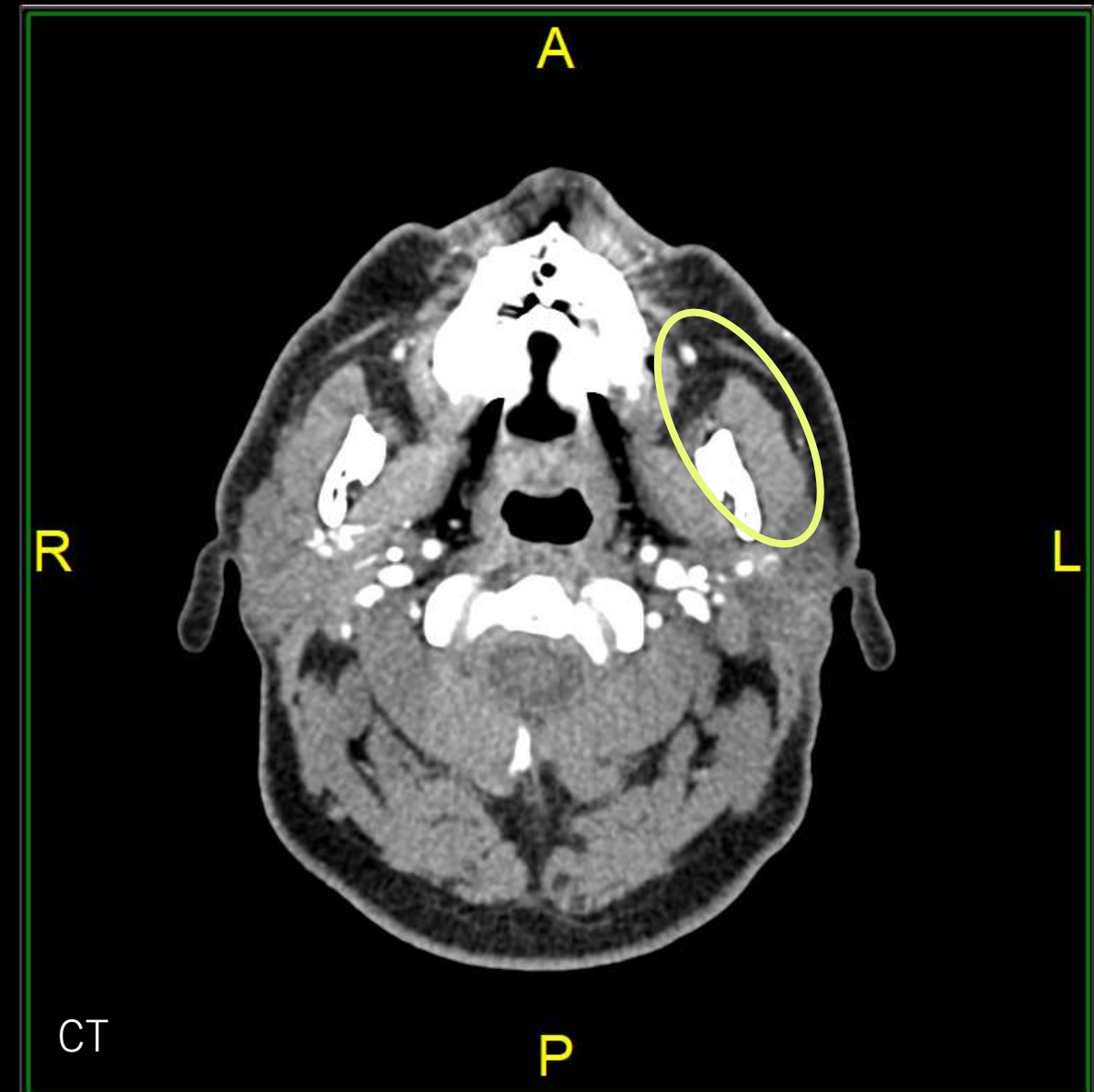
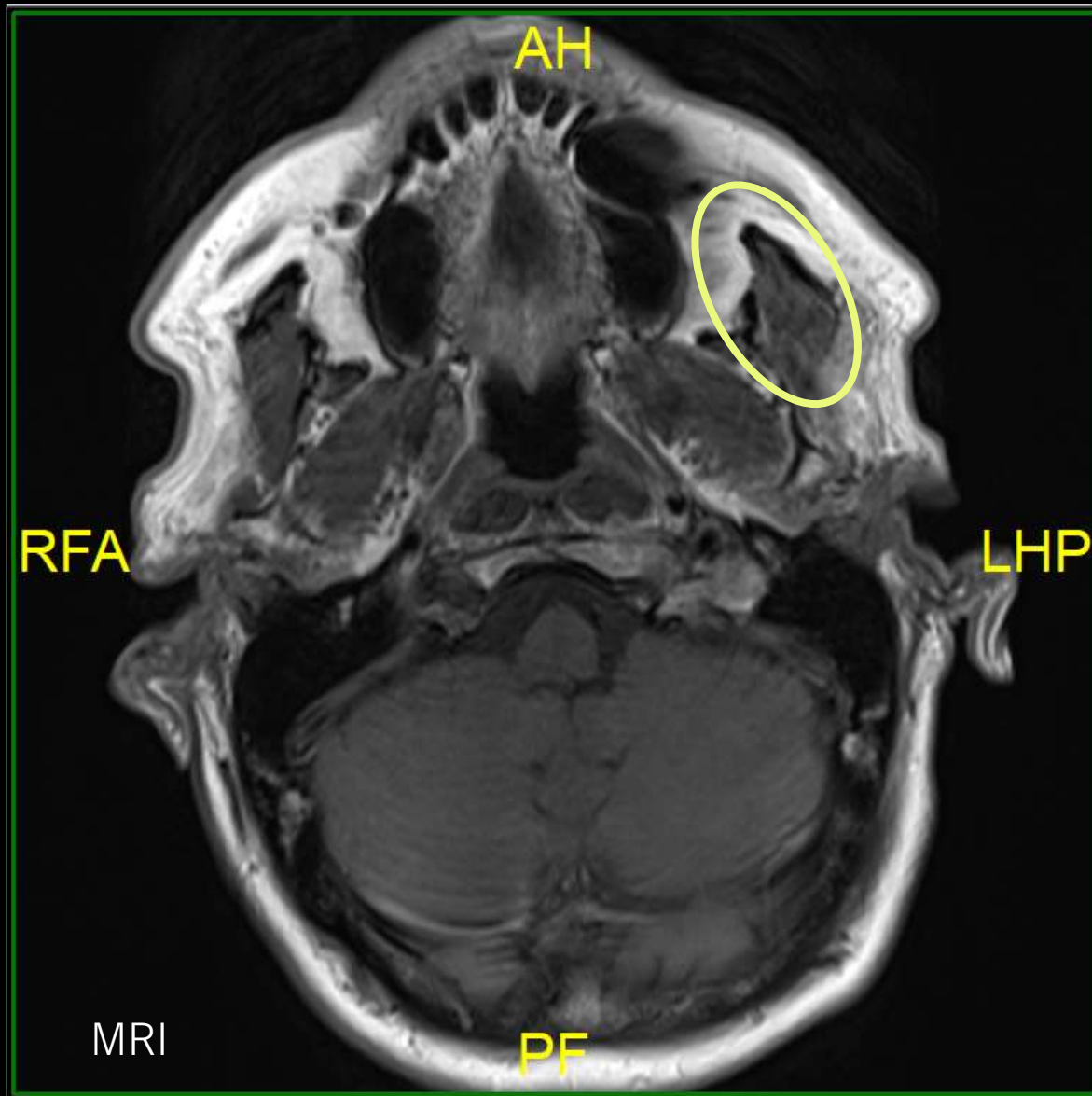
Hypopharynx

- Retropharyngeal Space
- Danger Space
- Perivertebral Space: Prevertebral part
- Perivertebral Space: Paraspinal part
- Carotid Space
- Pharyngeal Mucosal Space
- Parotid Space
- Masticator Space
- Buccal Space
- Parapharyngeal Space

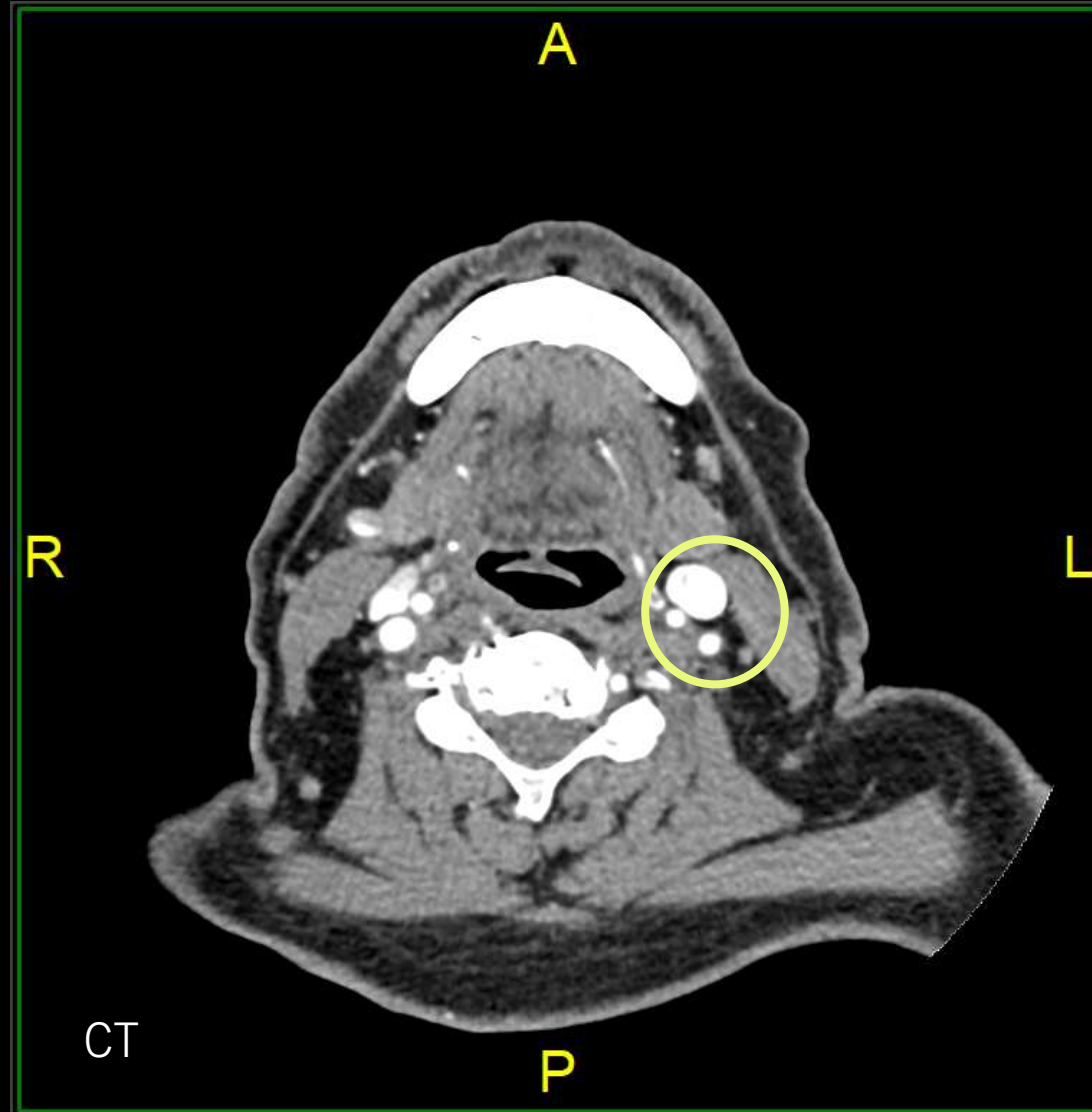
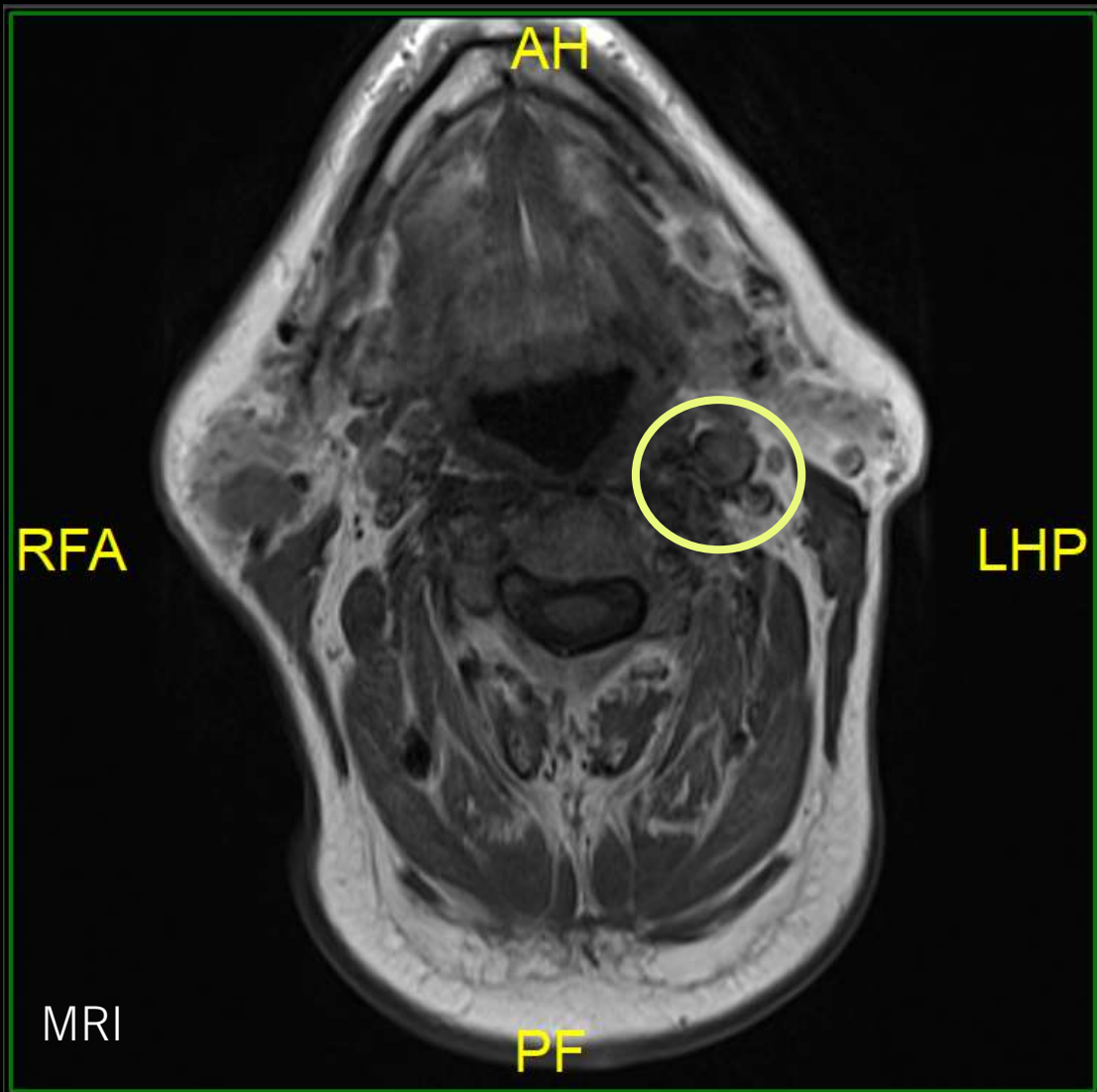


- Retropharyngeal Space
- Danger Space
- Perivertebral Space: Prevertebral part
- Perivertebral Space: Paraspinal part
- Carotid Space
- Posterior Cervical Space
- Visceral Space
- Anterior Cervical Space

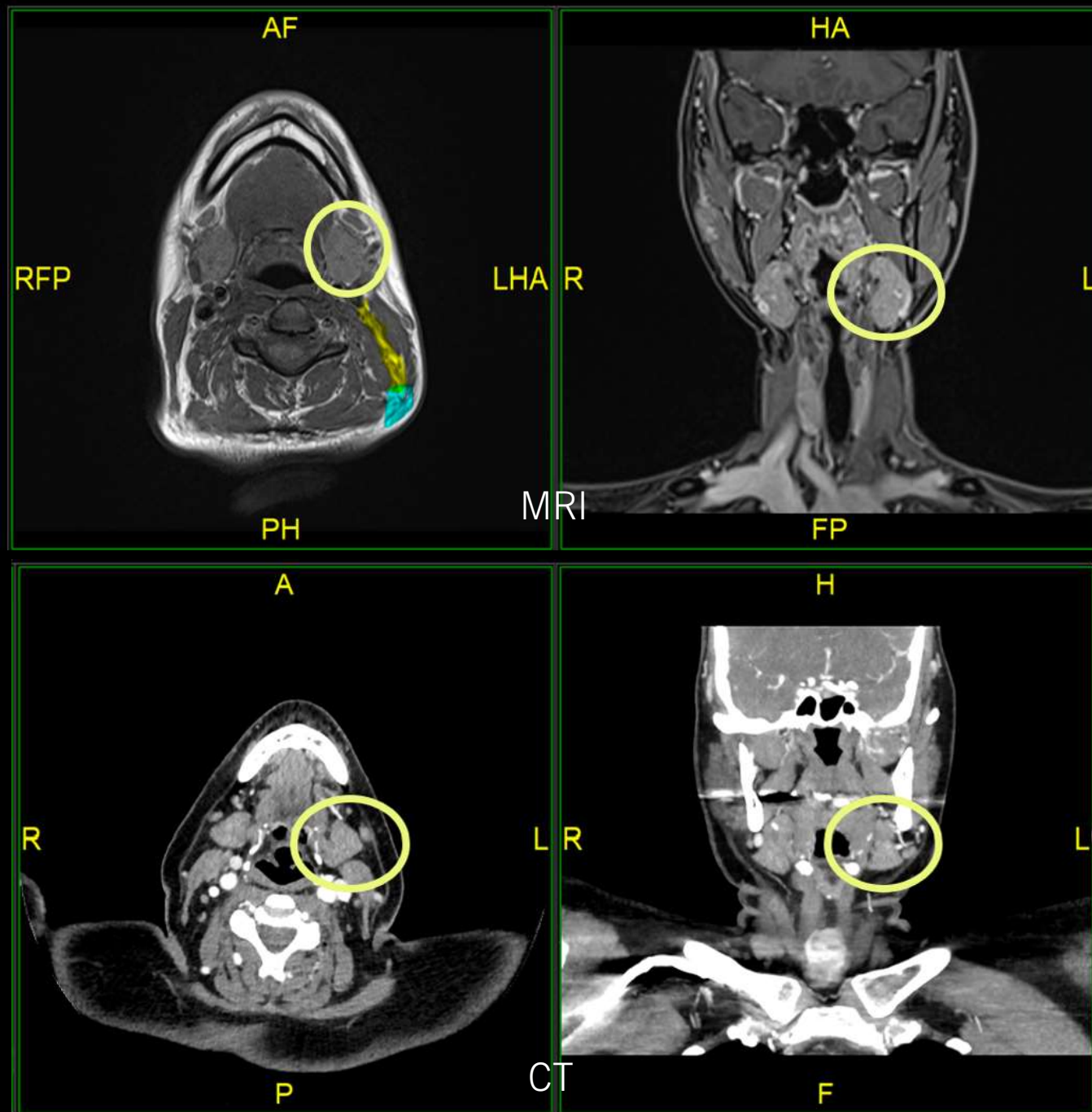




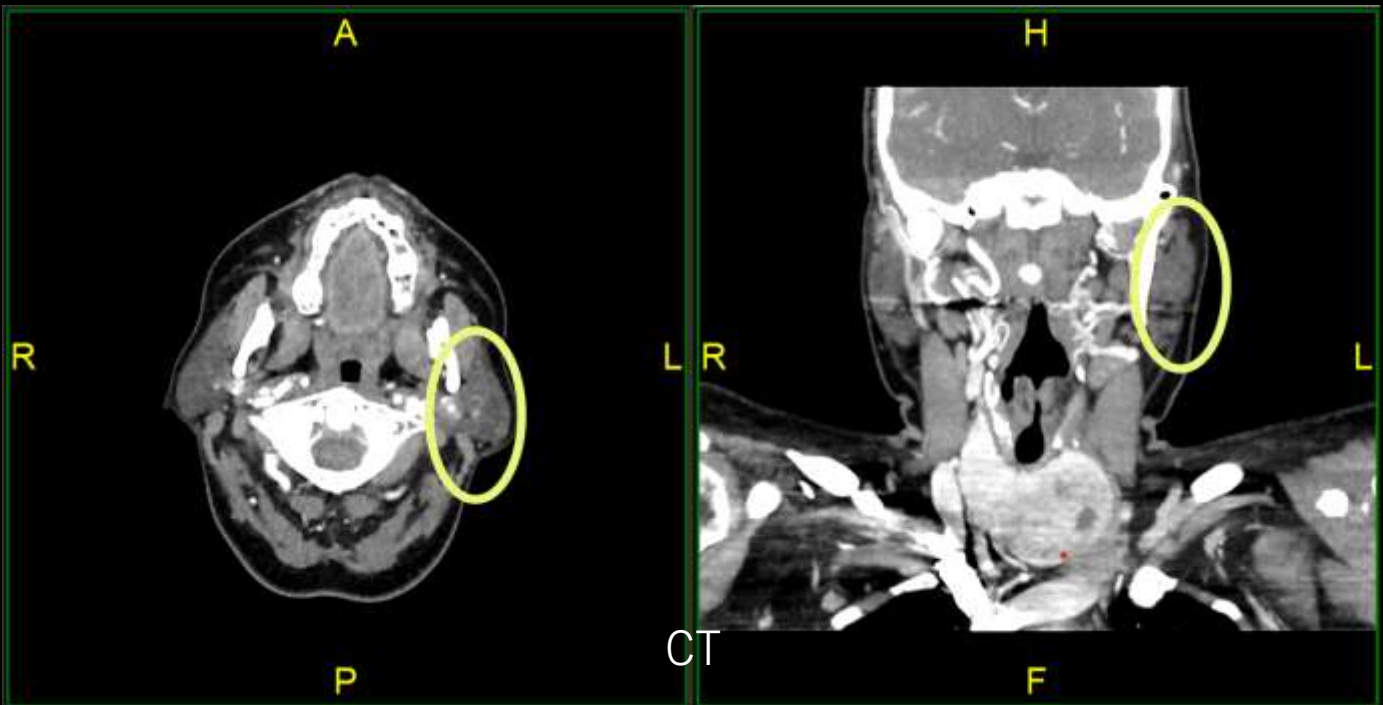
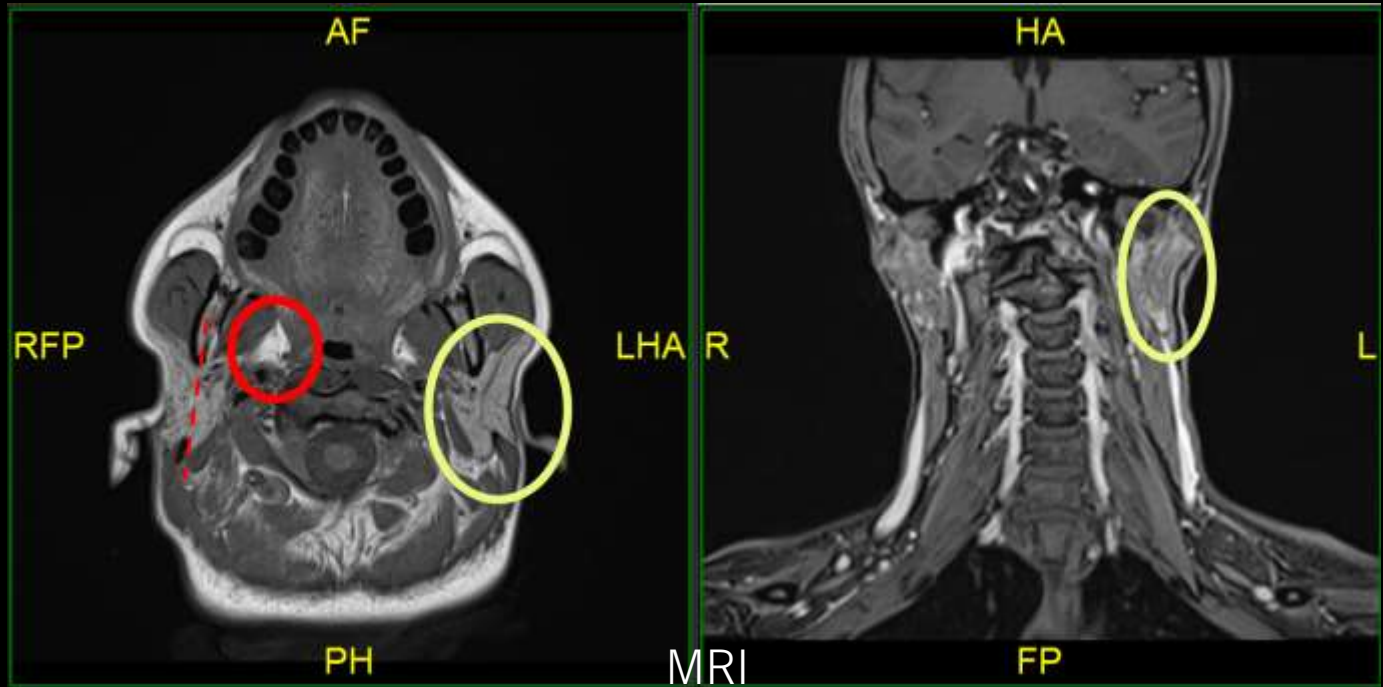
Buccal & Masticator Space



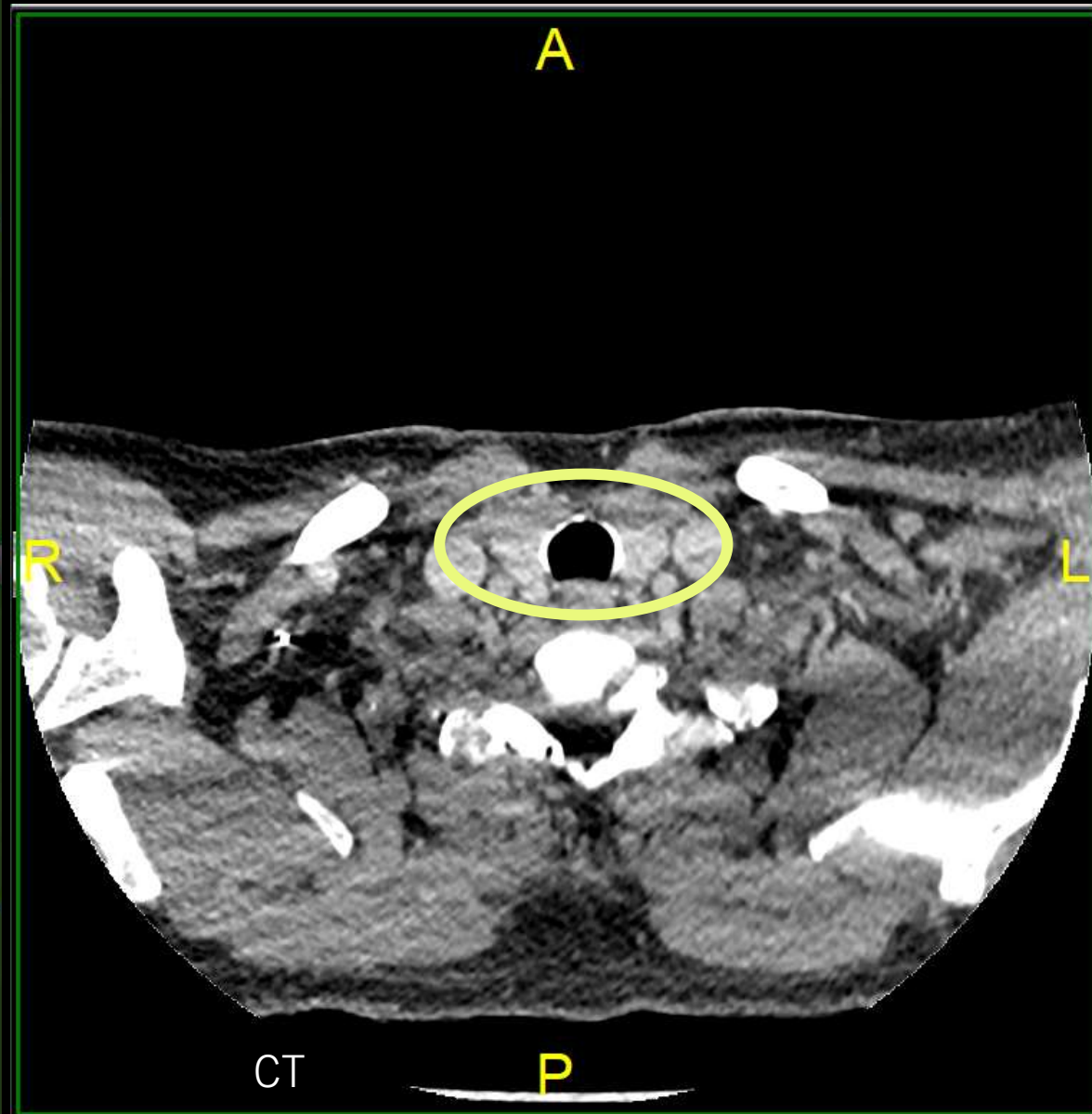
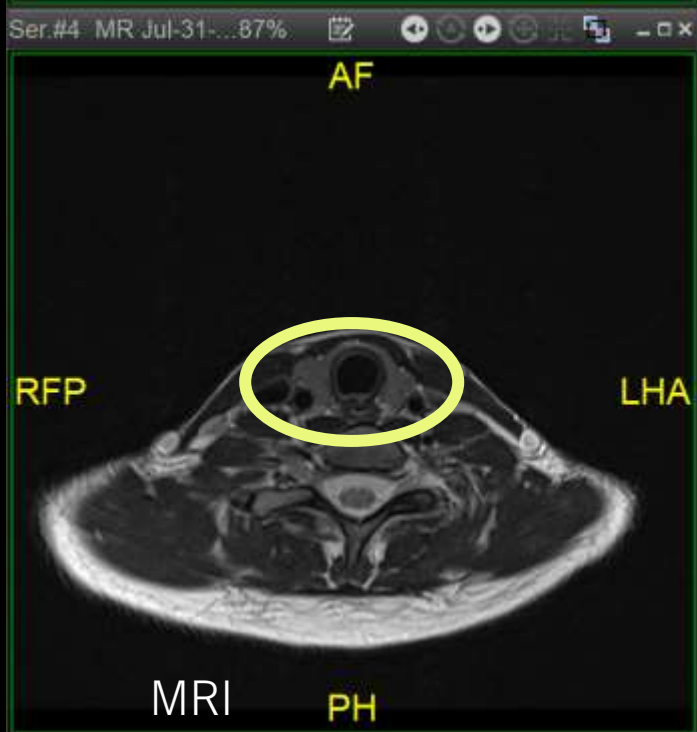
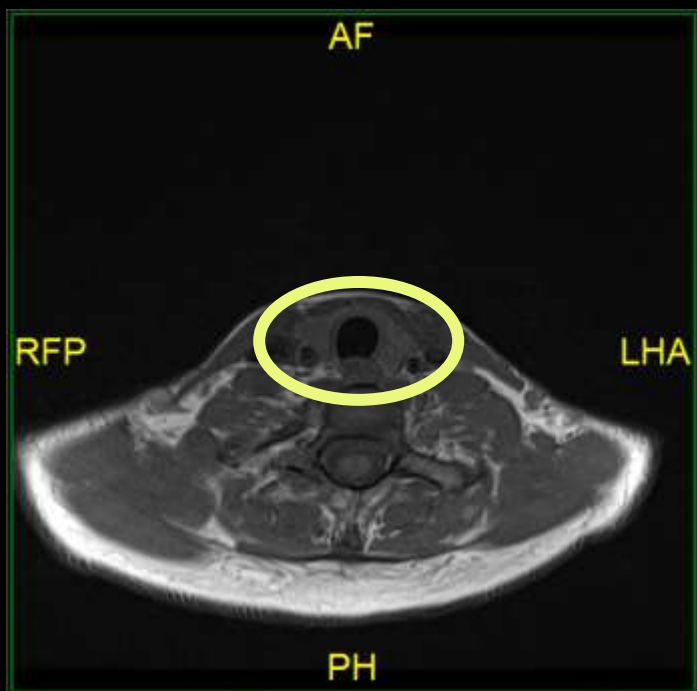
Carotid Space



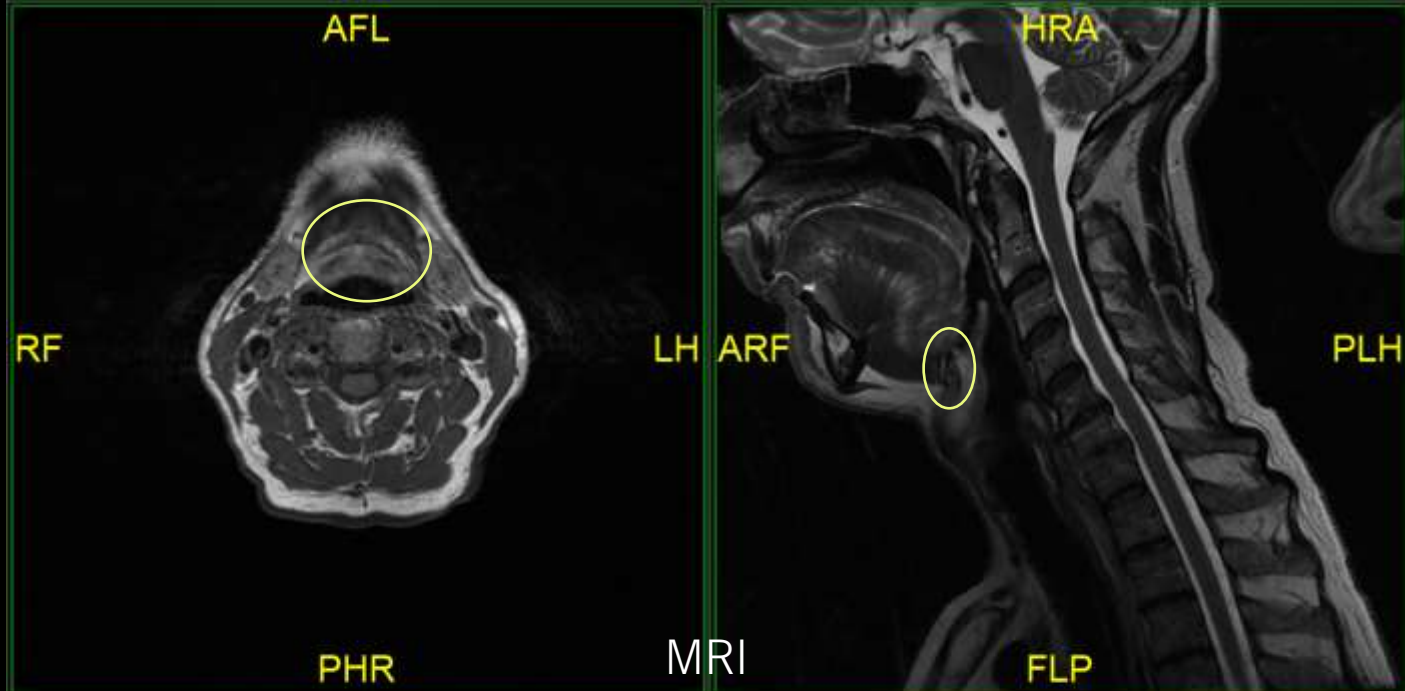
Submandibular Space



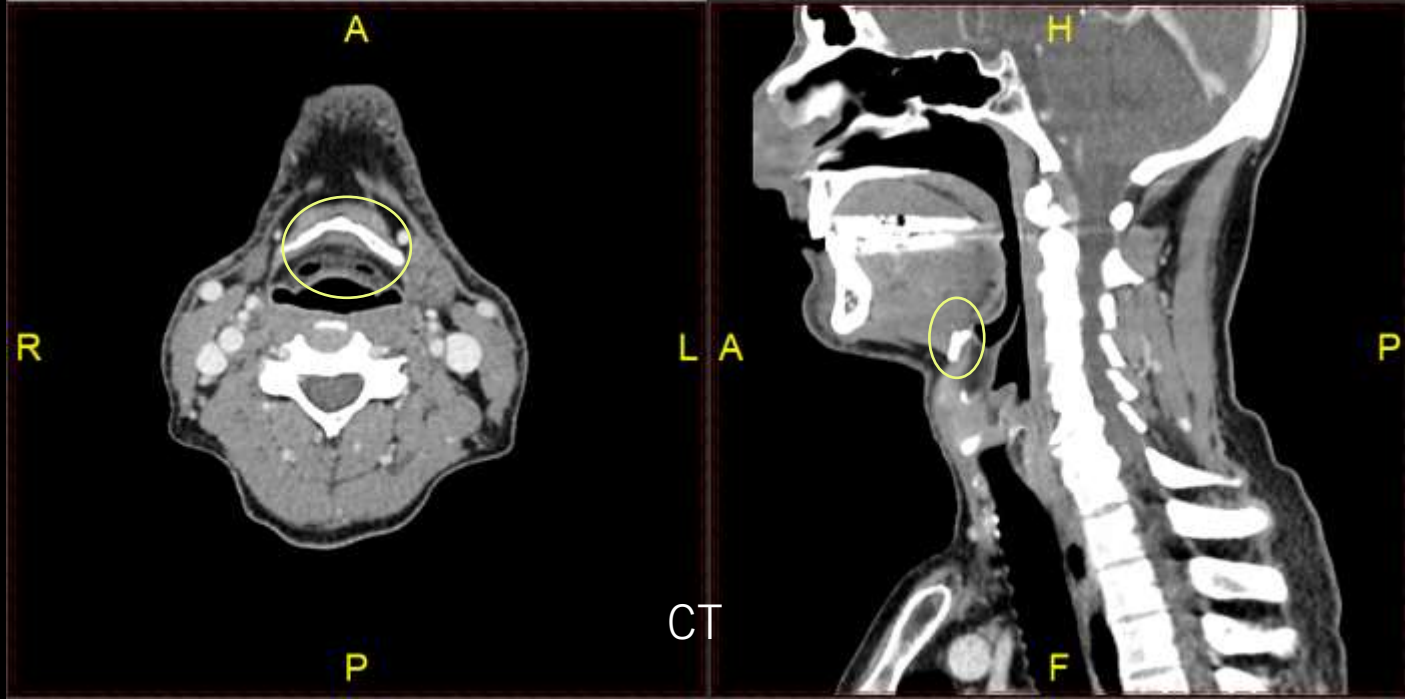
Parotid Space



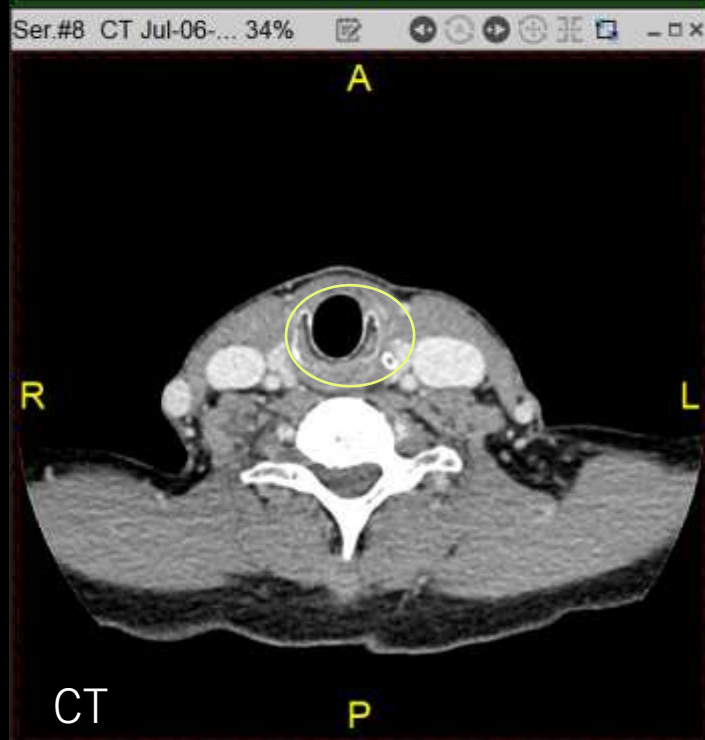
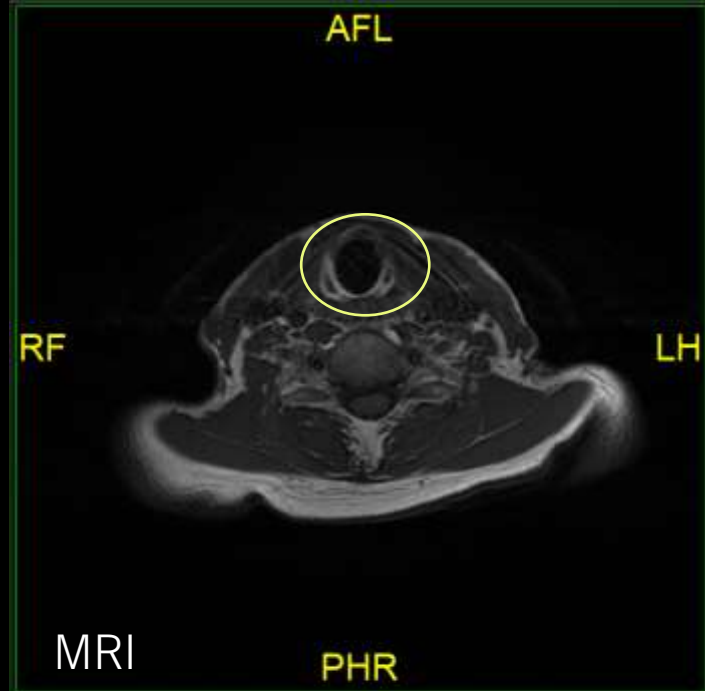
Visceral Space



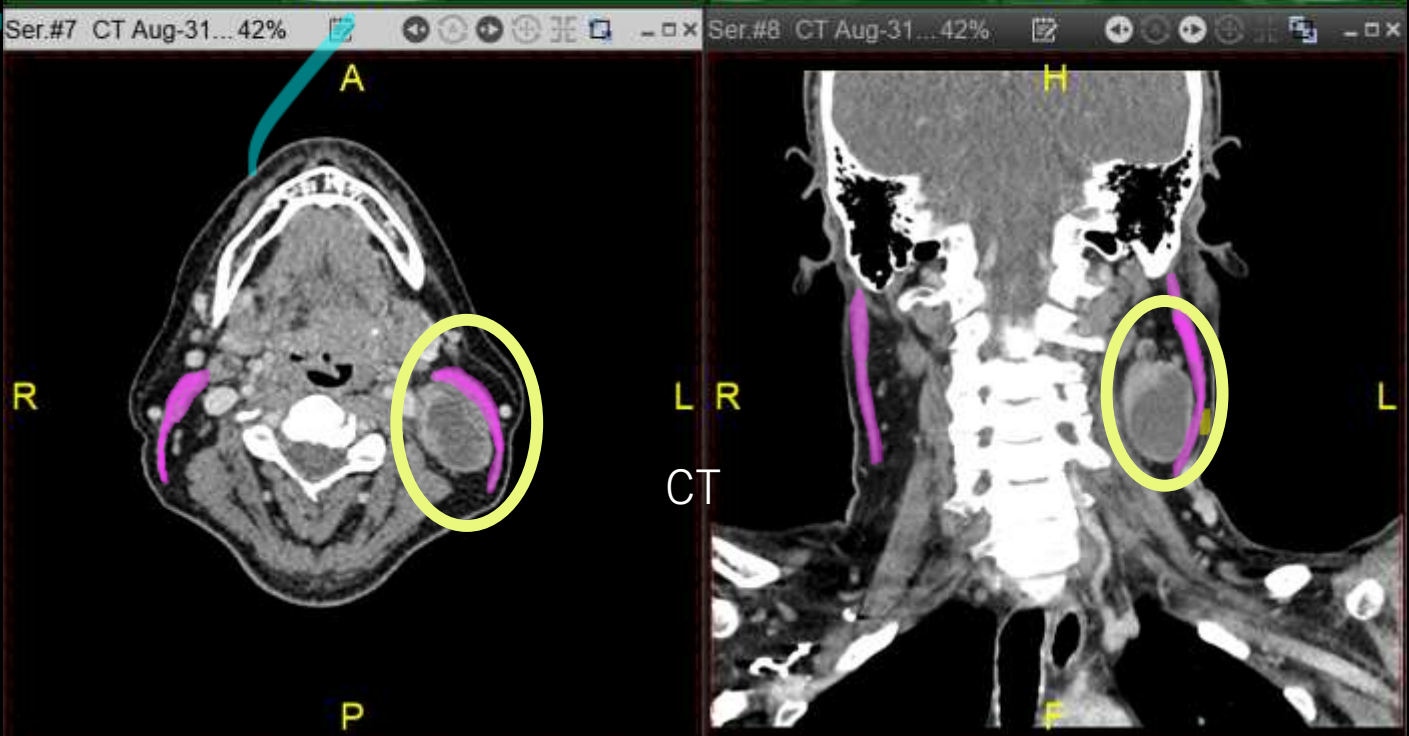
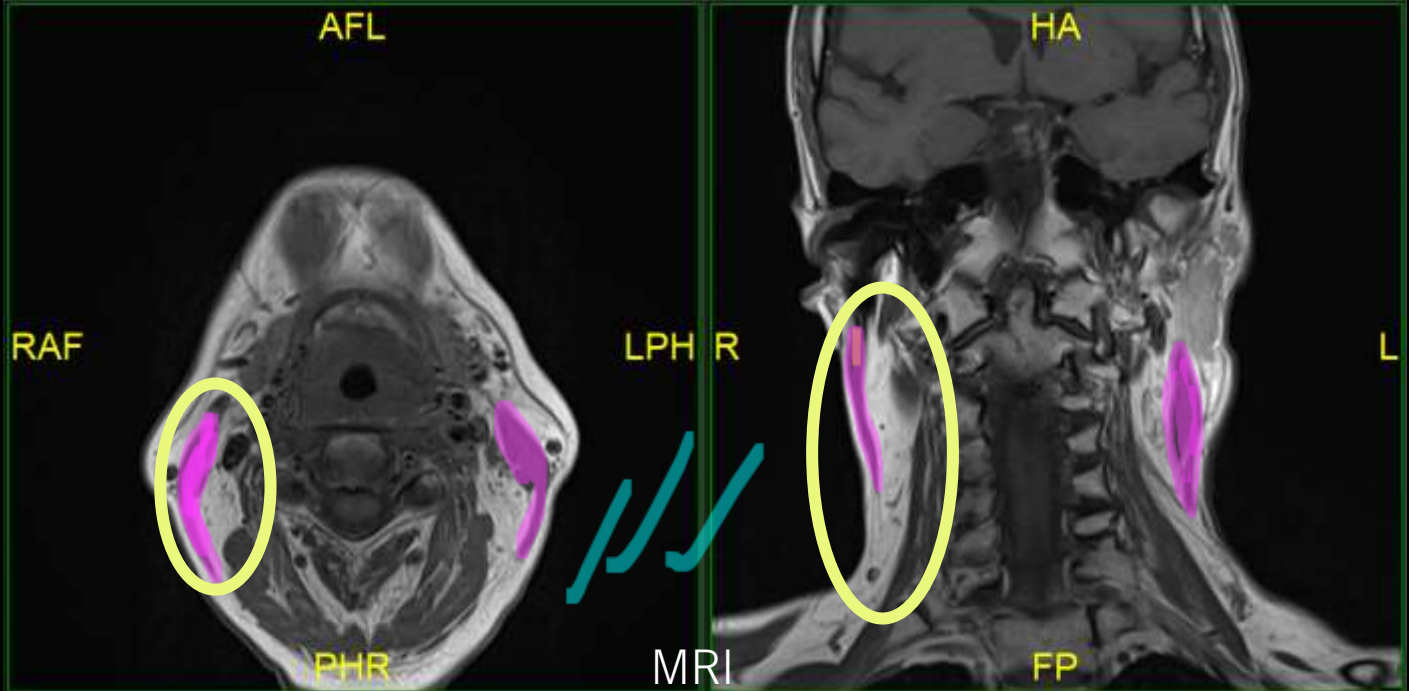
Ser.#8 CT Jul-06-2... 2% Ser.#10 CT Jul-06...43%



Hyoid Bone

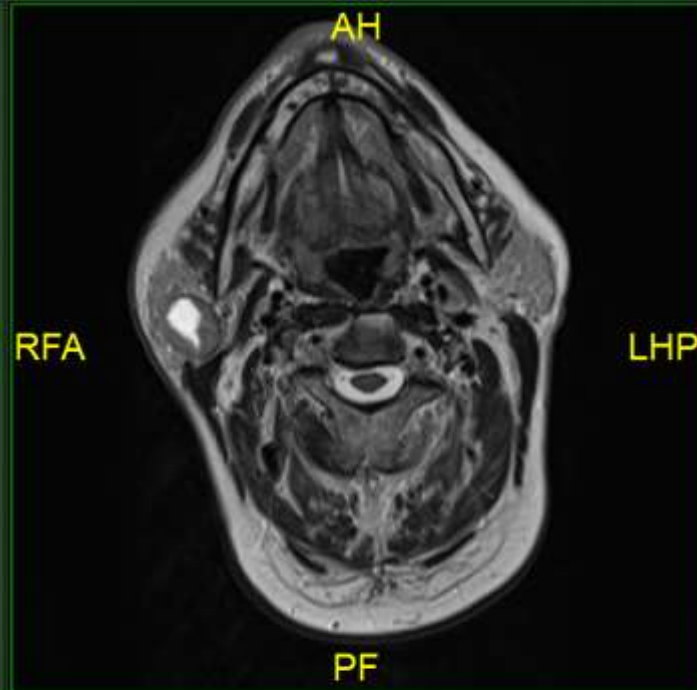
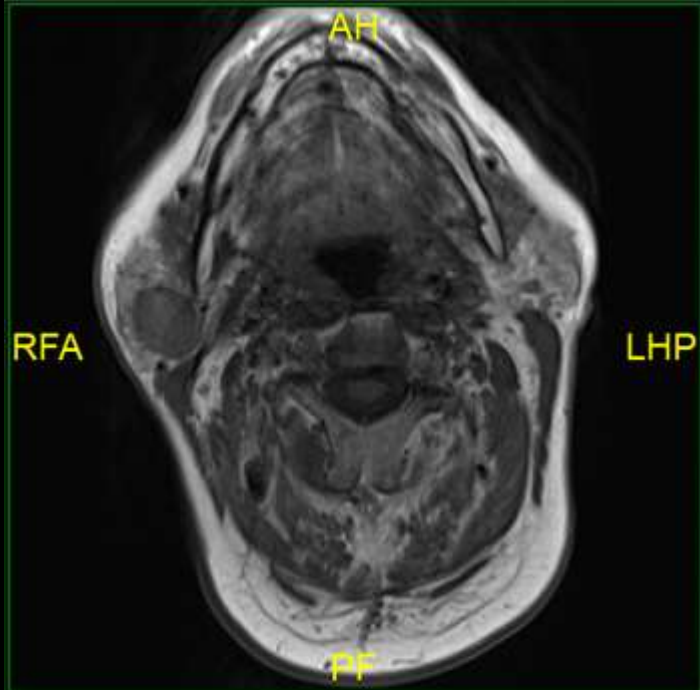


Cricoid Cartilage

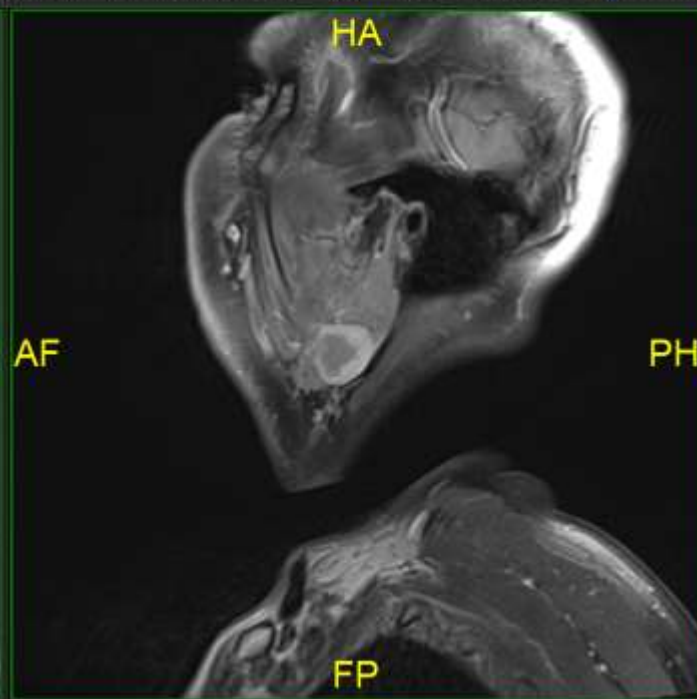
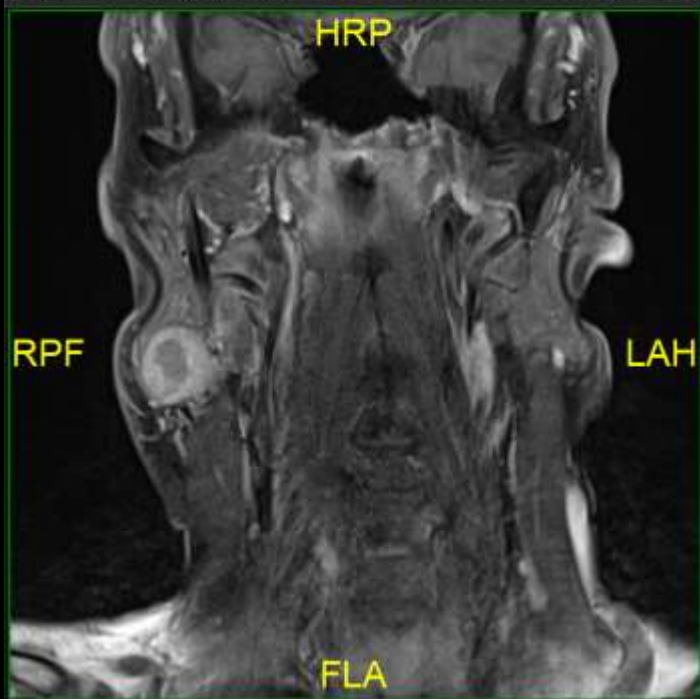


Posterior Cervical Space

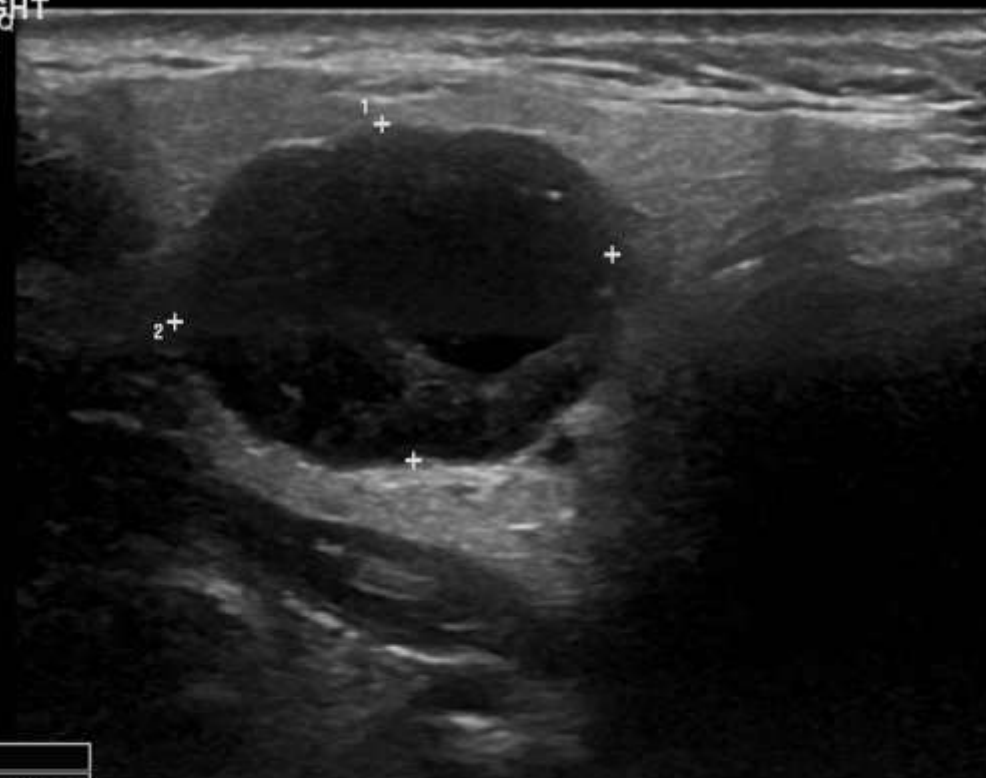
PATHOLOGY



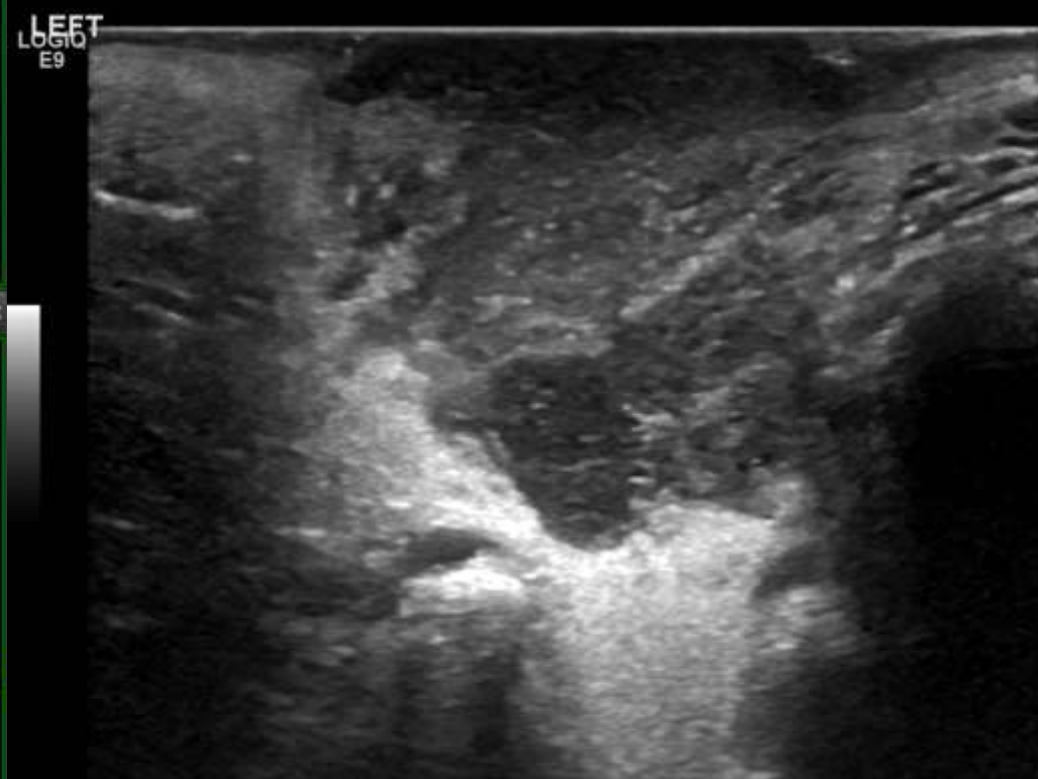
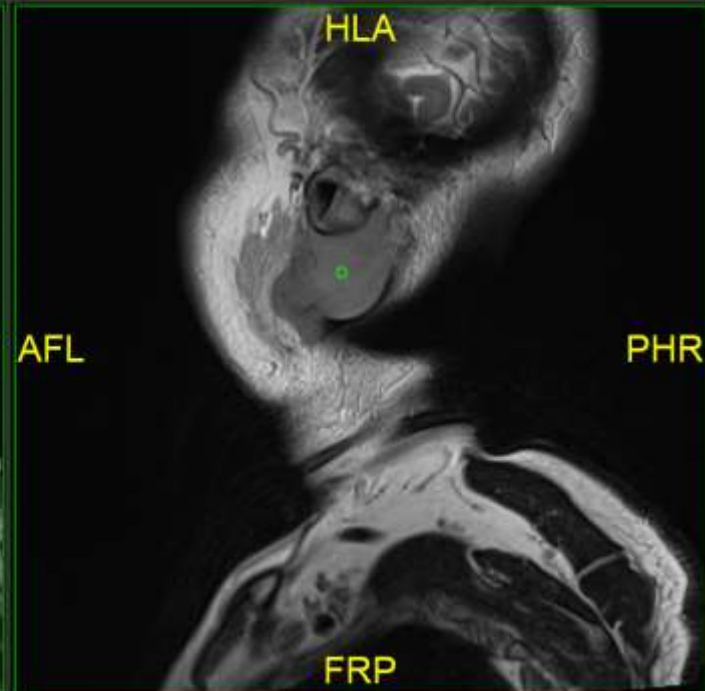
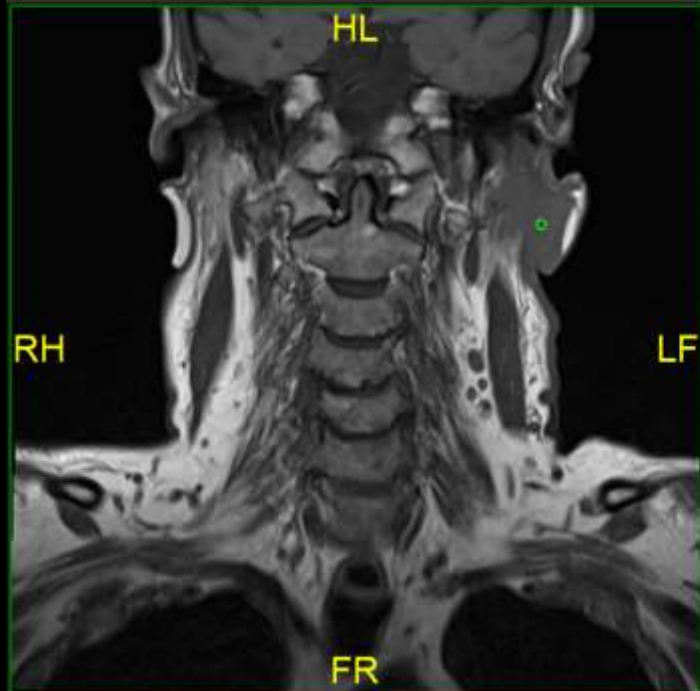
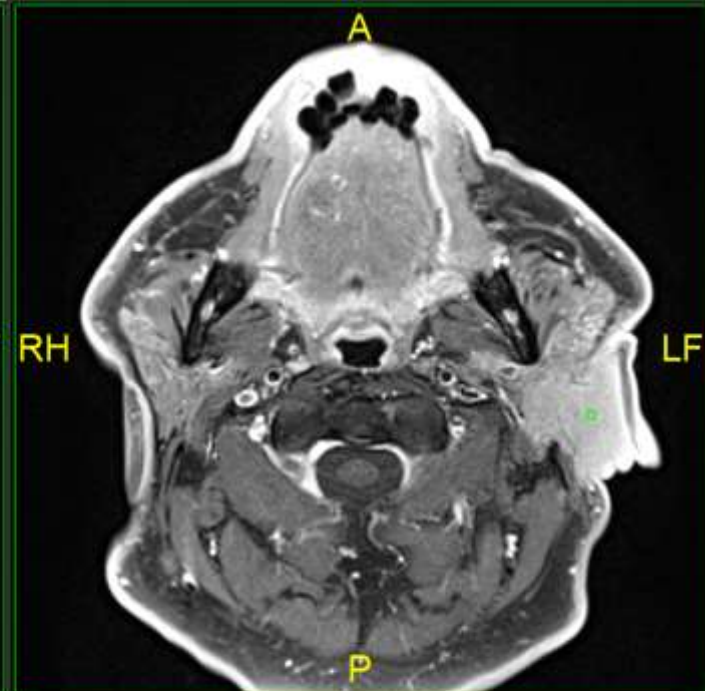
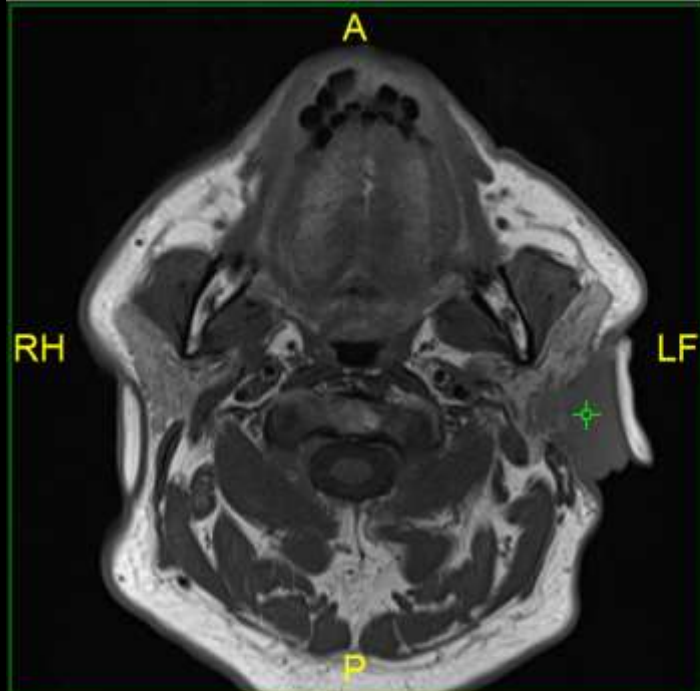
COPY #1: Ser.#10...5% Ser.#11 MR Jun-12...5%



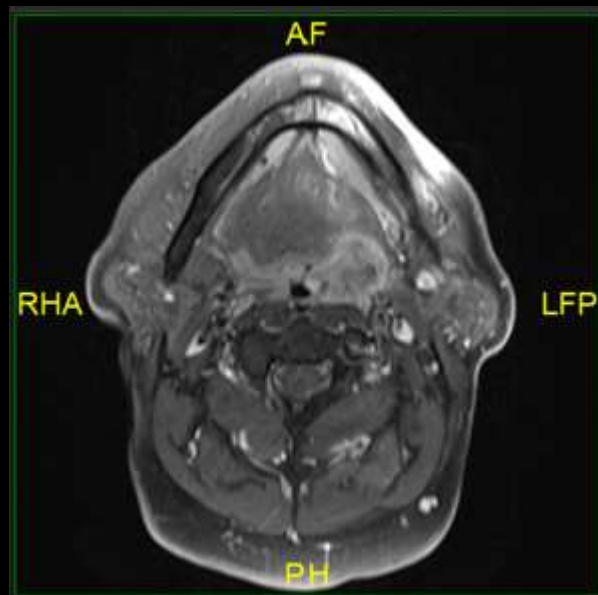
RIGHT
LOGIC
E9



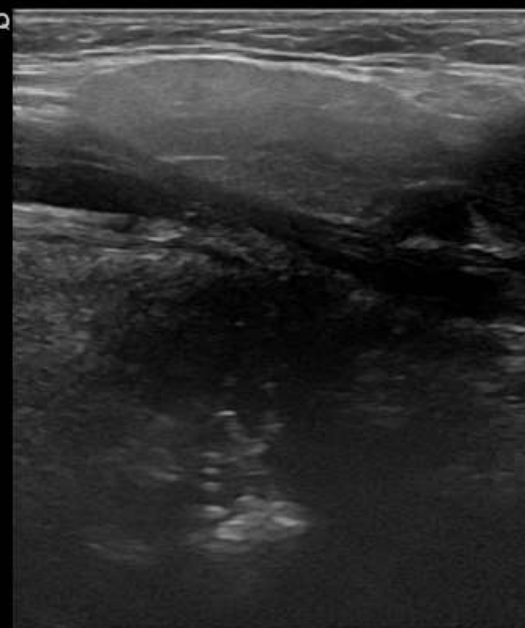
L	1.74 cm
L	2.28 cm



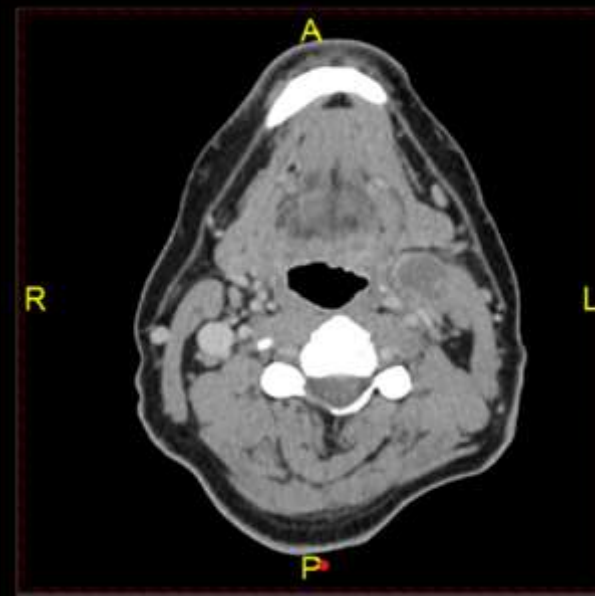
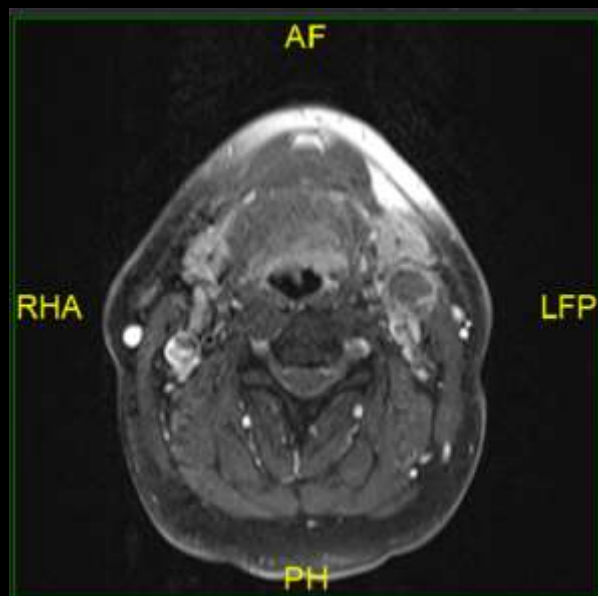
LEFT



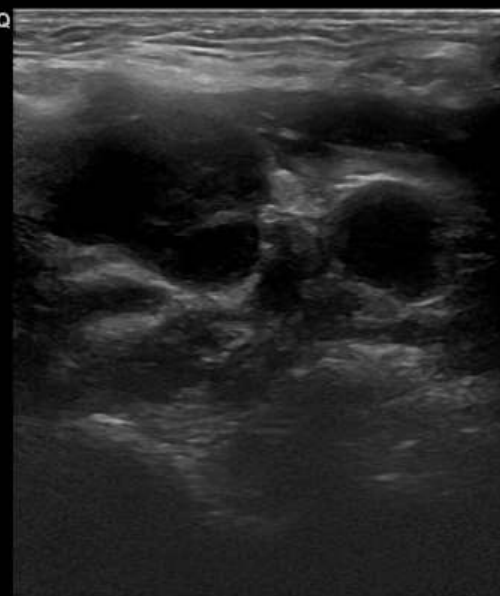
LOGIQ
S8

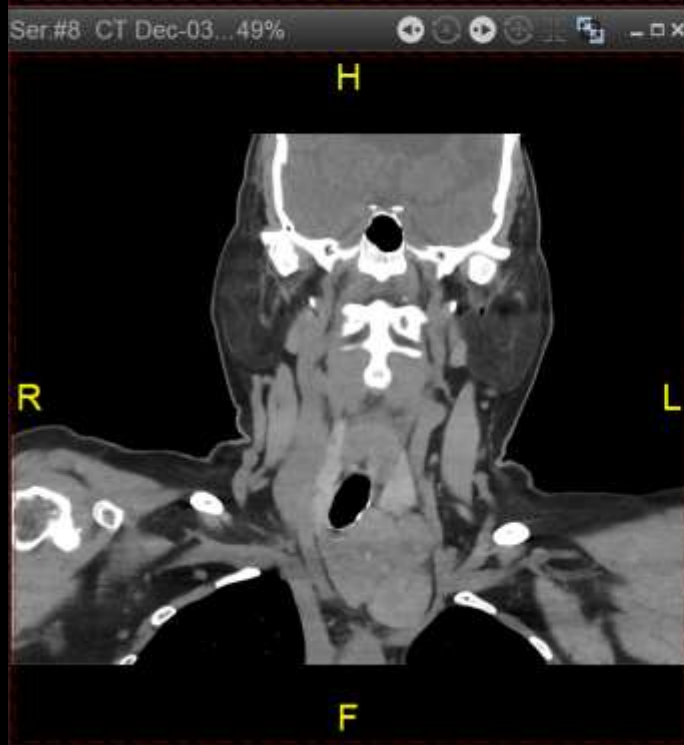
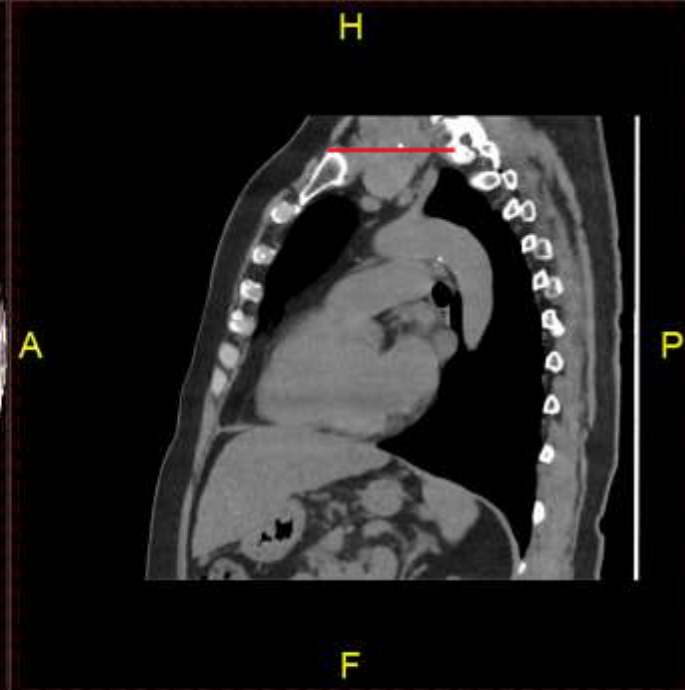
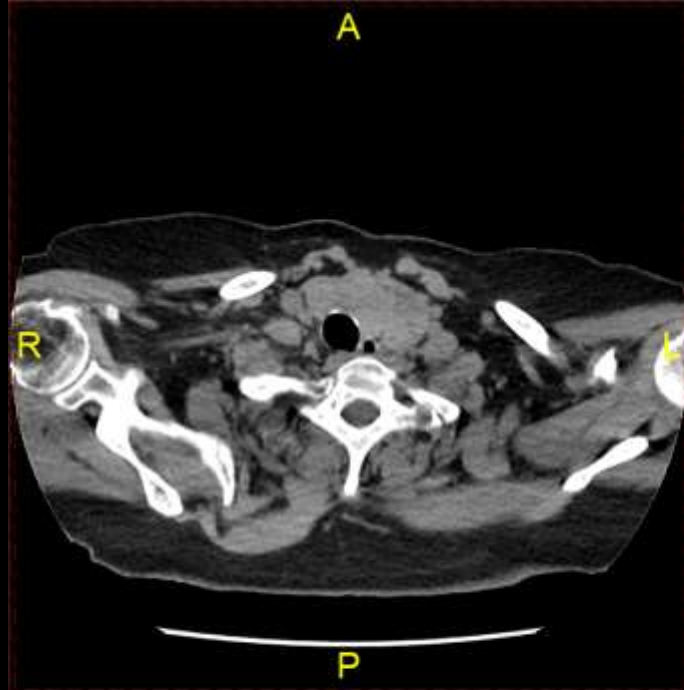


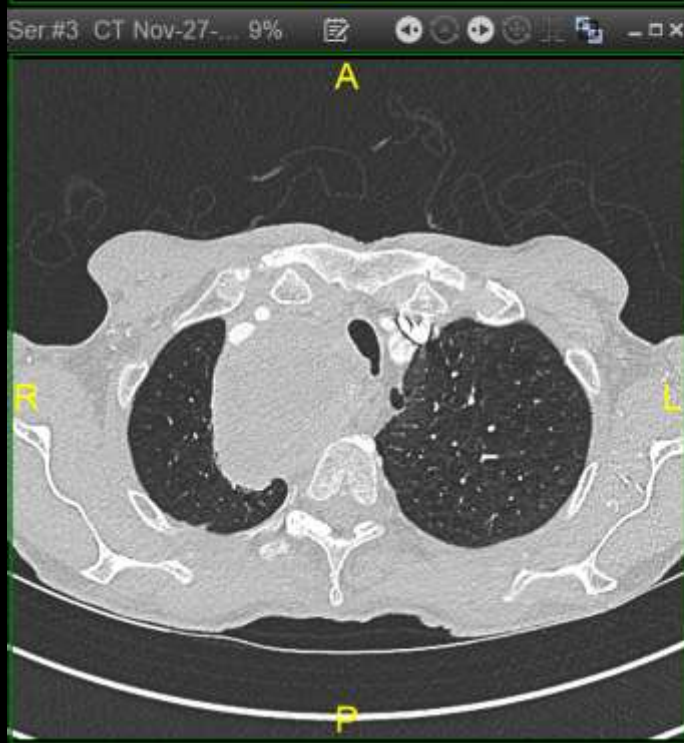
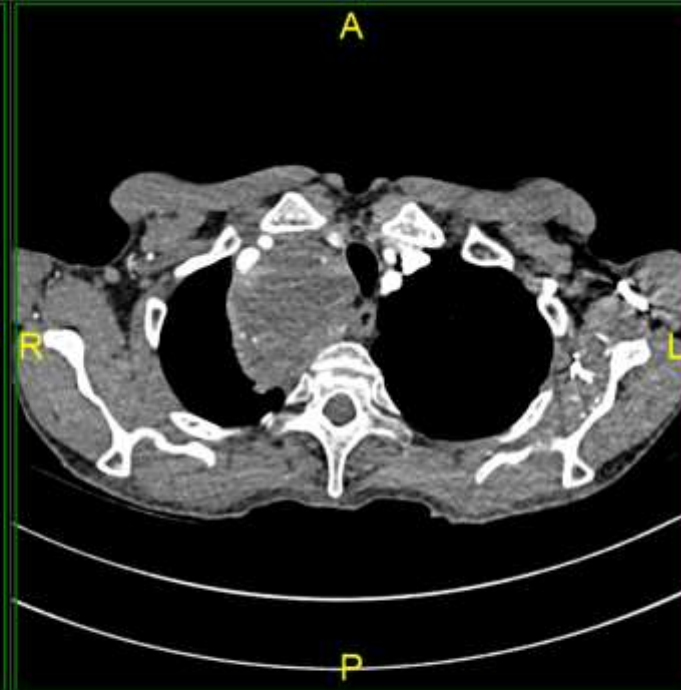
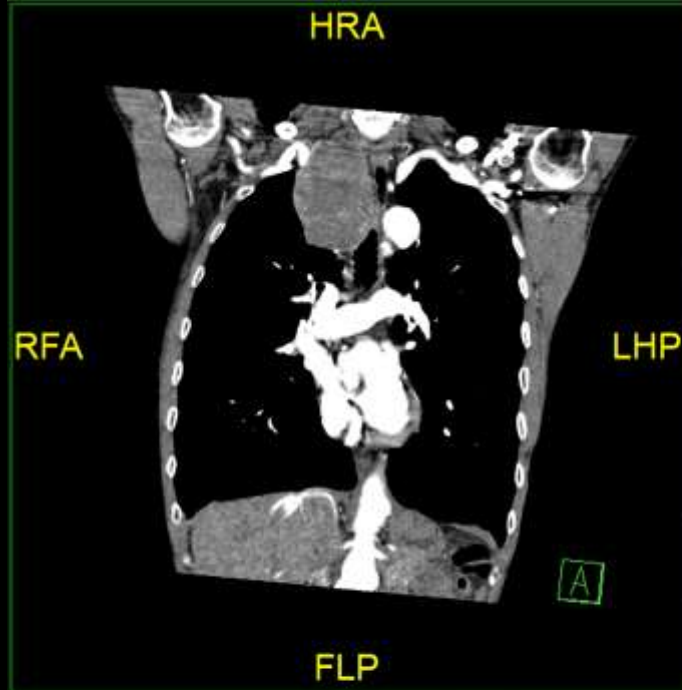
LEFT L2

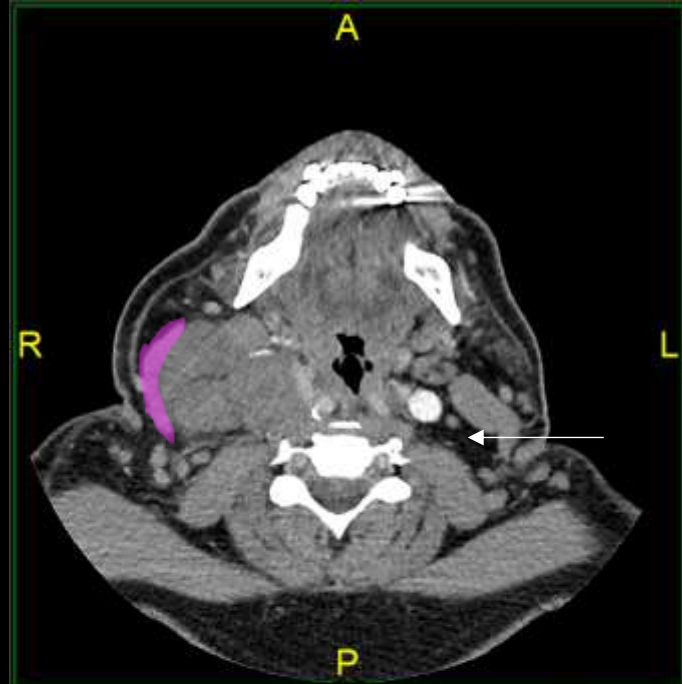


LOGIQ
S8

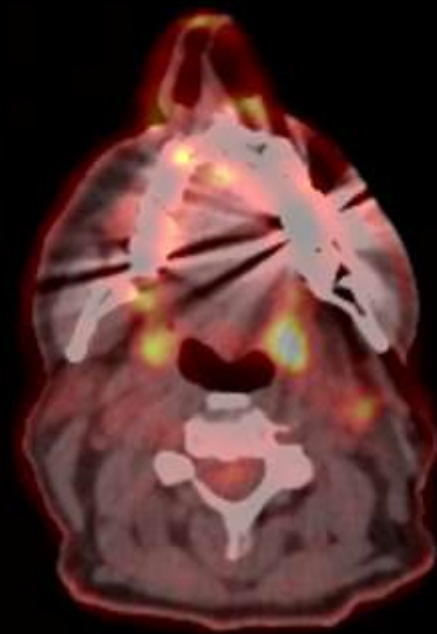
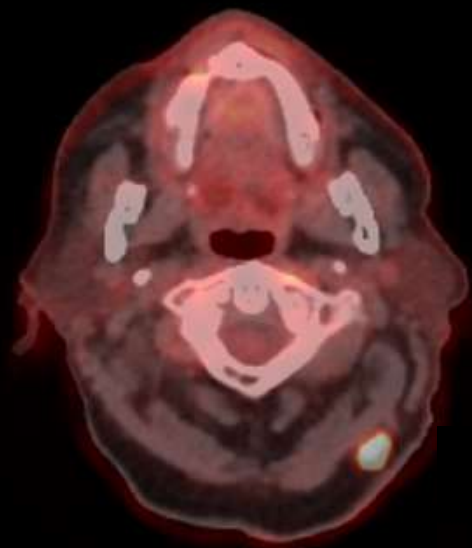
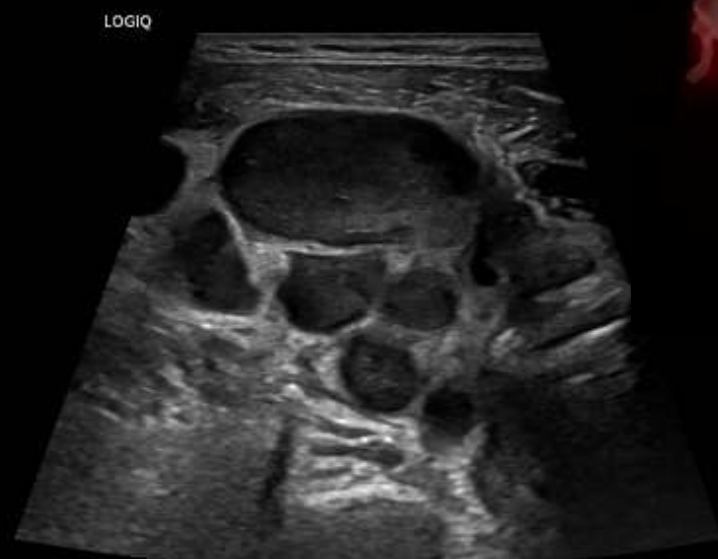
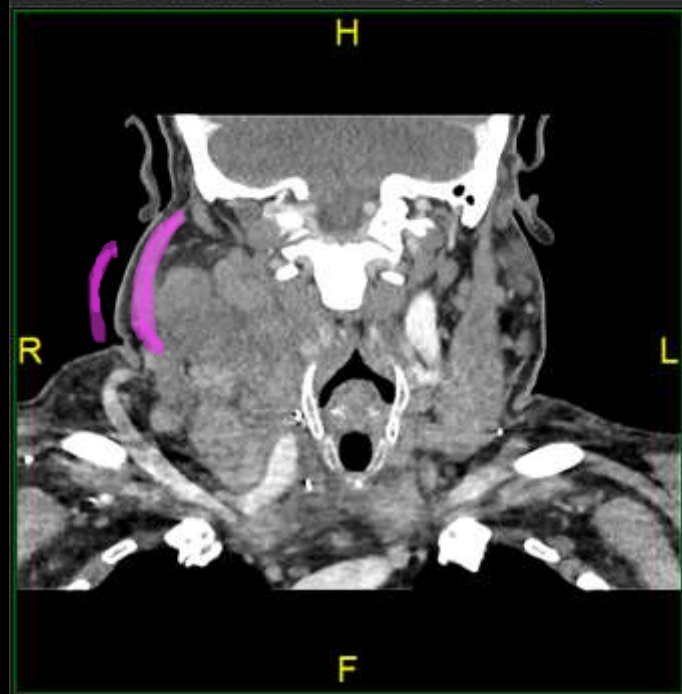








COPY #1: Ser.#5...54%



TOP TIPS

Practice using PACS to view the images

MDT meetings

Observe radiologist reporting session

Review cases / reports

Create a case library

Read

THANK YOU