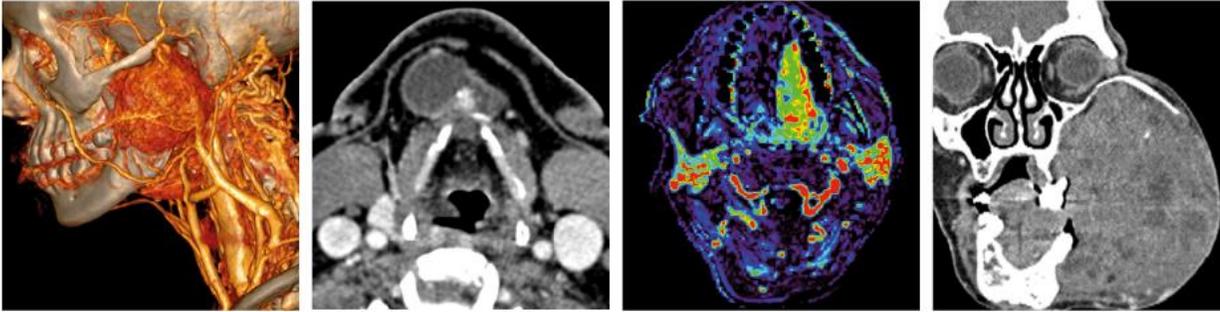


XVIII CURSO NACIONAL DE NEURORRADIOLOGÍA

RADIOLOGÍA DE CABEZA Y CUELLO



31 de marzo - 1 de abril de 2022 | Barcelona

Cadenas ganglionares del cuello: *Clasificación y criterios patológicos*

Santiago Medrano Martorell

Hospital Clínic de Barcelona



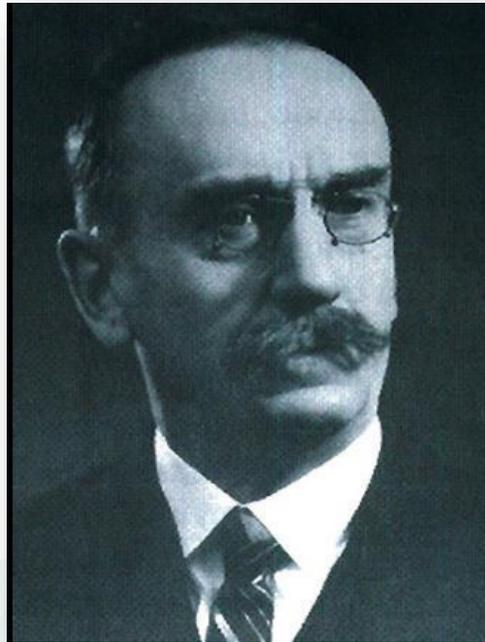
Contenidos

- 1. Anatomía.** Niveles ganglionares: referencias anatómicas y vías de diseminación
- 2. Semiología radiológica**
 - Tamaño, morfología, contornos, contenido, calcificaciones, agrupación/distribución,
 - Algoritmo diagnóstico diferencial
- 3. Conclusiones**



1. Anatomía

Anatomie des lymphatiques de l'homme. Par H. Rouvière, professeur d'anatomie à la Faculté de médecine de Paris. Cloth. Price, 150 francs. Pp. 489, with 129 illustrations. Paris: Masson & Cie, 1932.



Rouvière (1932)

cadena + grupos

≈300 ganglios

(40% de todo el cuerpo)

Neck swellings. *BMJ* 348, g1078.2014

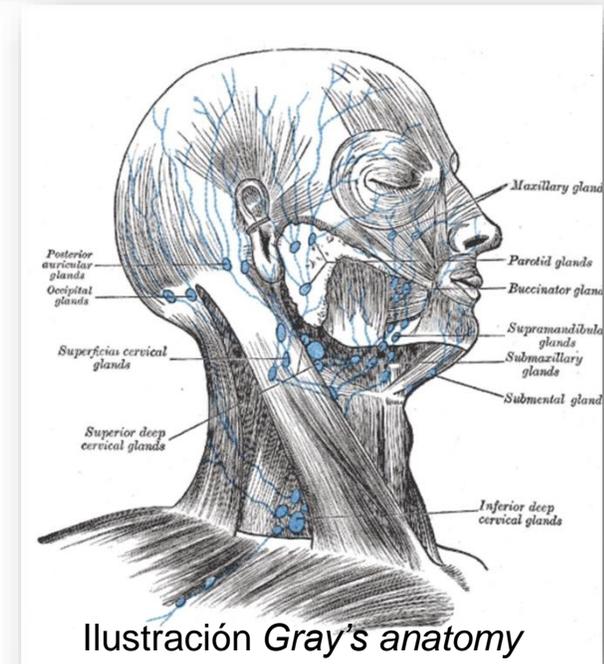
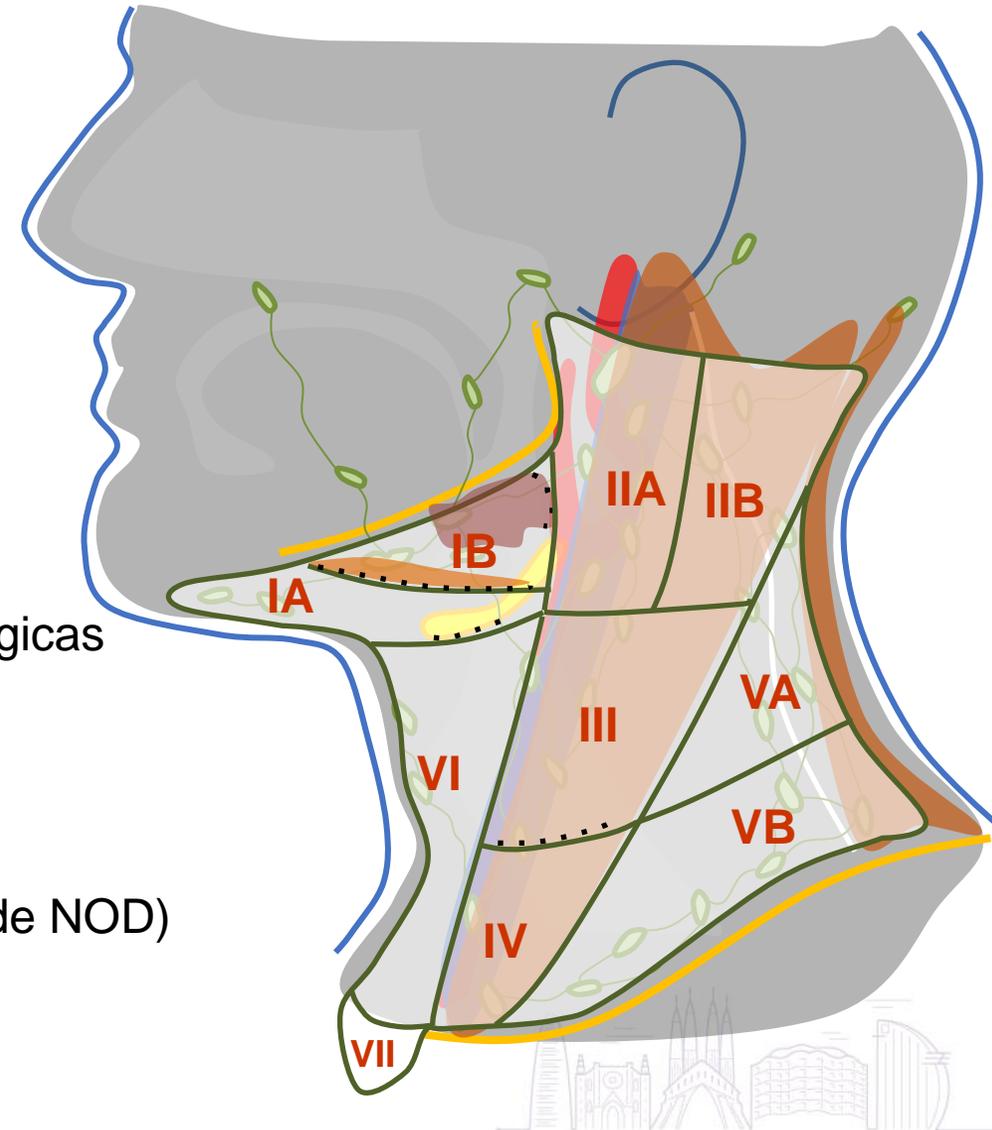


Ilustración Gray's anatomy

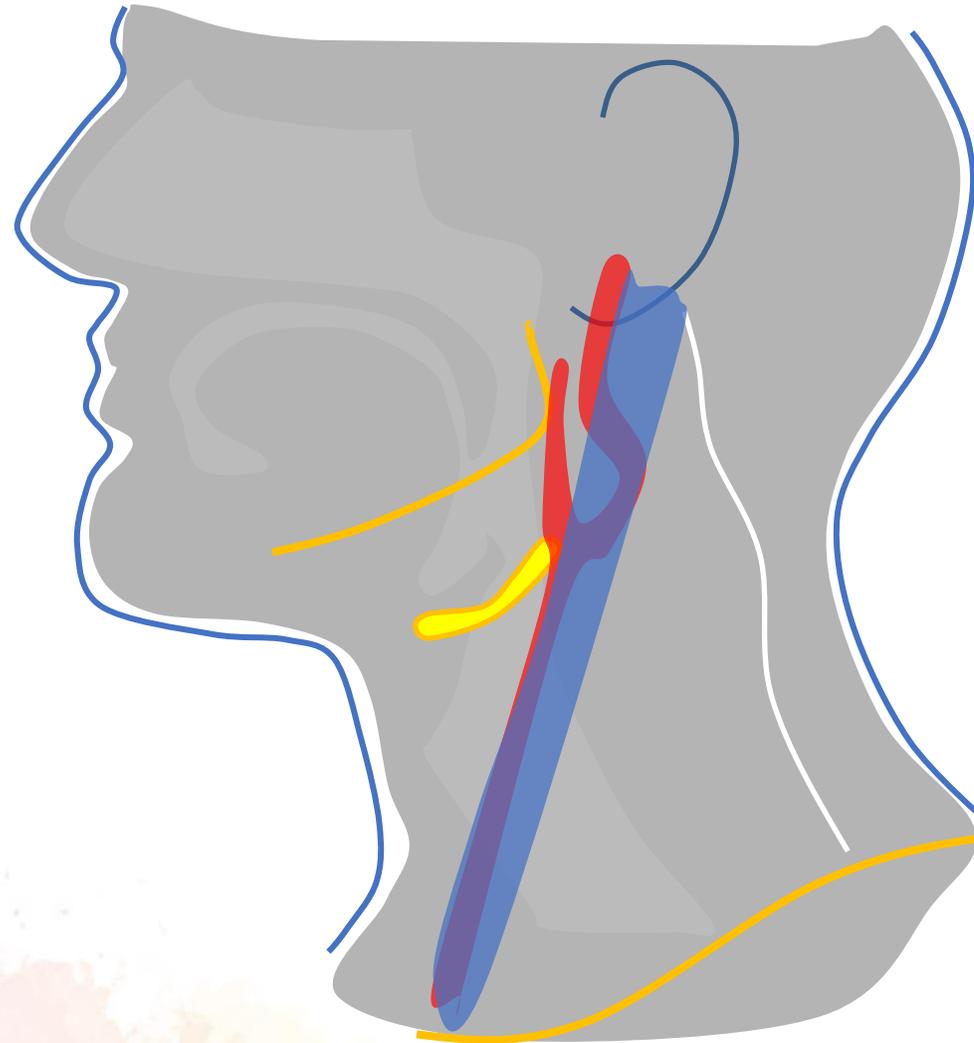


1. Anatomía: Niveles ganglionares

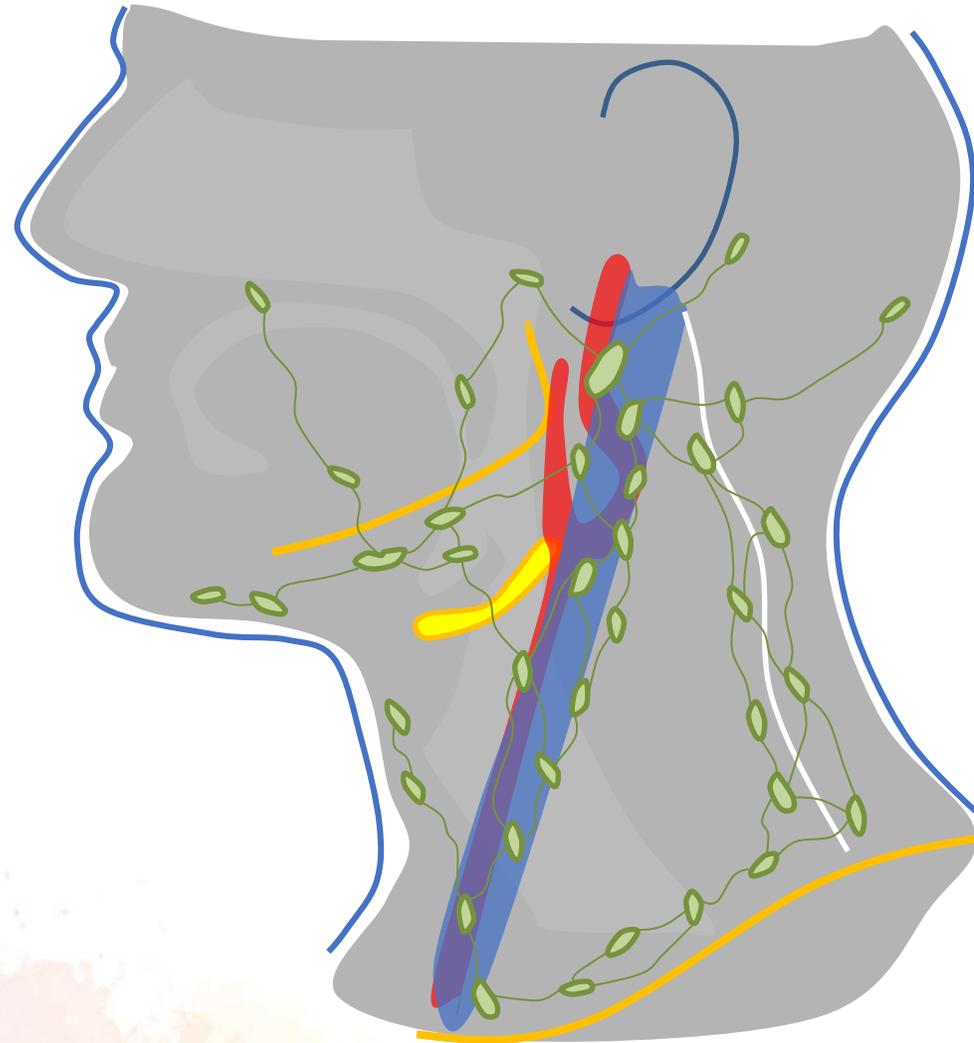
- Planificación estrategia quirúrgica / RT
- **ASHNS / AAO-HNS (I-VI)** Robbins KT et al. 1998
(update 2002): *Arch Otolaryngol Head Neck Surg.* 2002;128(7):751–758
- **American Joint Committee on Cancer (AJCC) (+ VII)**
- **Clasificación radiológica** (mismos niveles I-VII)
Referencias anatómicas radiológicas equivalentes a las quirúrgicas
Som PM. et al 1999; *Arch Otolaryngol Head Neck Surg.* 1999;125(4):388–396
- Cada nivel se corresponde con vía de drenaje de T:
Guía inspección radiológica de T → N* o de N → T (contexto de NOD)



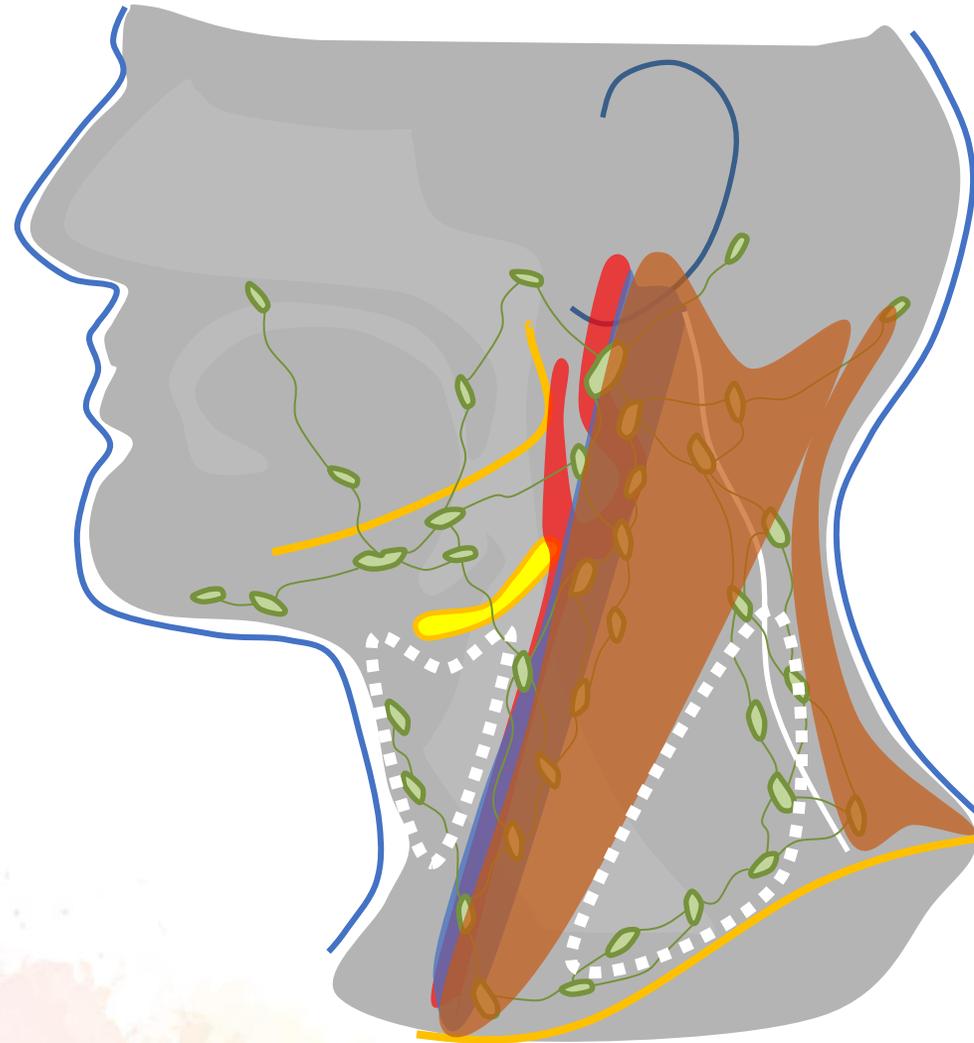
1. Anatomía: Niveles ganglionares



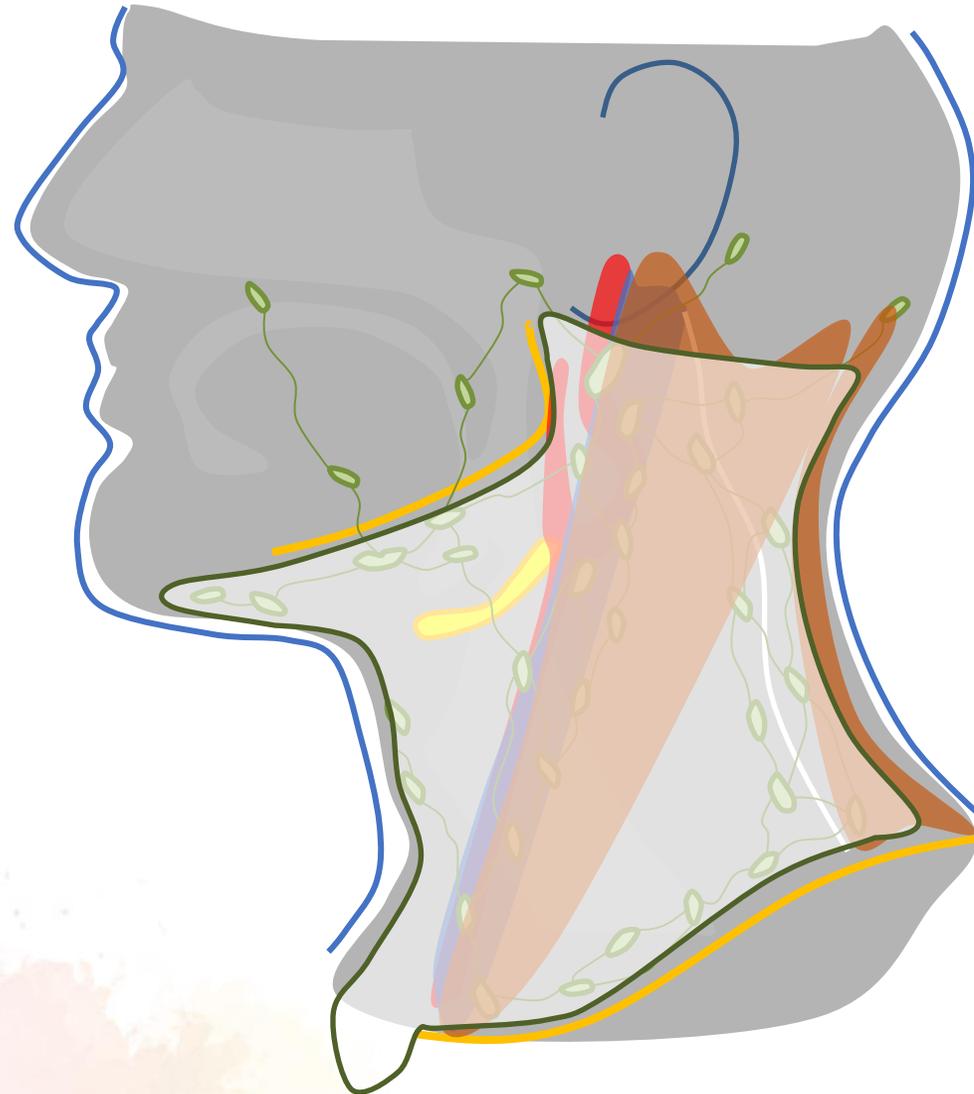
1. Anatomía: Niveles ganglionares



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1. Anatomía: Niveles ganglionares



1. Anatomía: Niveles ganglionares

IA (submentoniano)

IB (submaxilar)

IIA (yugular alto anterior)

IIB (yugular alto post)

III (yugular medio)

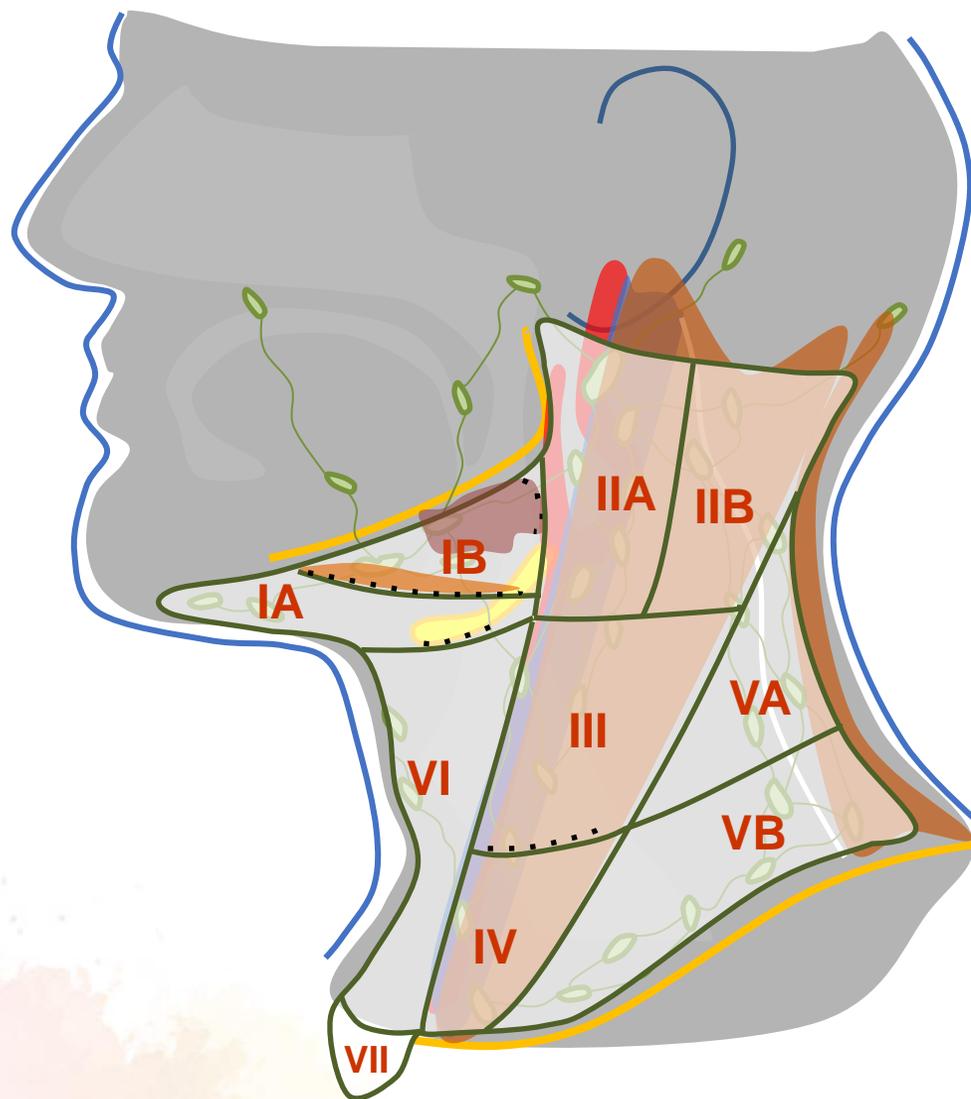
IV (yugular bajo)

VA (triangulo cervical post alto)

VB (triangulo cervical post bajo)

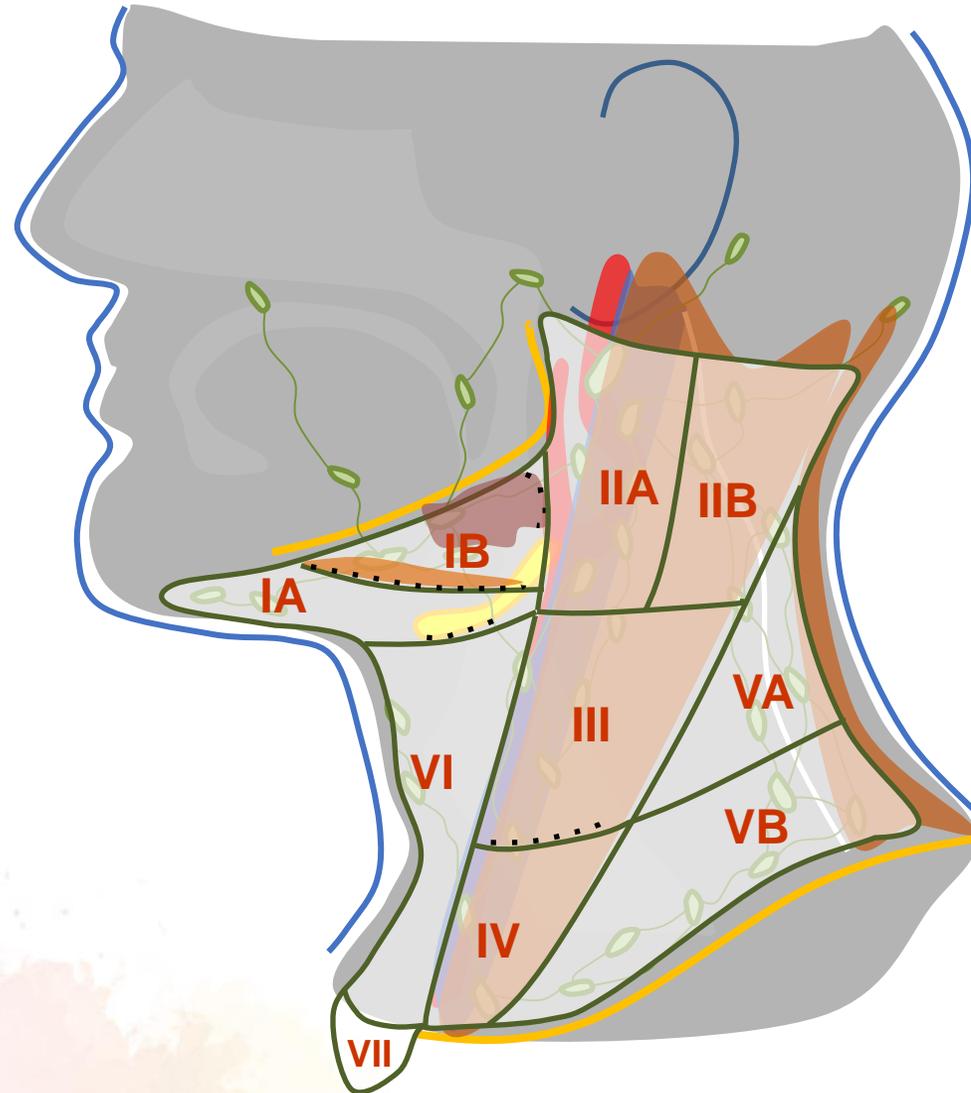
VI (compartimento ant/visceral)

VII (mediastino sup)



1. Anatomía: Niveles ganglionares

- IA (submentoniano)
- IB (submaxilar)
- IIA (yugular alto anterior)
- IIB (yugular alto post)
- III (yugular medio)
- IV (yugular bajo)
- VA (triangulo cervical post alto)
- VB (triangulo cervical post bajo)
- VI (compartimento ant/visceral)
- VII (mediastino sup)



RADIÓLOGO, NO OLVIDES revisar ganglios fuera de niveles!

Grupos nominales:

- Yugulodigástricos (IIA)
- Delfianos (VI)
- **Supraclaviculares** (*IV, V)
- **Retrofaríngeos**
- **Parotídeos**

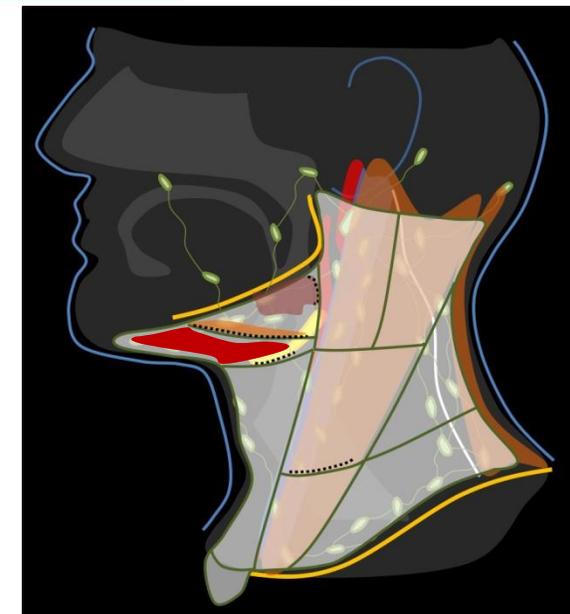
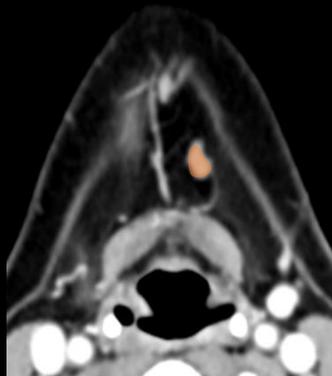
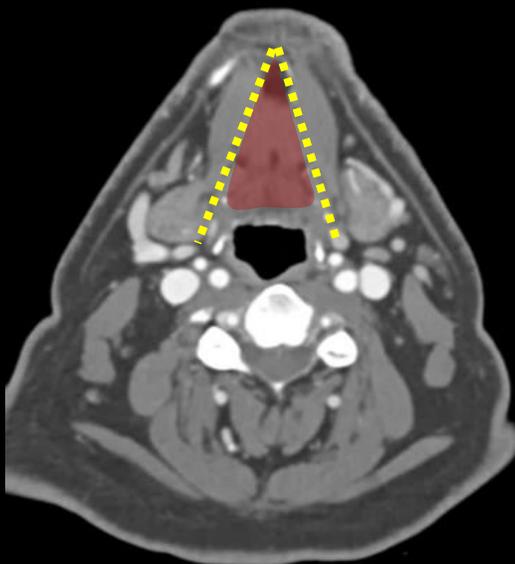
- Grupos superficiales: occipitales, pre y post-auriculares (mastoideos), faciales, mandibulares...



1. Anatomía: Niveles ganglionares

submentoniano

IA



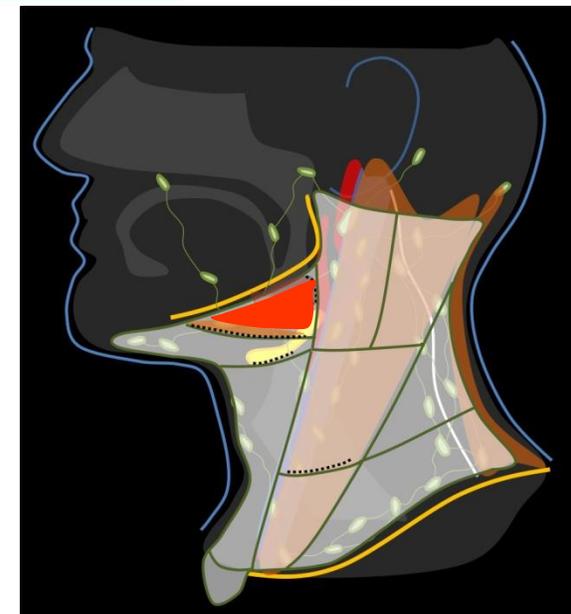
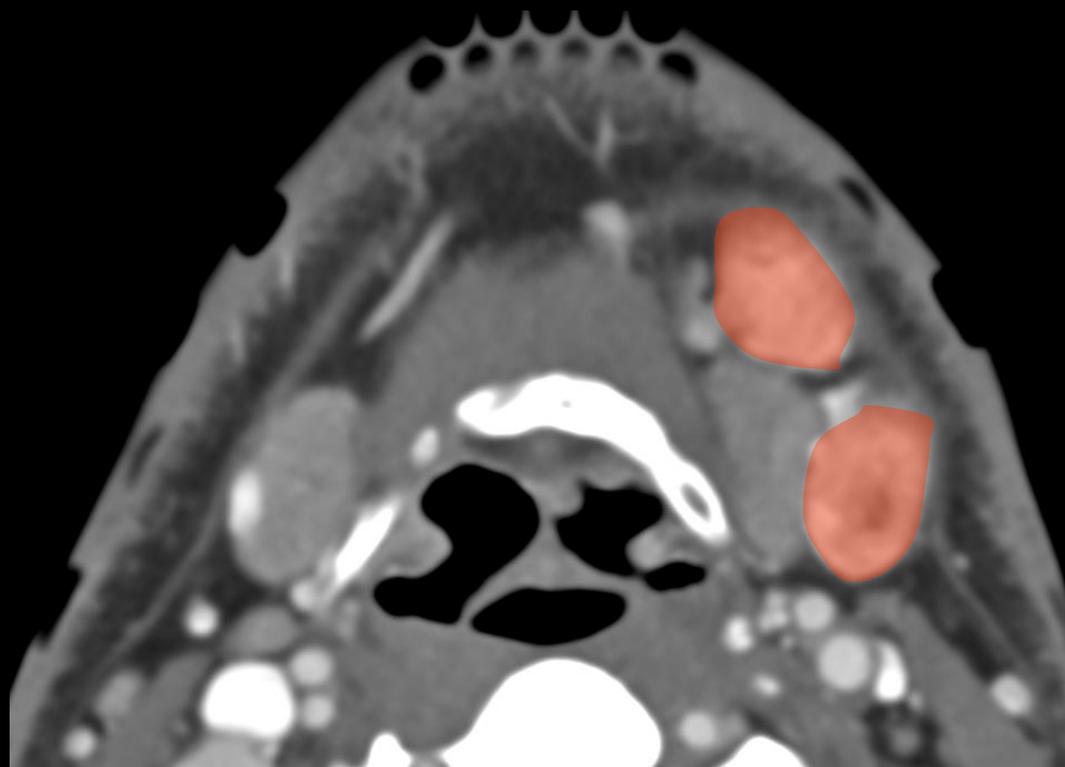
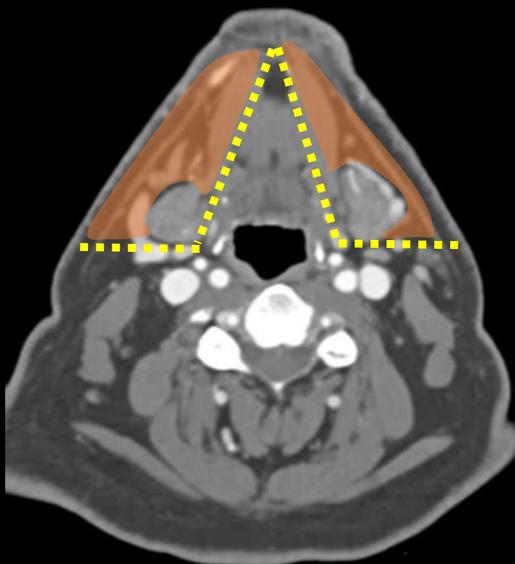
Suelo de la boca
Lengua oral anterior
Mandíbula anterior
Labio inferior



1. Anatomía: Niveles ganglionares

submaxilar

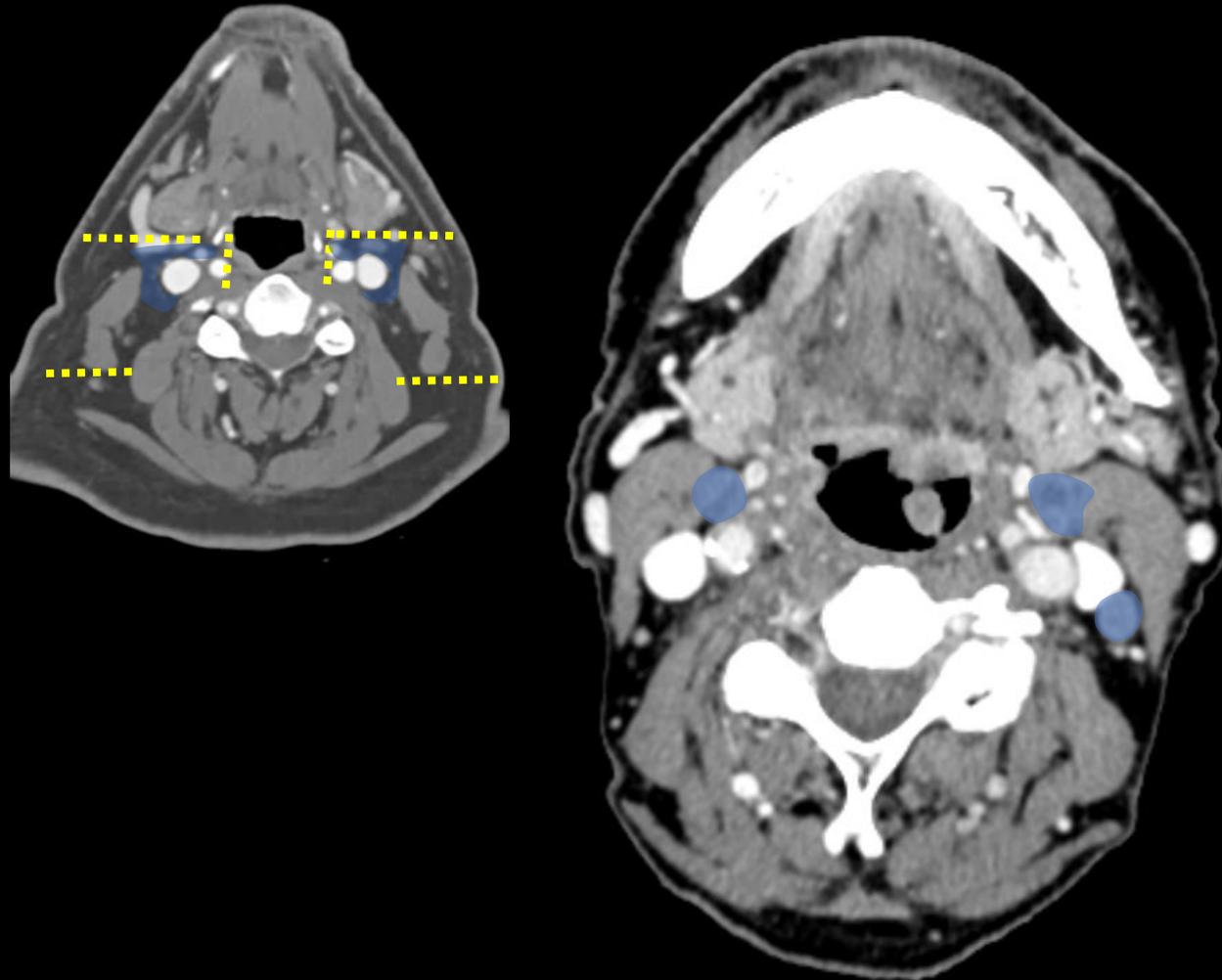
IB



Cavidad oral
Cavidad nasal anterior
Cara
Glándula submandibular



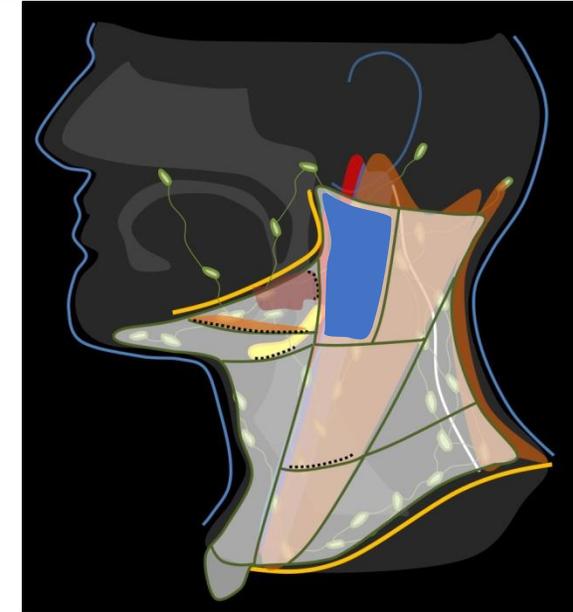
1. Anatomía: Niveles ganglionares



yugular alto anterior

IIIA

Nivel + común



Nivel IB

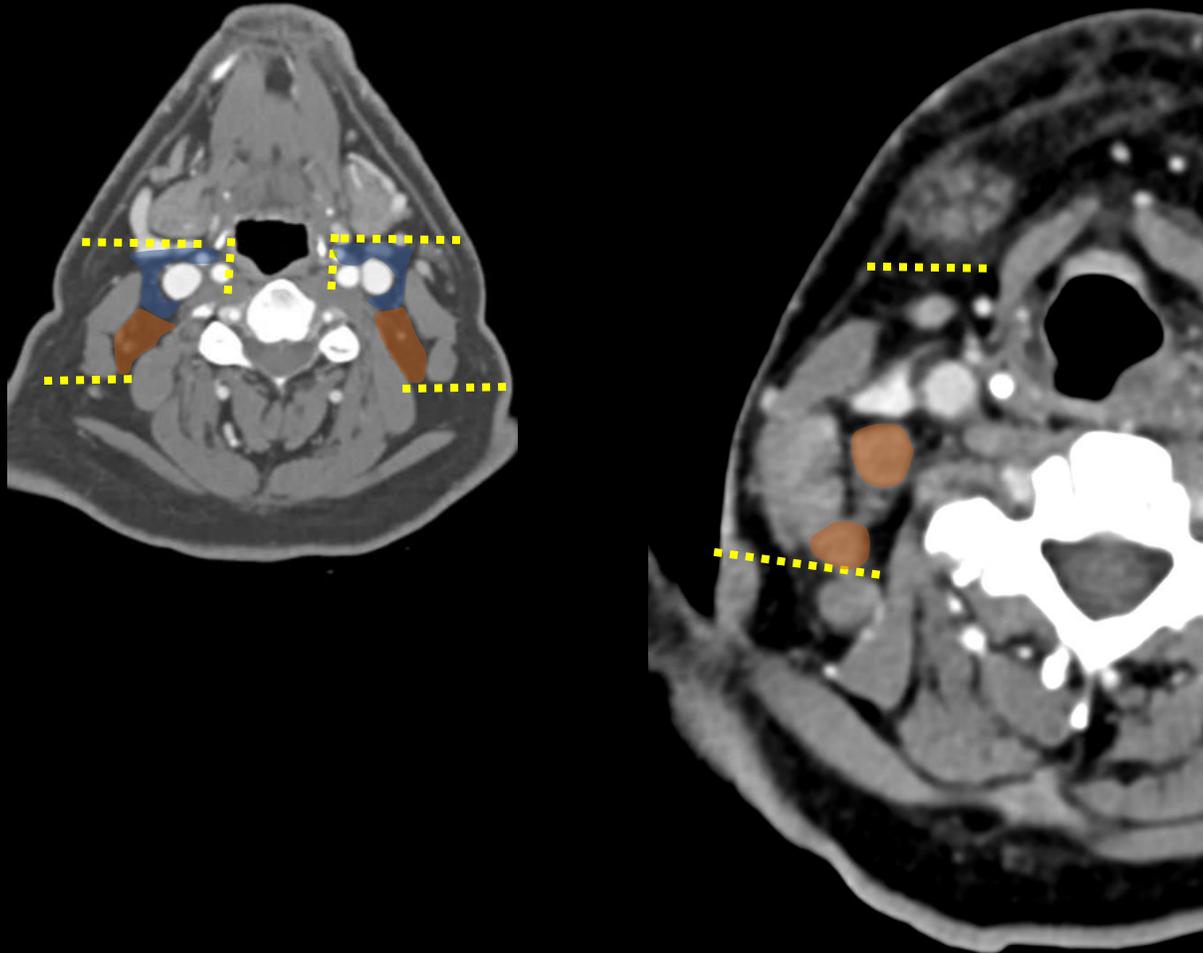
Orofaringe

Nasofaringe

Glándula parótida

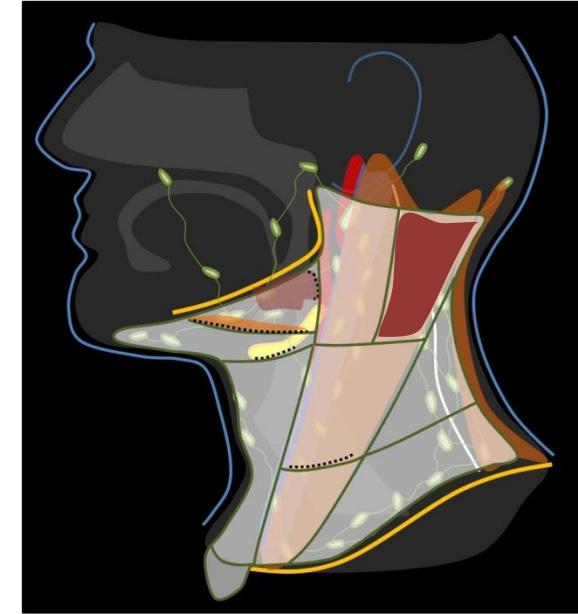


1. Anatomía: Niveles ganglionares



yugular alto posterior

IIB

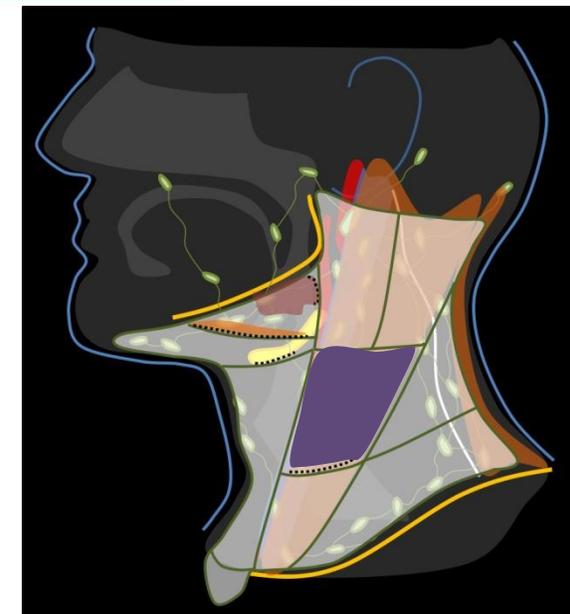
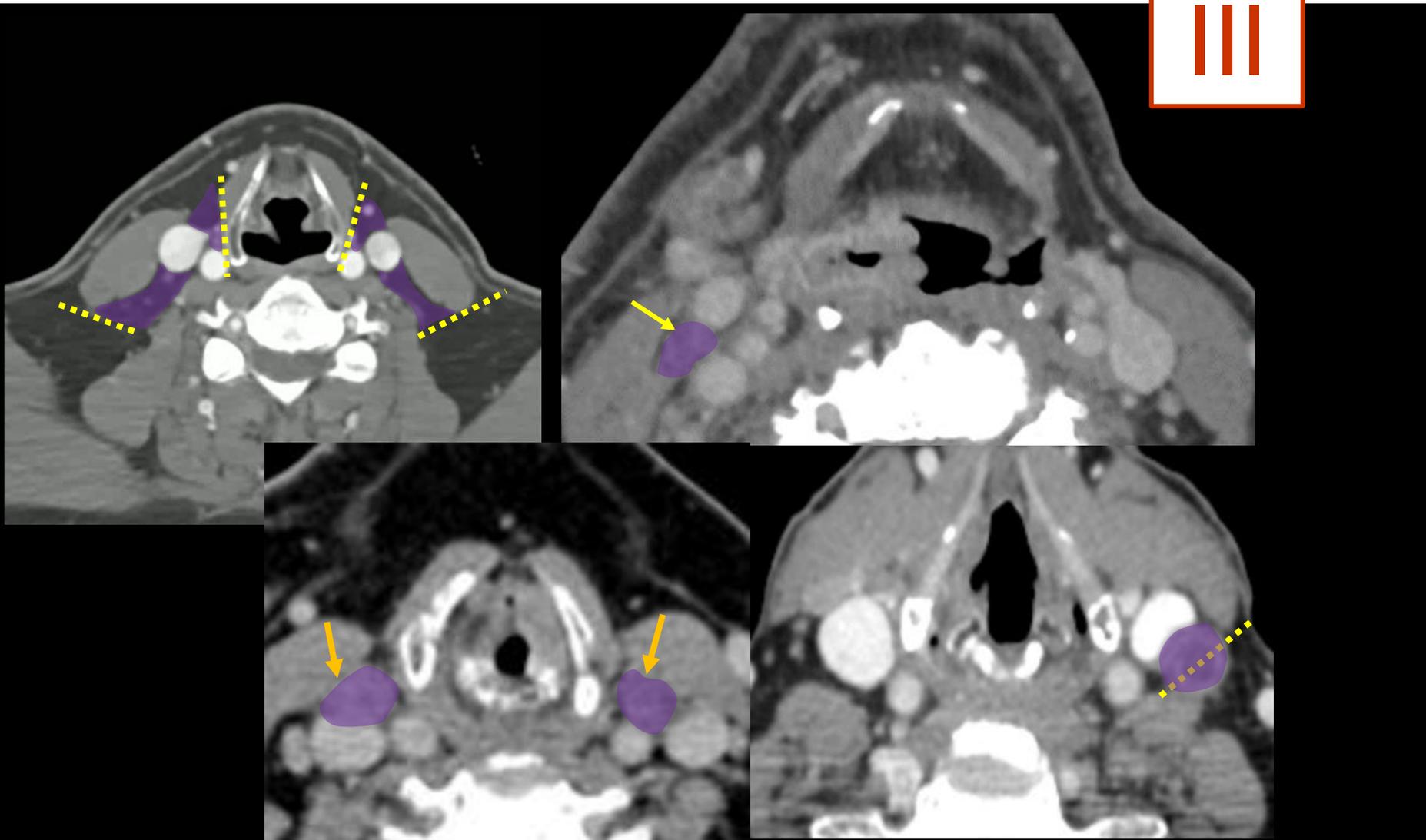


IIA
Cuero cabelludo



1. Anatomía: Niveles ganglionares

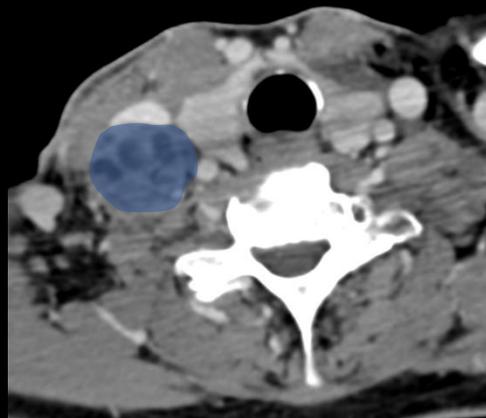
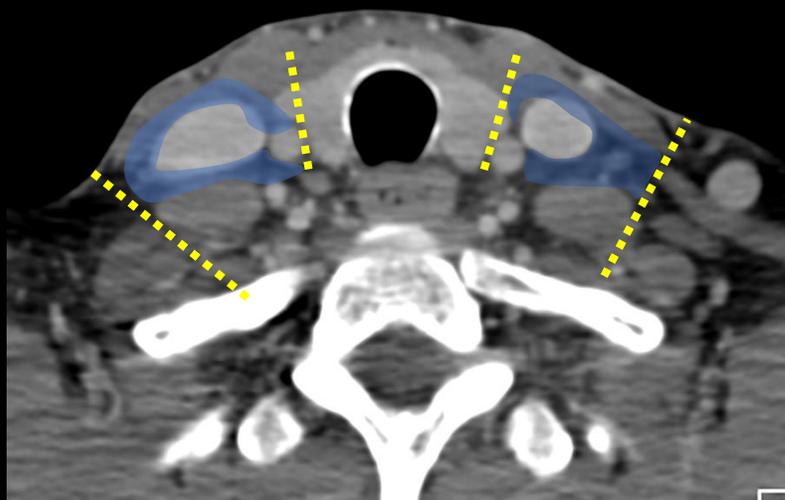
yugular medio



Nivel II
Hipofaringe (seno piriforme)
Nasofaringe
Laringe

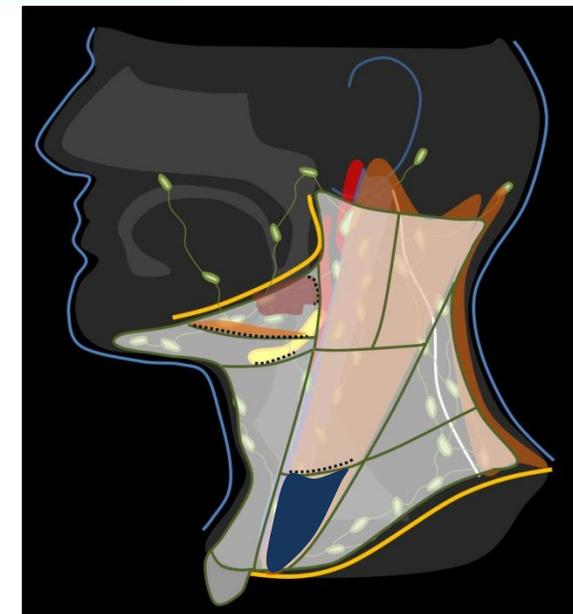


1. Anatomía: Niveles ganglionares

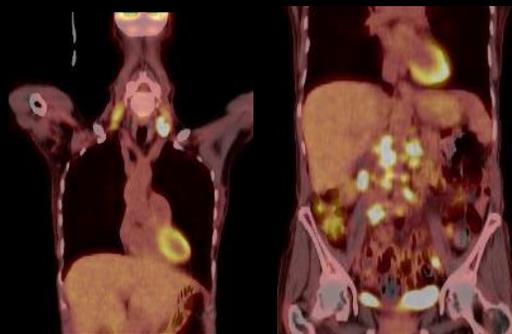
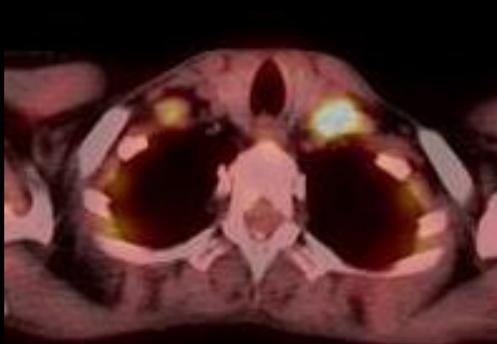


yugular bajo

IV



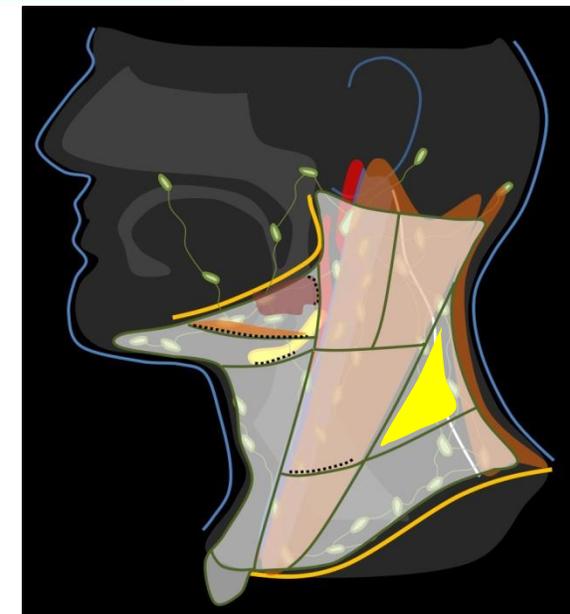
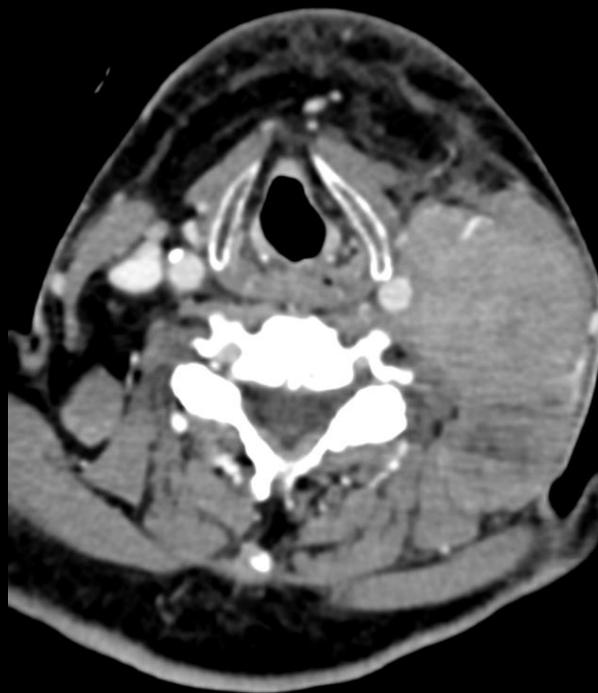
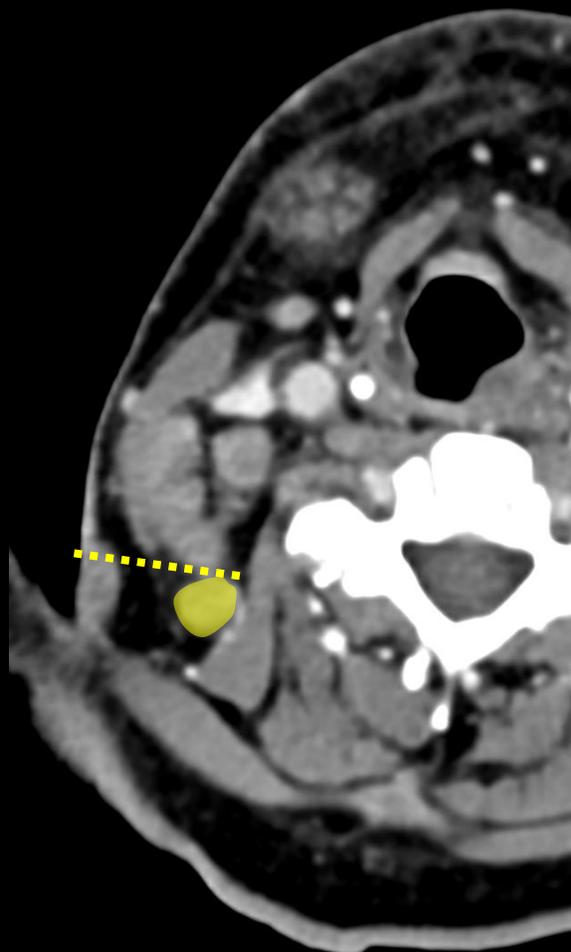
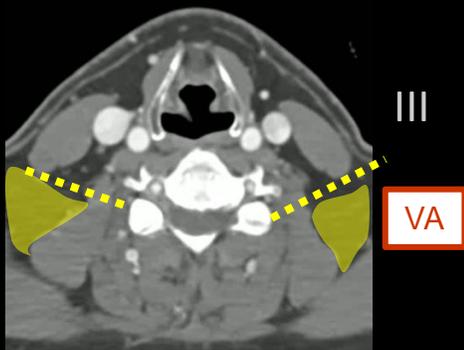
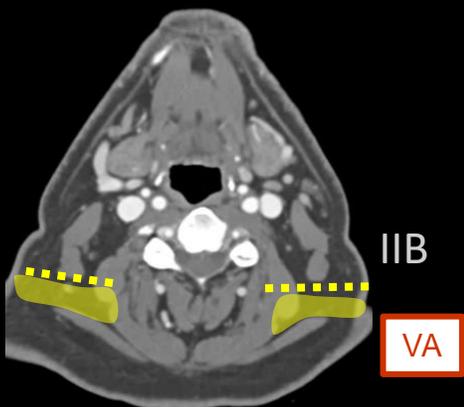
Nivel III
Hipofaringe
Laringe
Tiroides
Esófago cervical
Tórax, abdomen (*Virchow*)



1. Anatomía: Niveles ganglionares

triángulo cerv. post. alto

VA



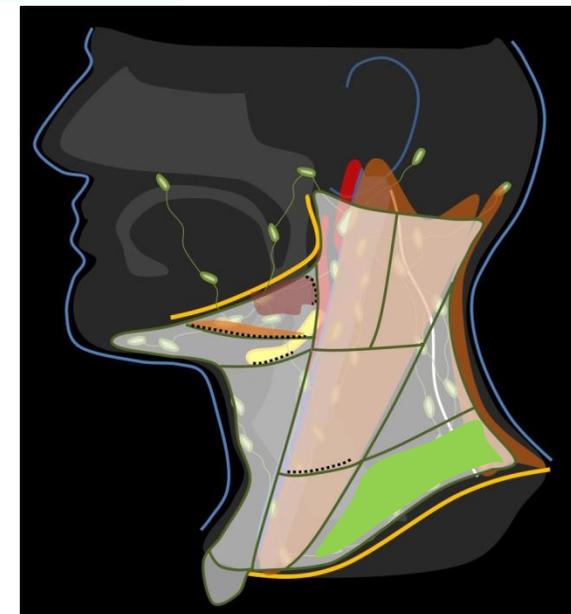
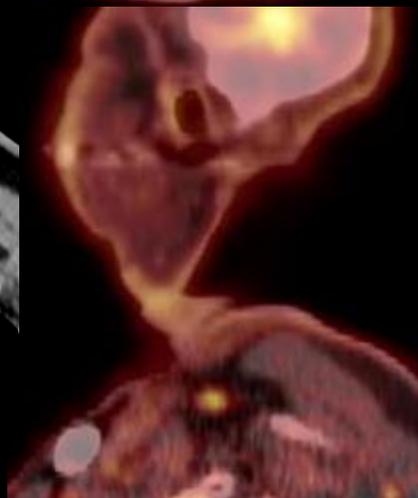
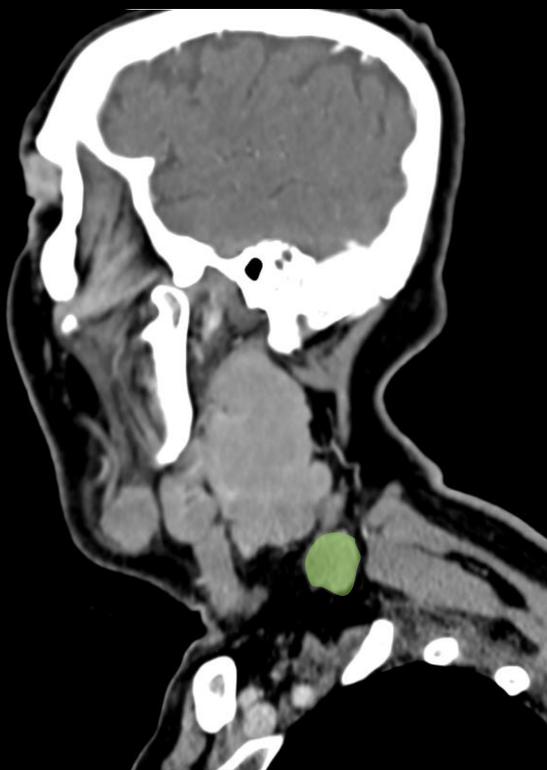
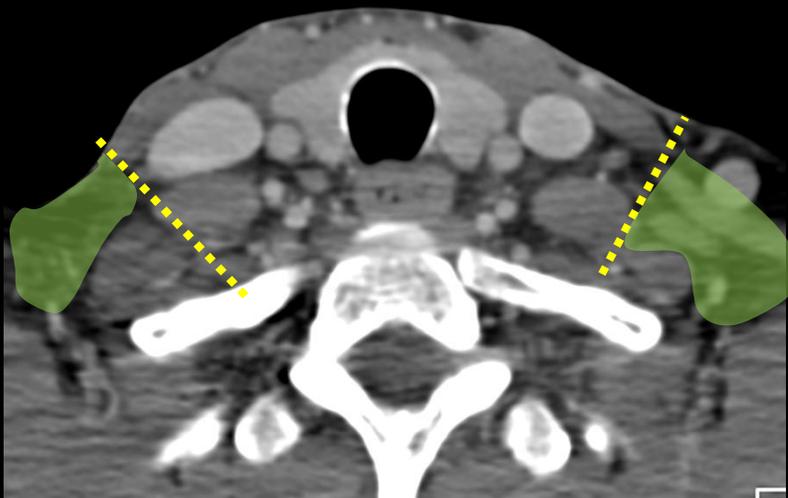
Nasofaringe
Piel cuero cabelludo y cuello
Linfoma



1. Anatomía: Niveles ganglionares

triángulo cerv. post. bajo

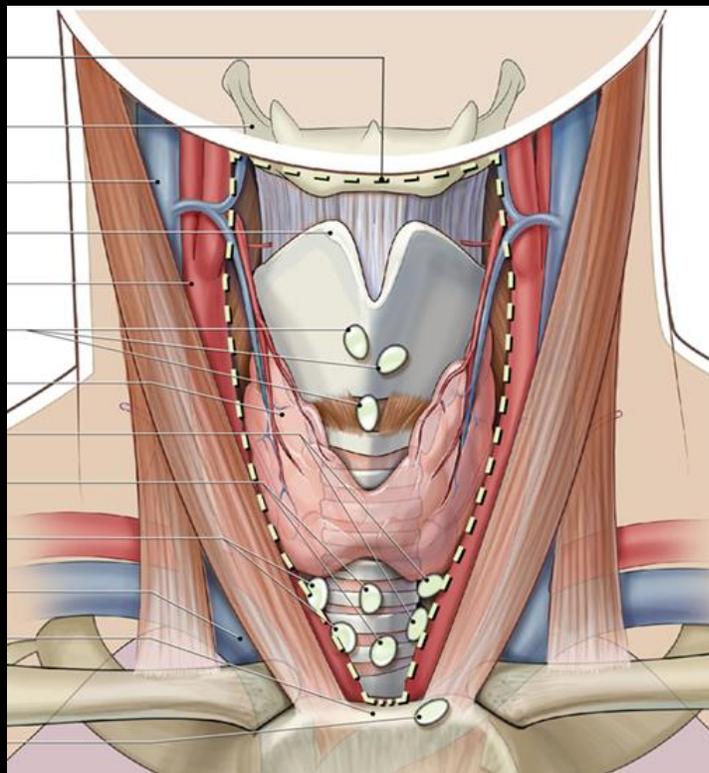
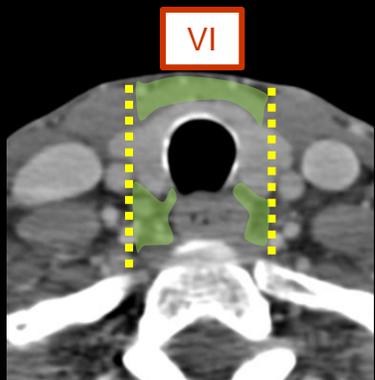
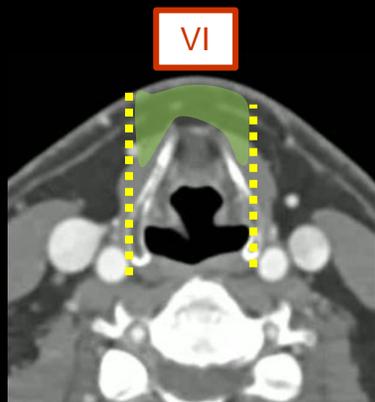
VB



VA
Tiroides
Linfoma
Tórax, abdomen

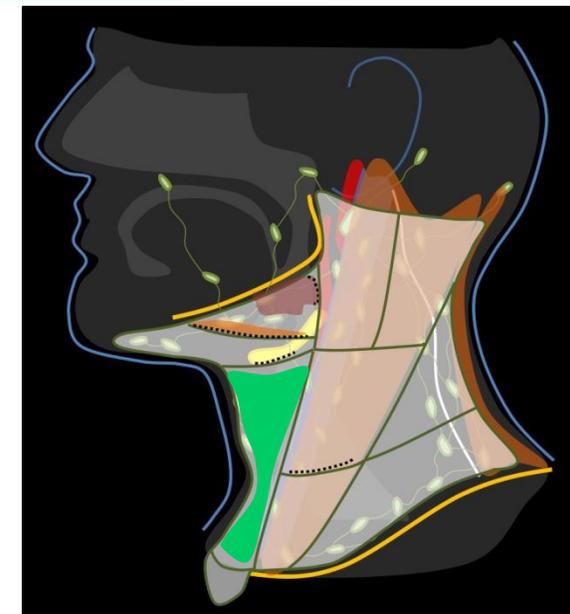
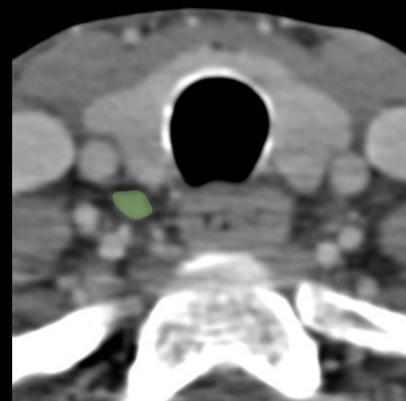
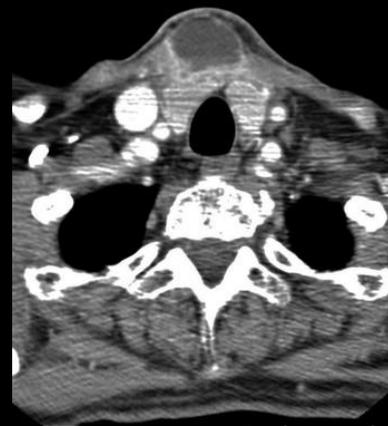


1. Anatomía: Niveles ganglionares



compartimento ant./visceral

VI



Tiroides
Glotis y subglotis
Ápex del seno piriforme
Esófago cervical



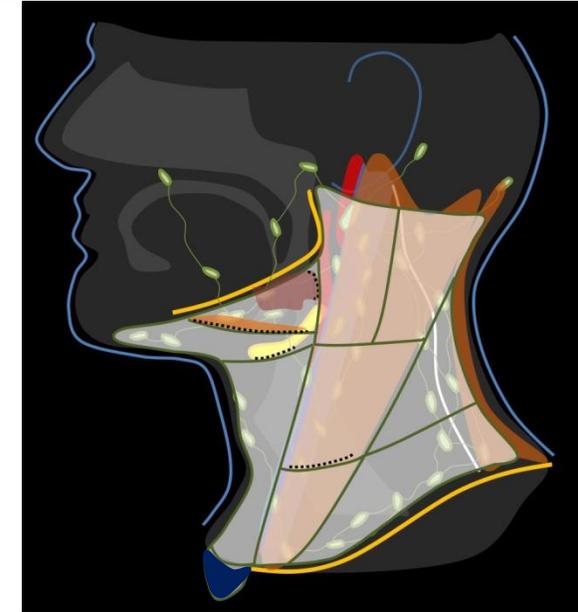
1. Anatomía: Niveles ganglionares



mediastínico superior

VII*

*sólo AJCC

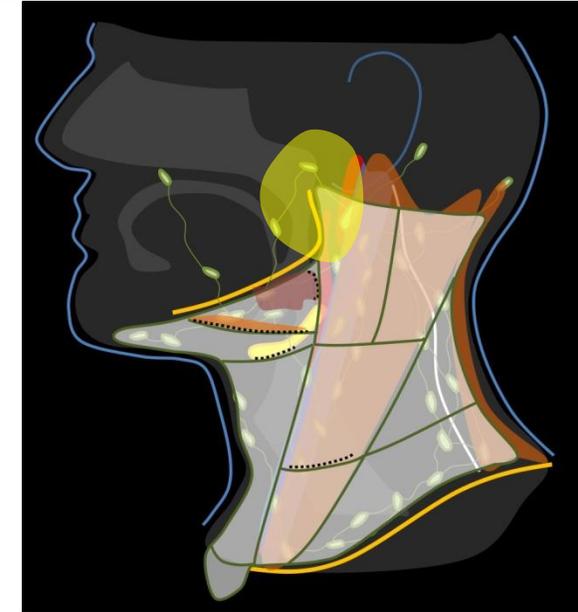
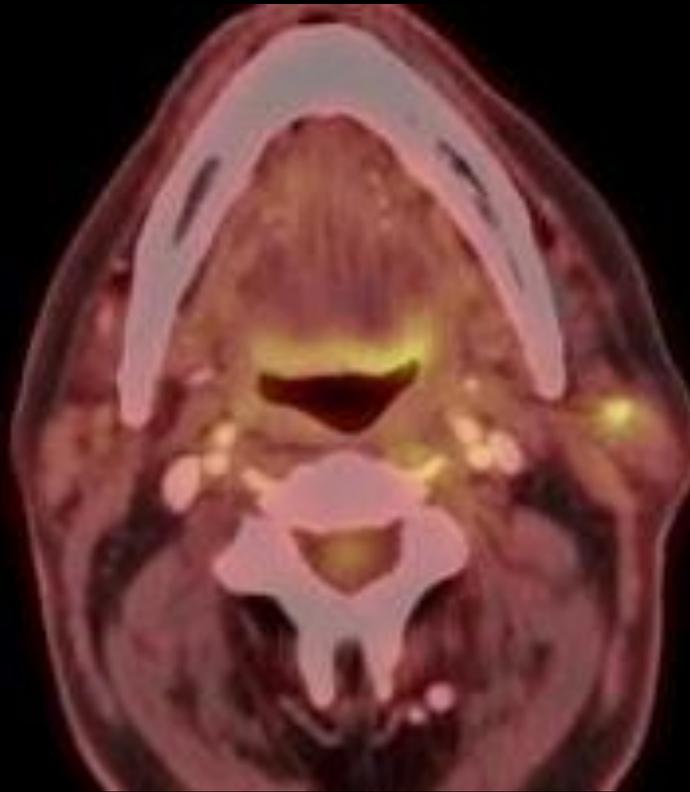
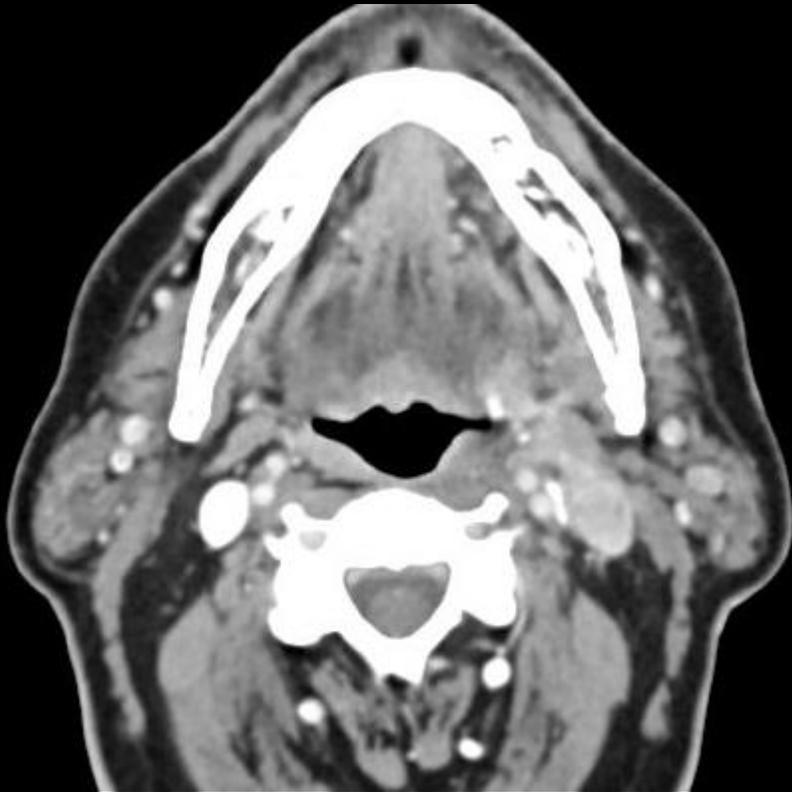


Tiroides
Linfoma
Pulmón



1. Anatomía: Niveles ganglionares

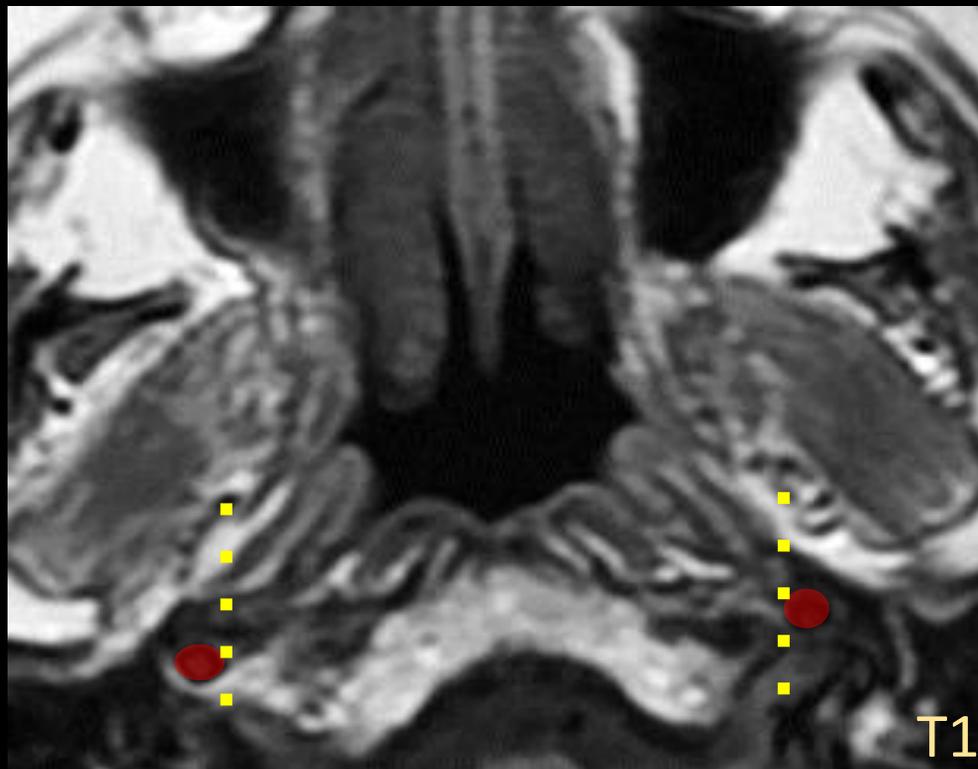
parotídeos



Piel de cuero cabelludo/cara
CAE
Melanoma
Nasofaringe

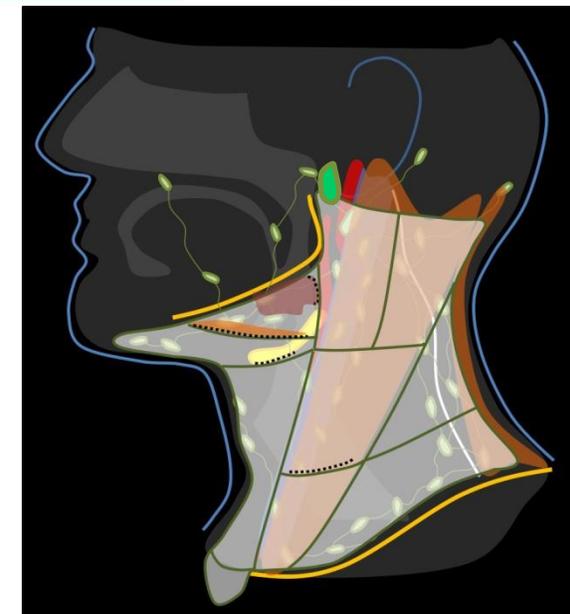
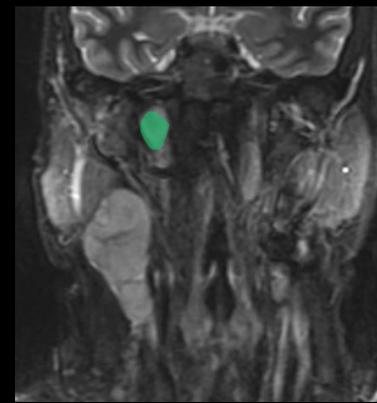
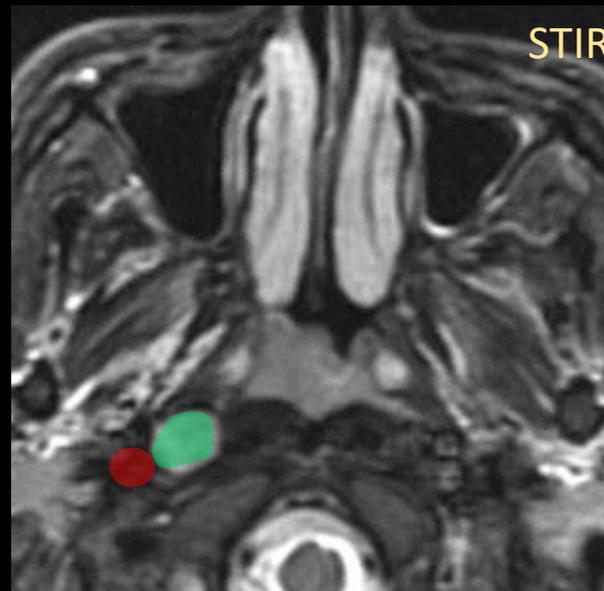


1. Anatomía: Niveles ganglionares



Medial a carótidas internas
Hasta 2 cm base cráneo
Ganglio de *Rouvière*

retrofaríngeos

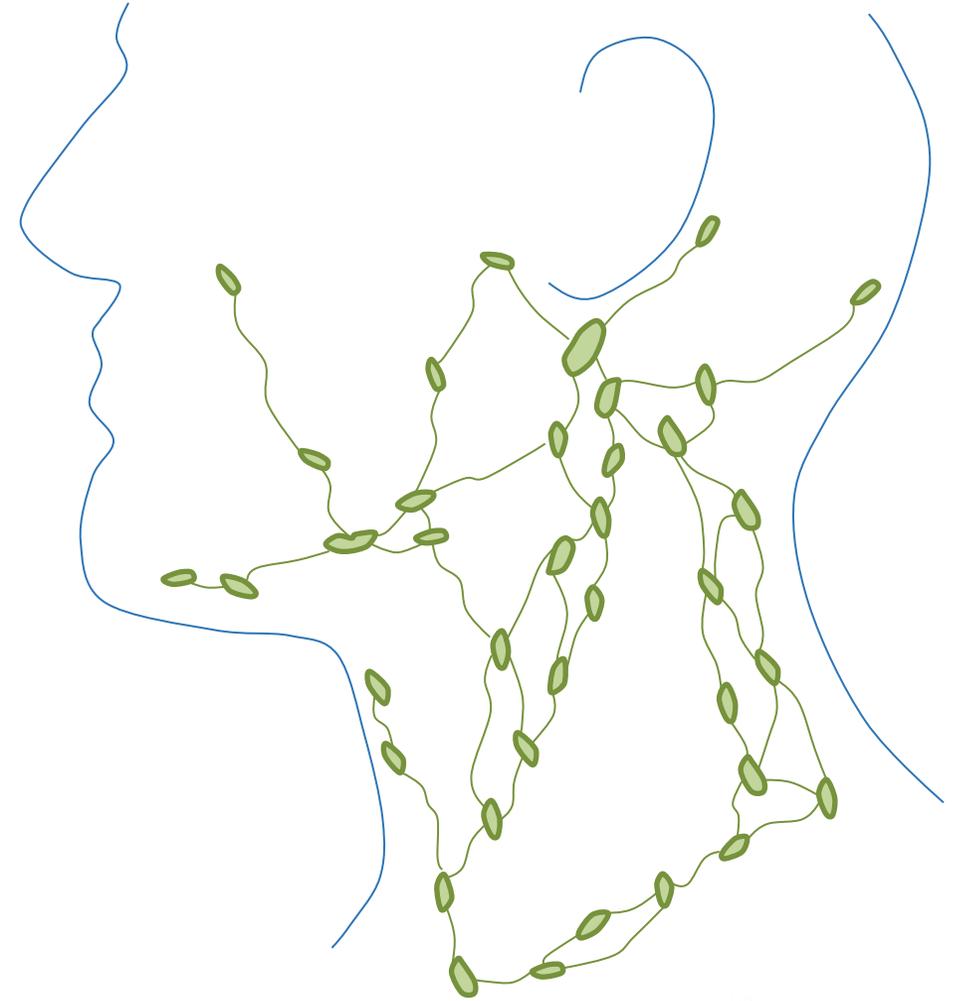


Nasofaringe
Orofaringe
Nasosinusal
Tiroides



2. Semiología adenopatías

- Tamaño
- Morfología
- Contornos (¿extensión extranodal?)
- Contenido sólido/necrótico/quístico
- Calcificaciones
- Distribución y agrupaciones



2. Semiología adenopatías

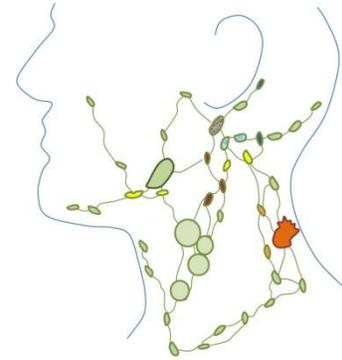
- Tamaño
- Morfología
- Contornos (¿extensión extranodal?)
- Contenido sólido/necrótico/quístico
- Calcificaciones
- Distribución y agrupaciones

N + ↓ supervivencia 50%

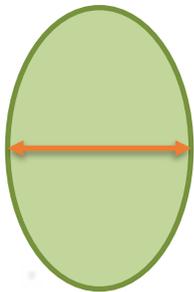


2. Semiología adenopatías

- Tamaño (> 1cm)
 - No es lo más importante.
 - Criterio variable y fuente de errores.
 - Conocer criterios RECIST, TNM, Lugano para controles.



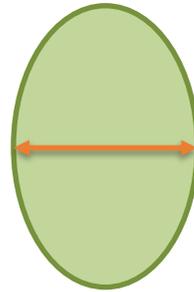
CRITERIO GENERAL



> 1cm excepto:

- IB y IIA (yugulo-digástricos) (>11-15 mm)
- retrofaríngeos (> 6-8 mm)

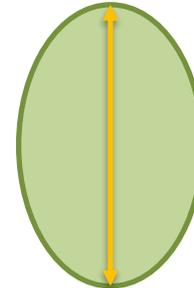
RECIST 1.1



> 1cm axial:

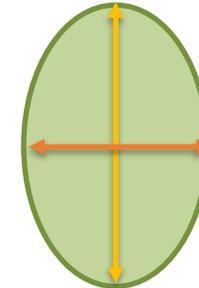
- 11-15 no medible
- >15 mm medible

TNM



Diámetro máximo en el plano en que se vea mayor.

LUGANO



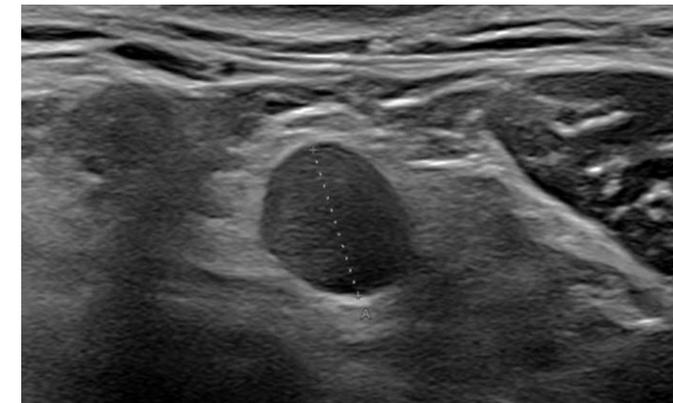
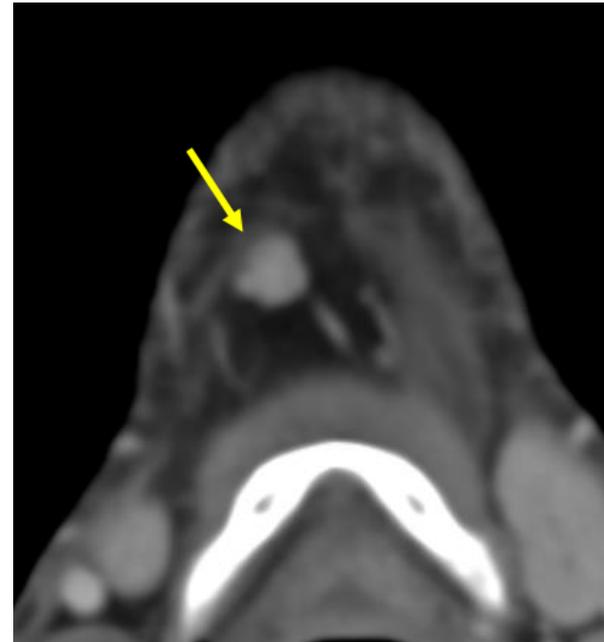
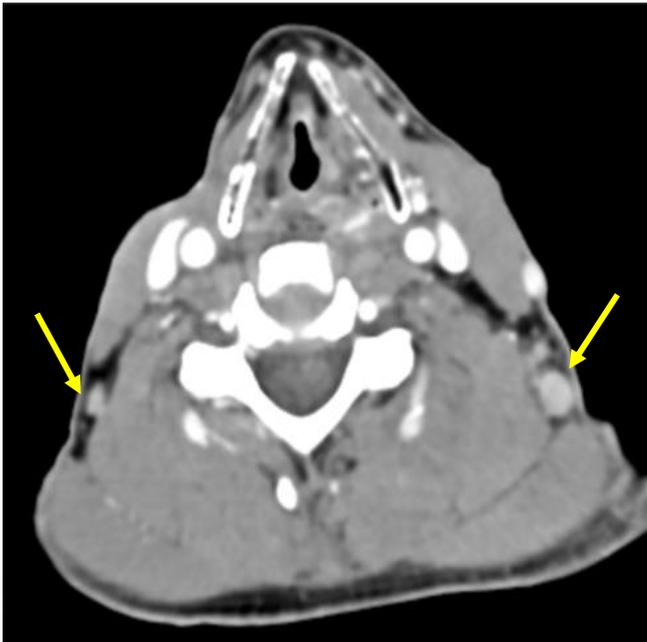
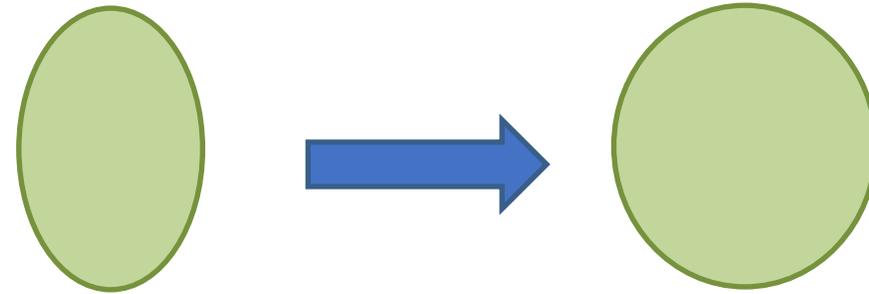
Diámetro máximo y perpendicular en el plano AXIAL

- >15 mm



2. Semiología adenopatías

- Morfología
 - Paso de reniforme a redondeada.



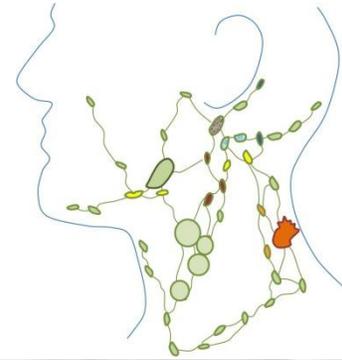
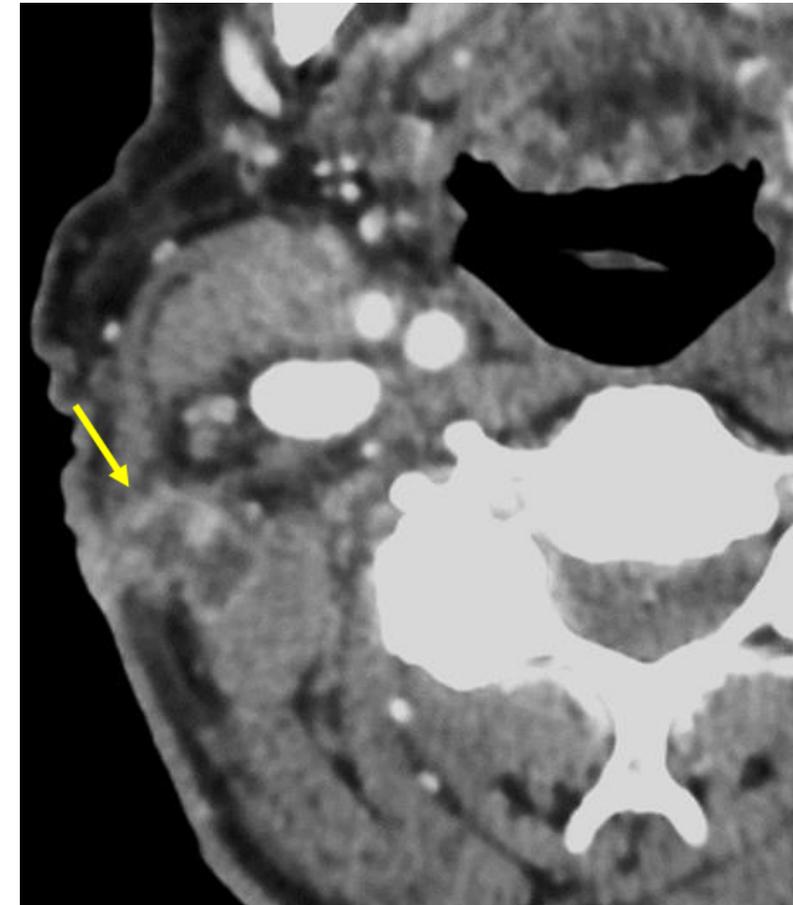
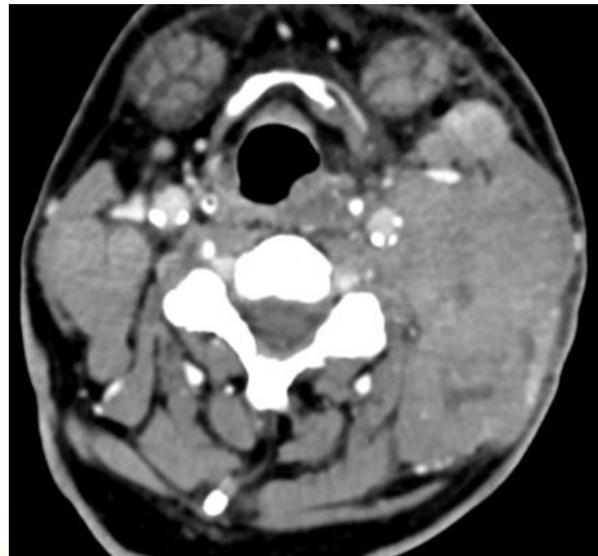
2. Semiología adenopatías

- Contornos (¿extensión extranodal?)



- Contornos irregulares, pérdida de planos grasos.
- **Criterio ENE+ (N3b TNM 8th ed) es clínico.**
(Criterio RX: infiltración grasa / muscular inequívoca)
- Biopsia o RT pueden simular ENE!

- 50% supervivencia

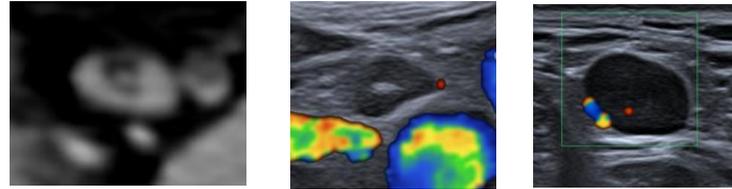


2. Semiología adenopatías

- Contenido sólido/líquido (necrótico o quístico)



- **Hilio graso**



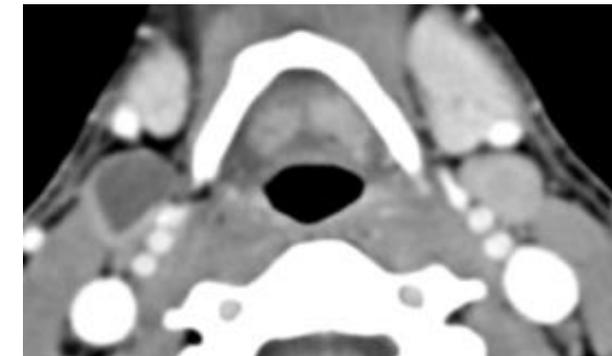
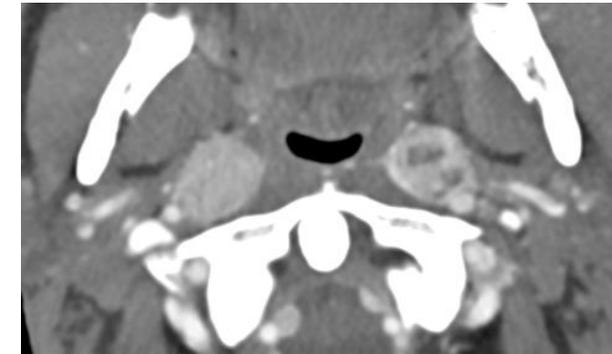
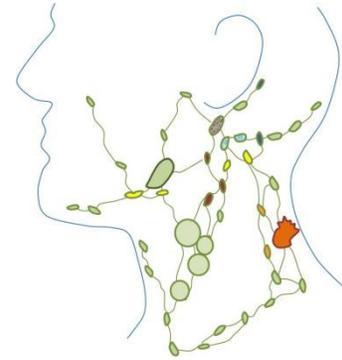
- **Hipercaptación**

- **Necrosis central:** centro líquido + captación gruesa irregular.

- signo más específico de N+ (95-100%)
- SCC >> linfoma

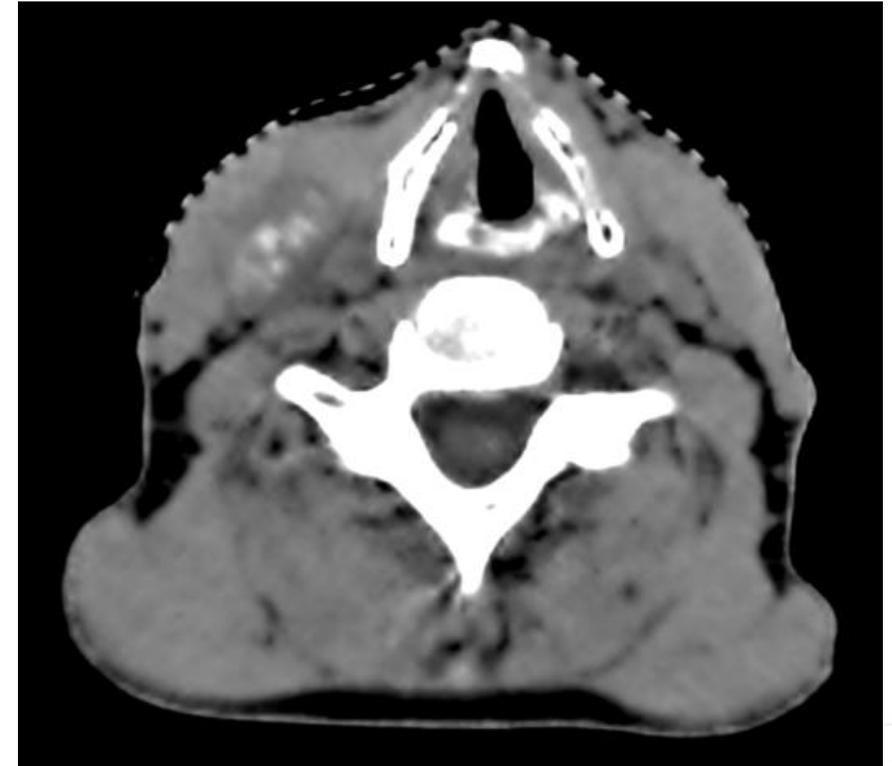
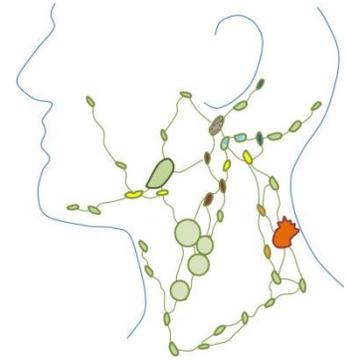
- **Adenopatía quística:** contenido líquido y pared lisa/fina.

- SCC Ofaringe (HPV p16+); DDx Quiste 2º AB
- Carcinoma papilar tiroides (hiperproteica – hiperT1)



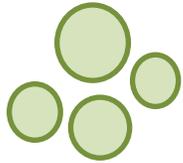
2. Semiología adenopatías

- Calcificaciones ganglionares
 - en cuello malignidad (a dif. de mediastino)
 - **TIROIDES** (papilar, medular)
 - ACa mucinoso
 - SCC
 - Linfoma tratado
 - TBC

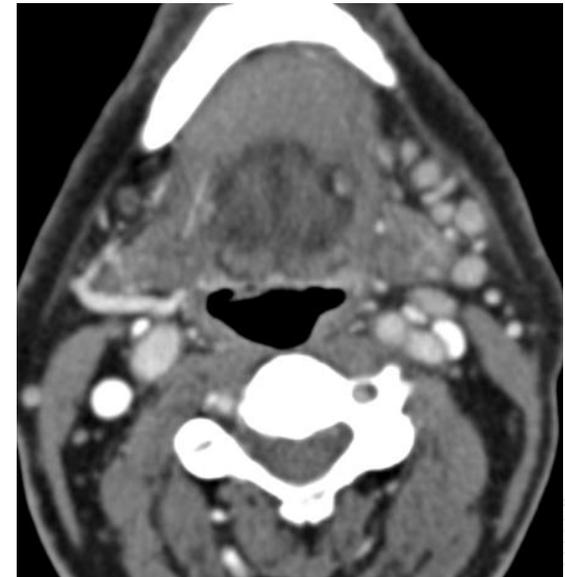
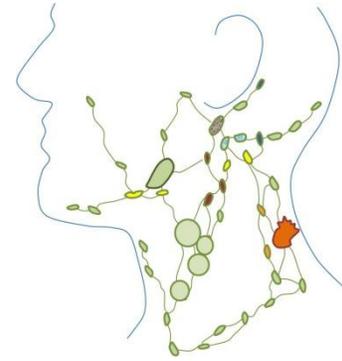


2. Semiología adenopatías

• Distribución y agrupación

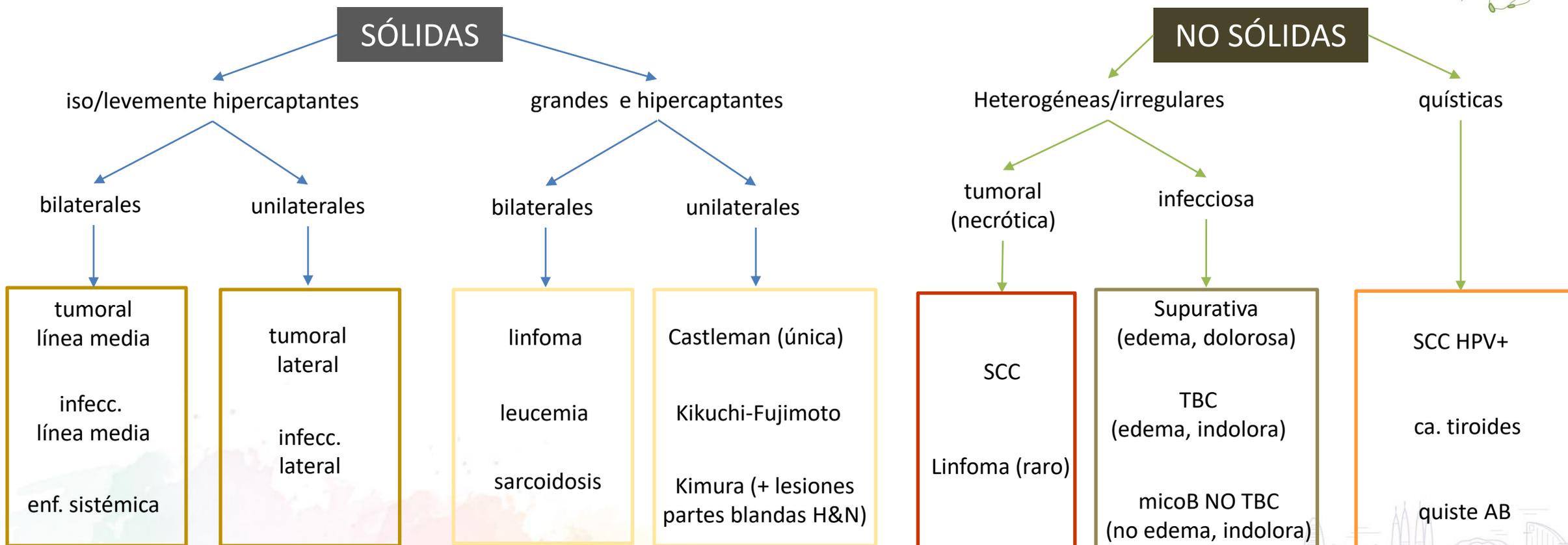
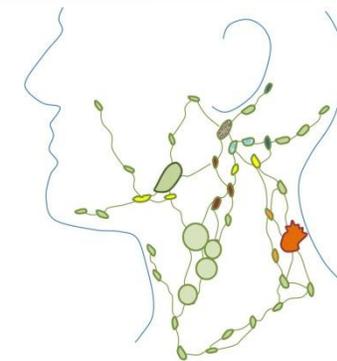


- Cada nivel se corresponde con vía de drenaje de T:
 - Guía inspección radiológica: **T → N** y **N → T** (*contexto de NOD*)
- **Bilateralidad** más frecuente en tumores de línea media (cavidad oral, nasal, nasofaringe, epiglotis)
- **Predominio posterior**: linfoma, nasofaringe, piel
- **≥ 3 GG contiguos y/o confluentes = ↑ sospecha**



2. Semiología adenopatías

- Algoritmo diagnóstico diferencial etiológico adenopatías



4. Conclusiones

- Necesario lenguaje común para facilitar la planificación terapéutica Qx y RT.
- Revisar niveles I-VII + grupos (retrofaríngeas, parotídeas).
- Vías de drenaje: guía inspección radiológica de T → N o de N → T (NOD).
- El tamaño no es lo más importante; necrosis central signo más específico de N+.
- ENE+ radiológico tiene que ser inequívoco (infiltración grasa/músculo).
- Prestar atención a agrupaciones de ganglios con distribuciones predominantes ayuda acotar el diagnóstico diferencial.



¡Muchas gracias por vuestra atención!

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