

Klinická anatomie - krk

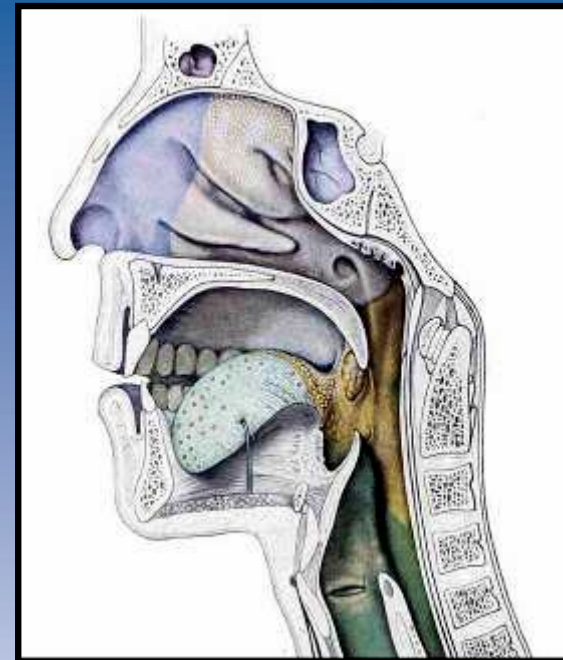
Jan Plzák

*Klinika otorinolaryngologie a chirurgie hlavy
a krku 1. LF UK*

Anatomický ústav 1. LF UK

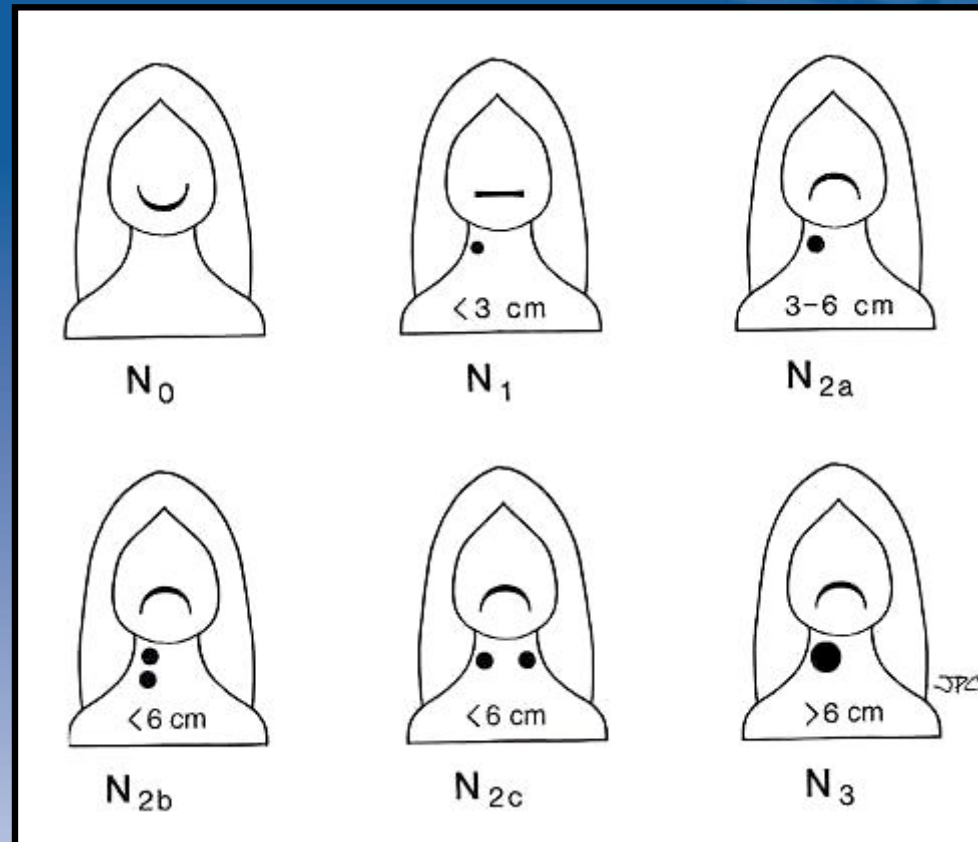
Dlaždicové karcinomy hlavy a krku

- 5. nejčastější malignita
(500 000/rok celosvětově)
- rizikové faktory – kouření, alkohol
- ↑oropharynx, larynx, ...

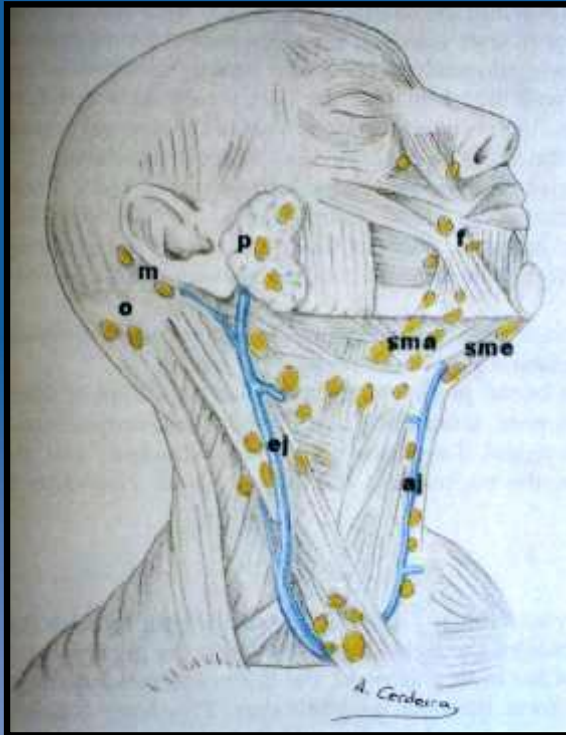


- přítomnost lymfatických metastáz je nejvýznamnějším prognostickým parametrem

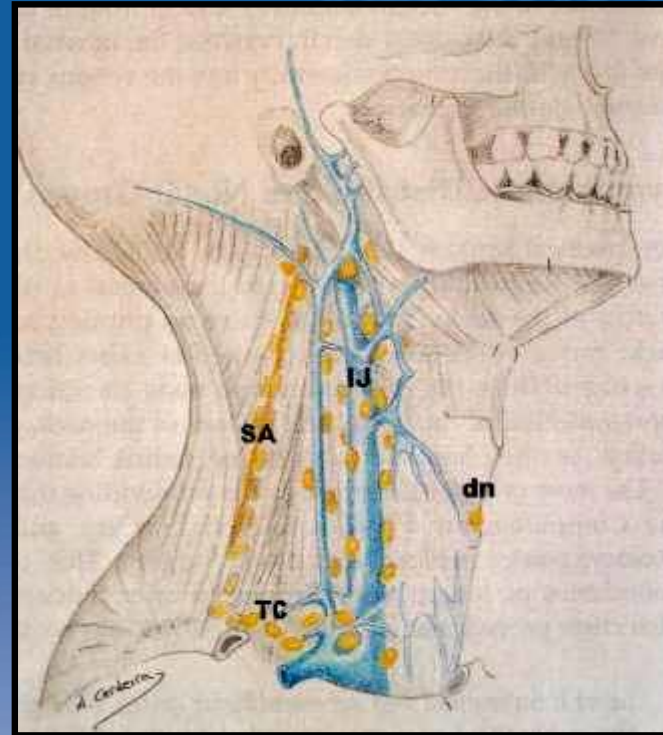
- přežití při N+ je o ½ horší než u N0 !



KRČNÍ LYMFATICKÉ UZLINY



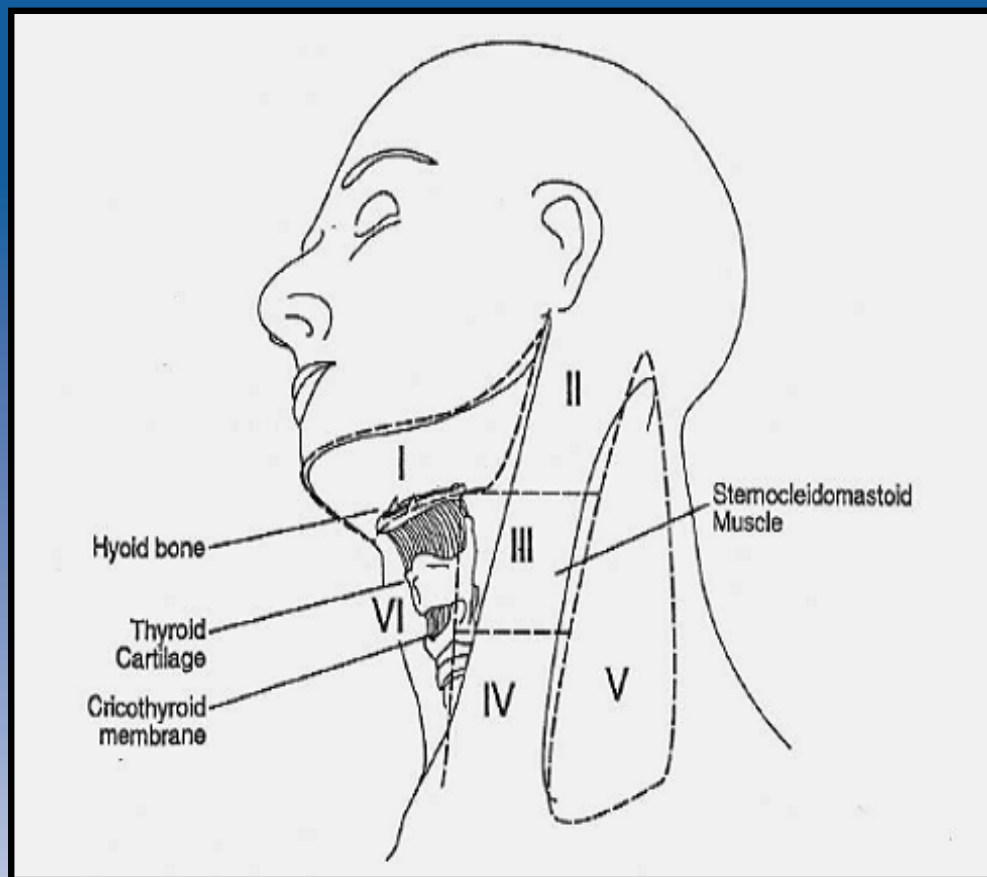
povrchový systém



hluboký systém

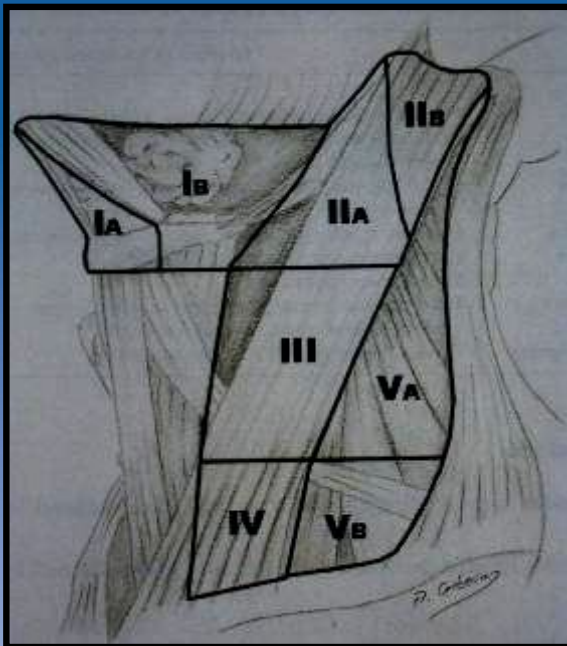
KRČNÍ LYMFATICKÉ UZLINY

klinická klasifikace hlubokého systému krčních uzlin
(Memorial Sloan-Kettering Cancer Center)



KRČNÍ LYMFATICKÉ UZLINY

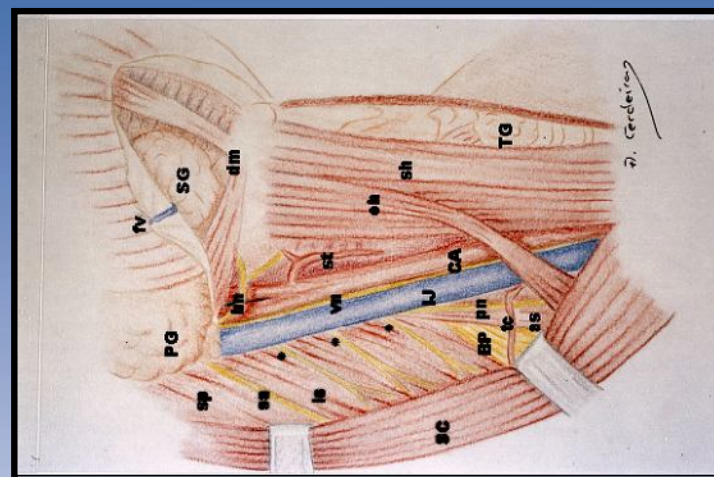
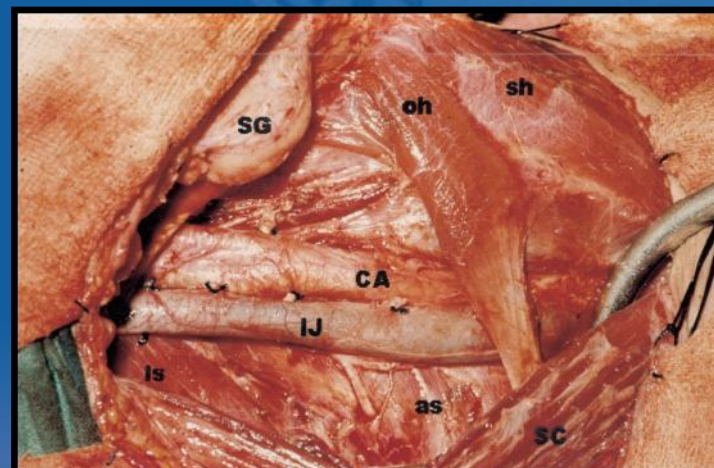
klinická klasifikace systému krčních uzlin:



- oblasti I-VI
- uzliny mimo oblasti I-VI:
 - perifaciální uzliny
 - periparotické uzliny
 - retroaurikulární uzliny
 - subokcipitální uzliny
 - retropharyngeální uzliny

KRČNÍ DISEKCE

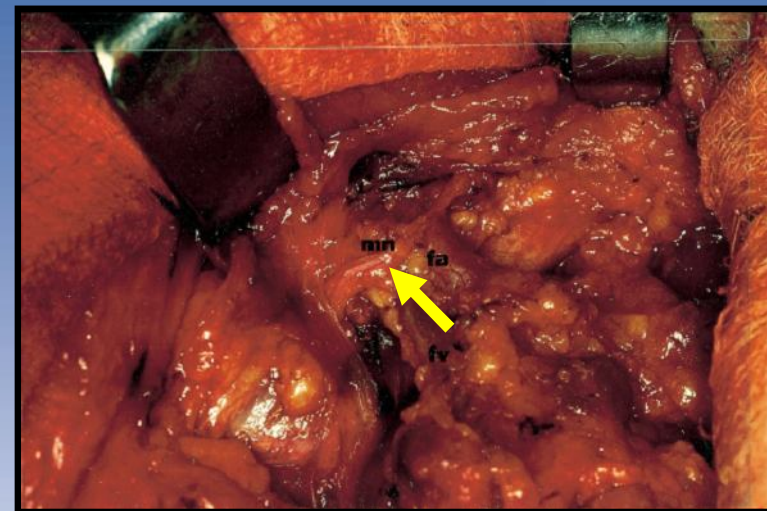
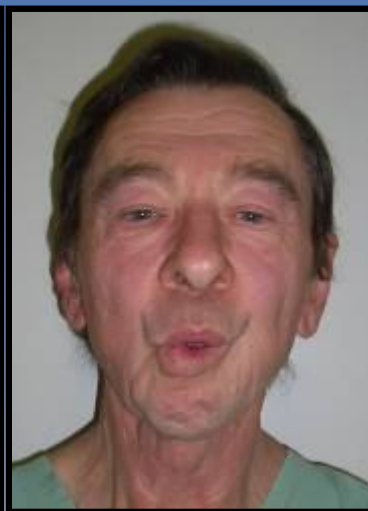
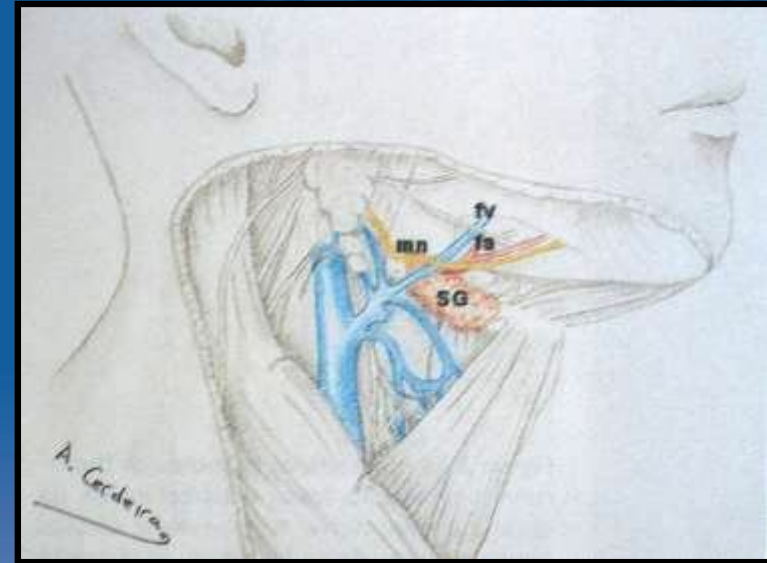
- systematické odstranění krčních lymfatických uzlin event. s odstraněním nelymfatických struktur (submandibulární žláza, m. sternocleidomastoideus, v. jugularis interna, n. XI etc.)
- operace s jasnými anatomickými hranicemi danými fasciální kompartmentalizací krku



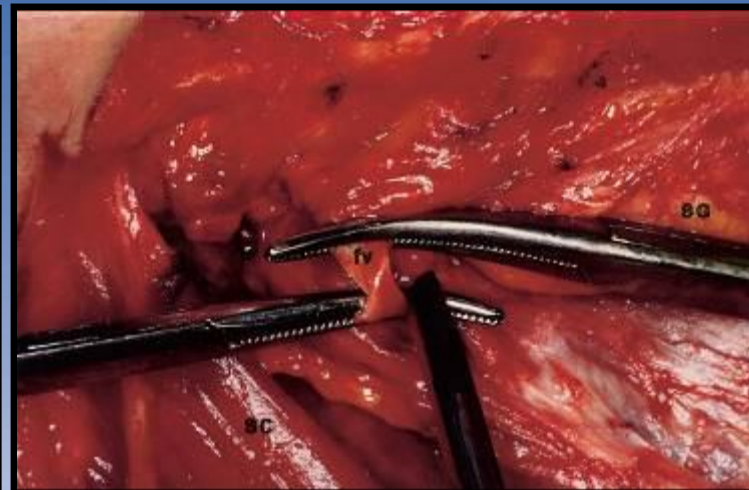
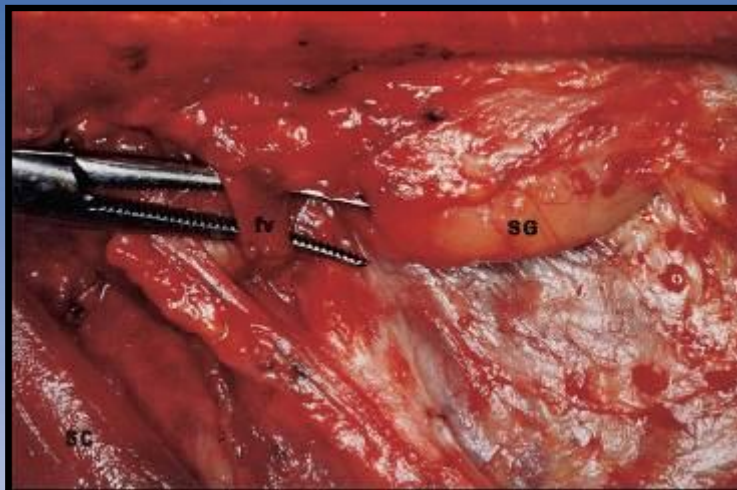
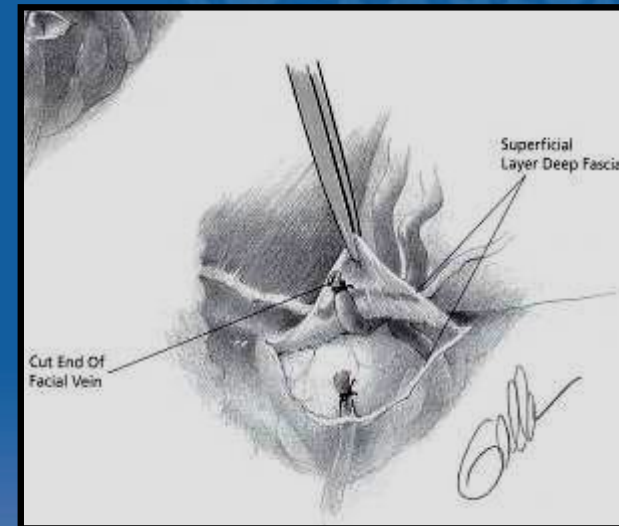
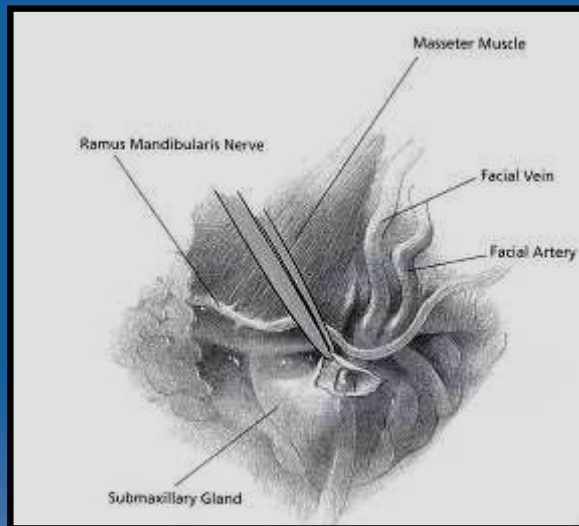
KLASIFIKACE KRČNÍCH DISEKCÍ

- radikální: I-V + MSCM+VJI+N XI
- modifikovaná radikální: I-V se šetřením nelymfatických struktur (N XI, VJI, MSCM)
- selektivní: šetřící některé z oblastí lymfatických uzlin
- rozšířená: resekce další nelymfatické struktury či lymfatické uzliny

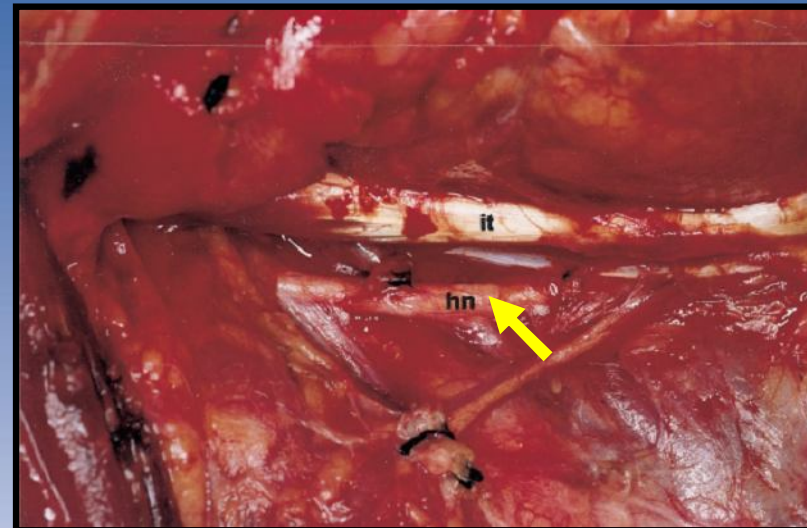
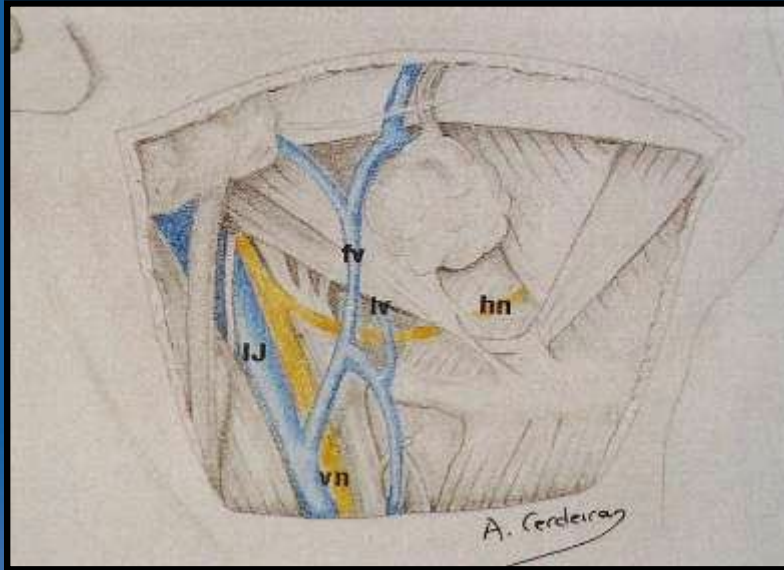
R. MARGINALIS N. FACIALIS



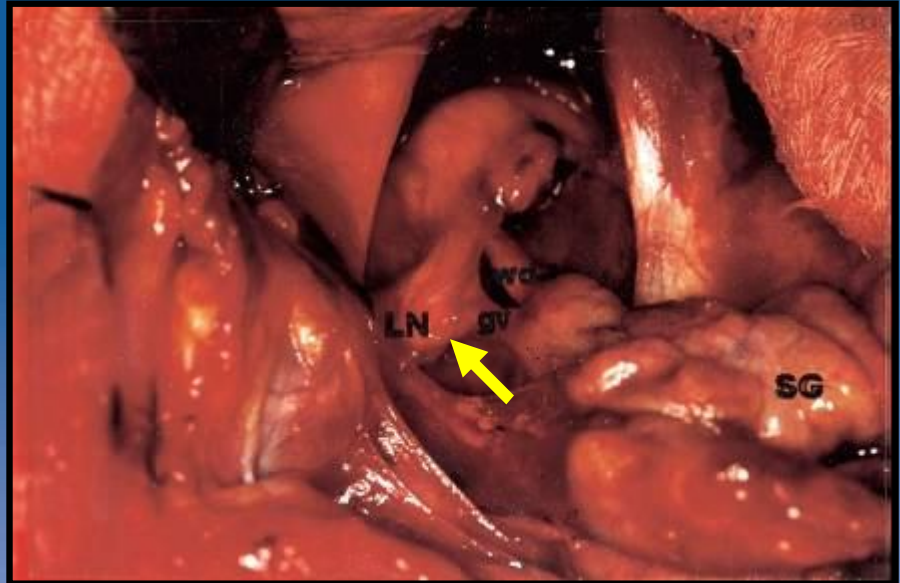
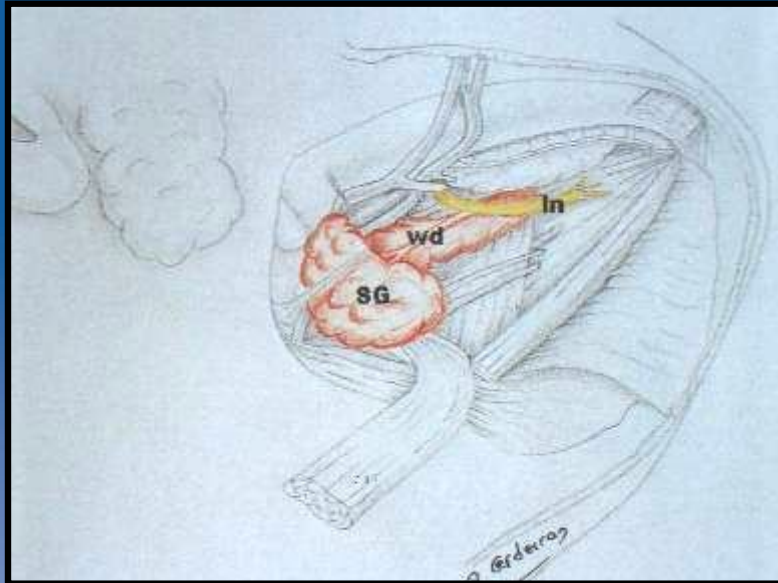
R. MARGINALIS N. FACIALIS



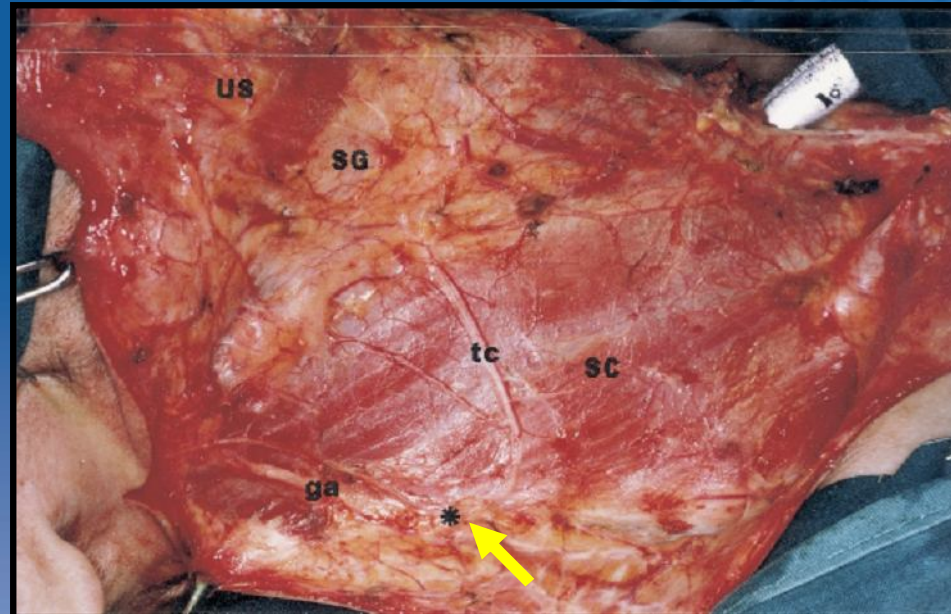
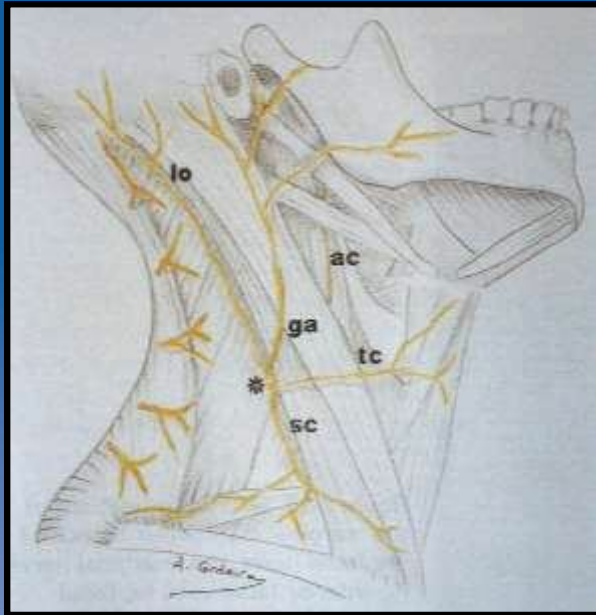
N. HYPOGLOSSUS



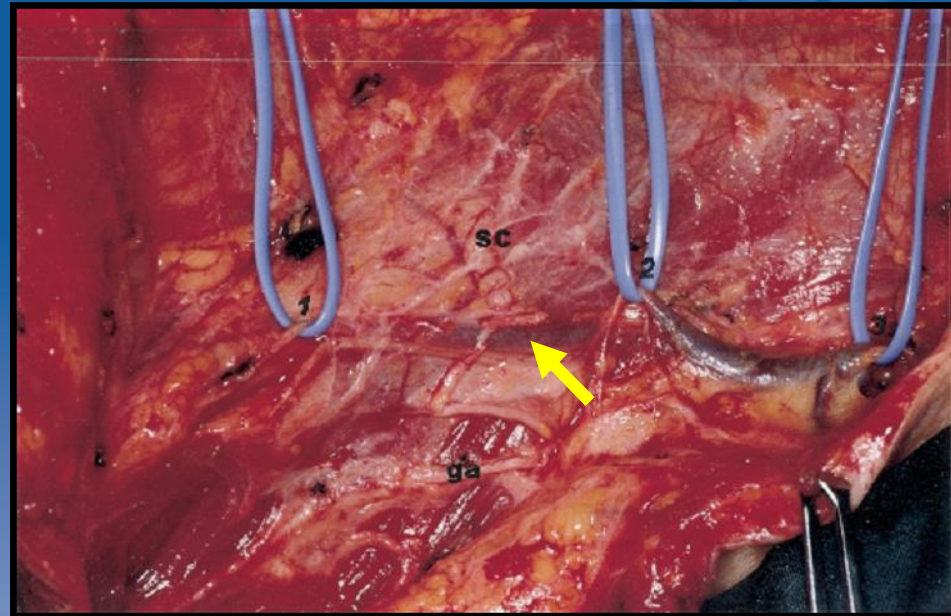
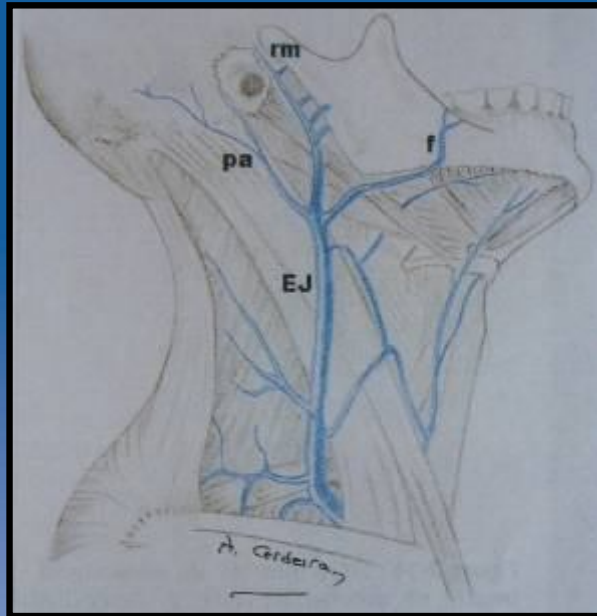
N. LINGUALIS



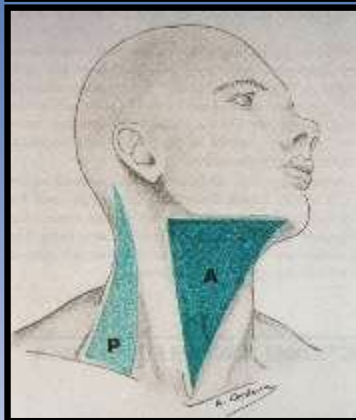
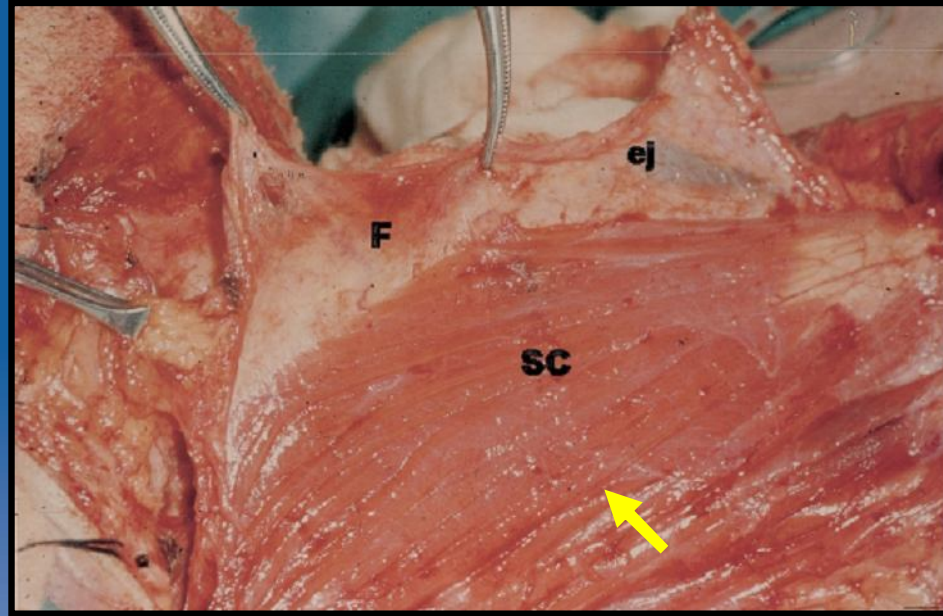
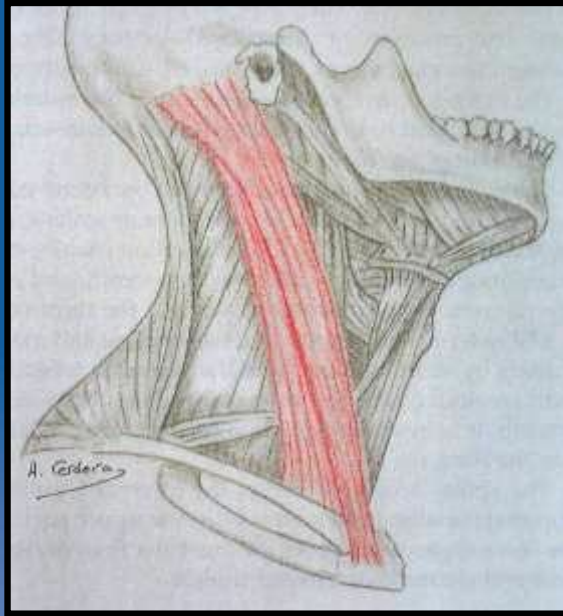
PL. CERVICALIS



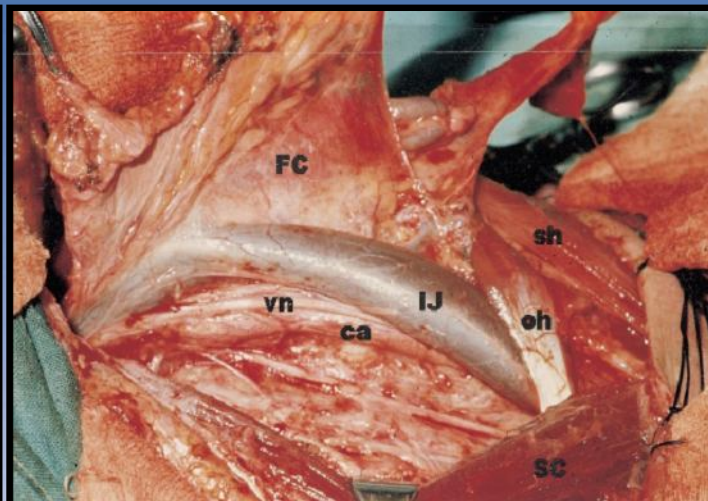
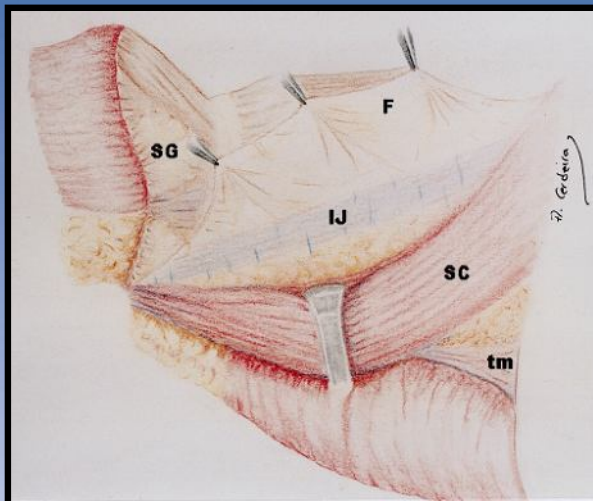
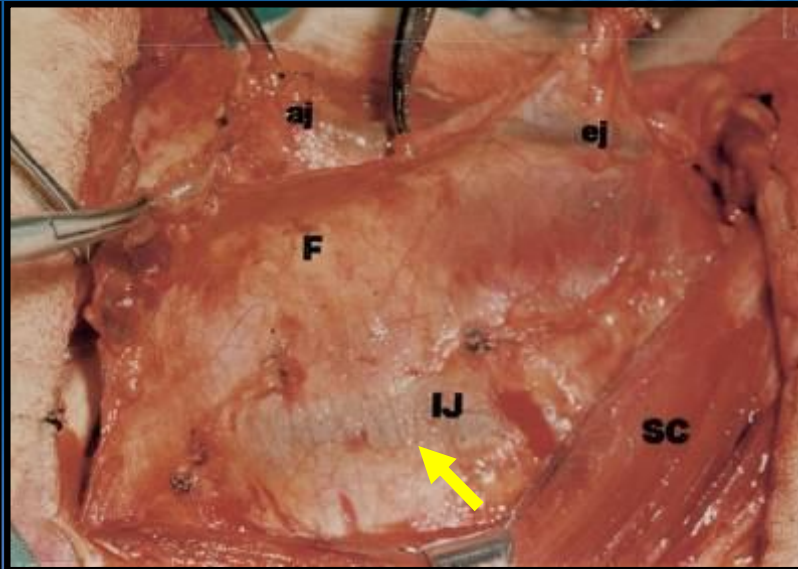
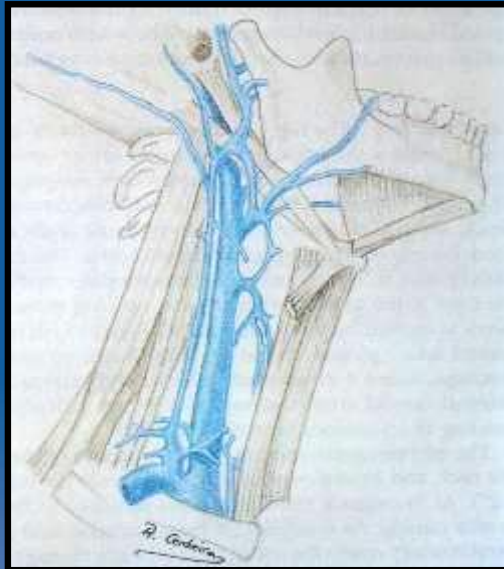
V. JUGULARIS EXTERNA



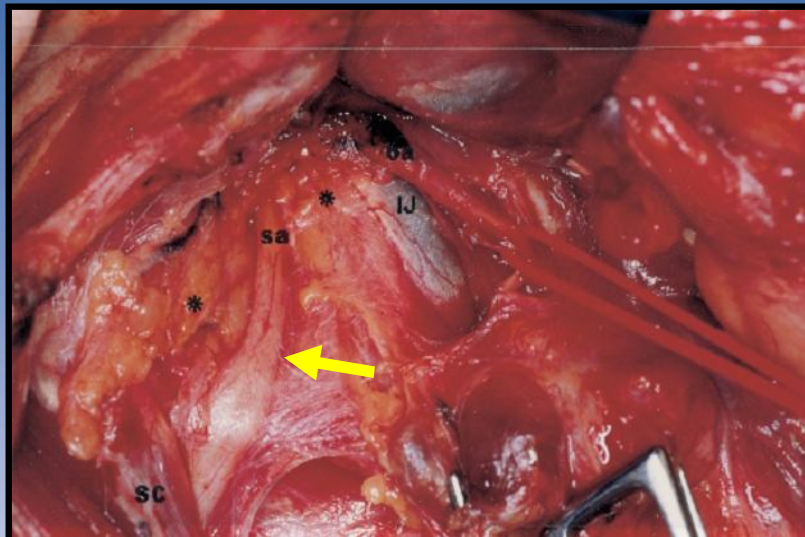
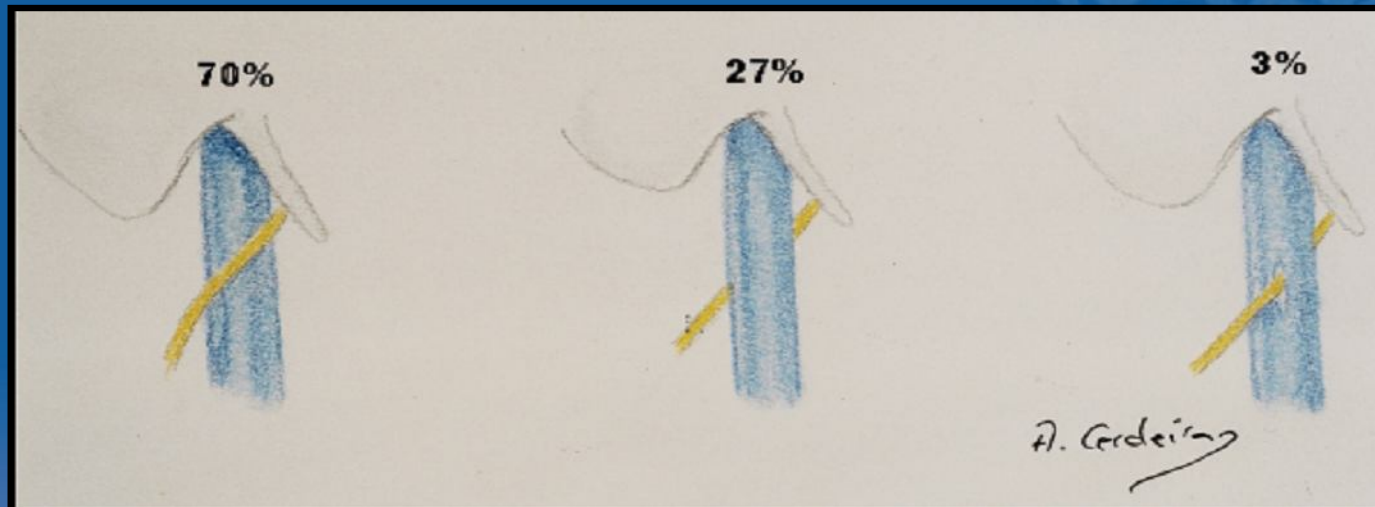
M. STERNOCLEIDOMASTOIDEUS



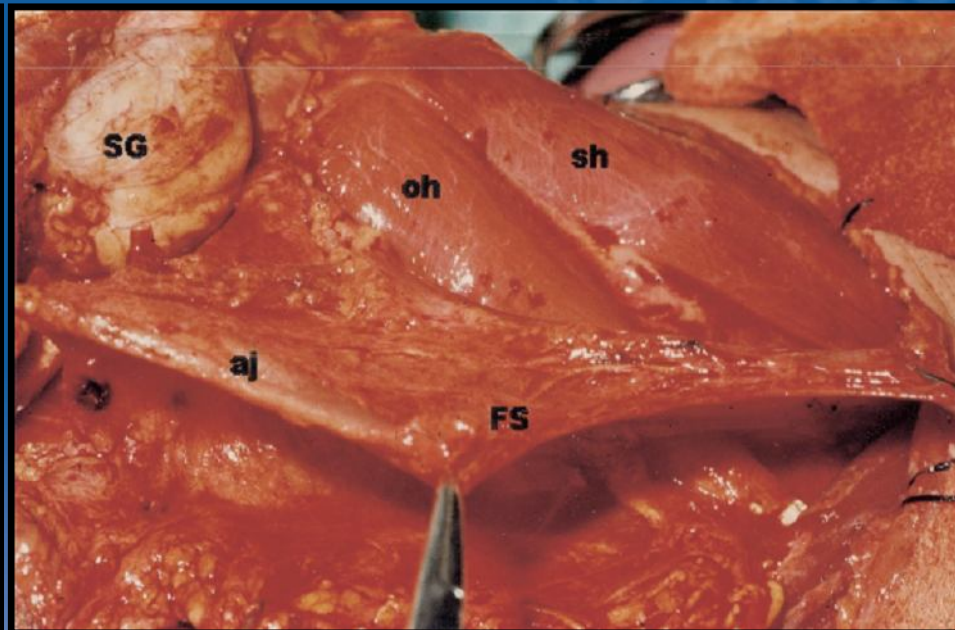
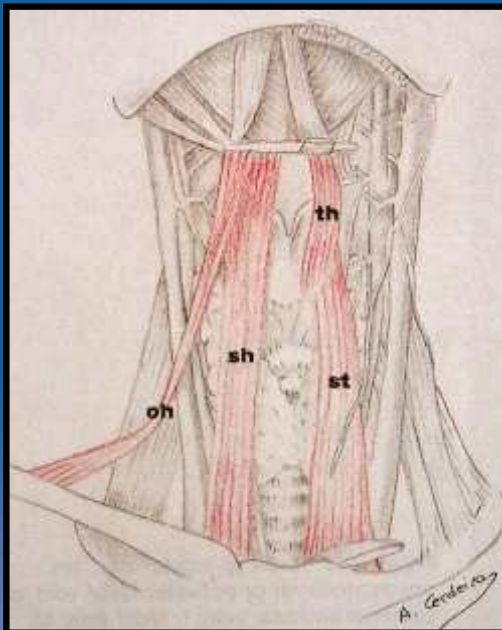
V. JUGULARIS INTERNA



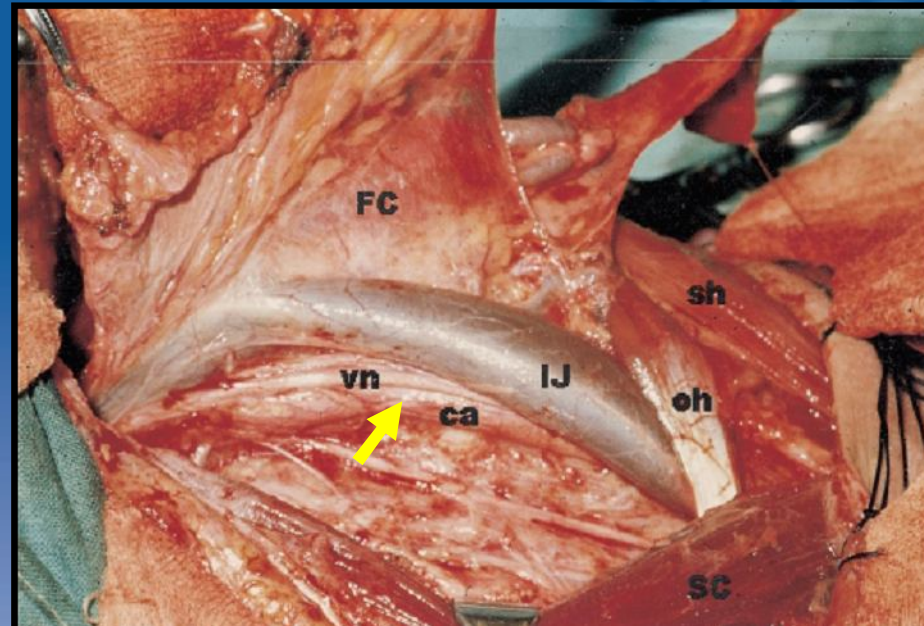
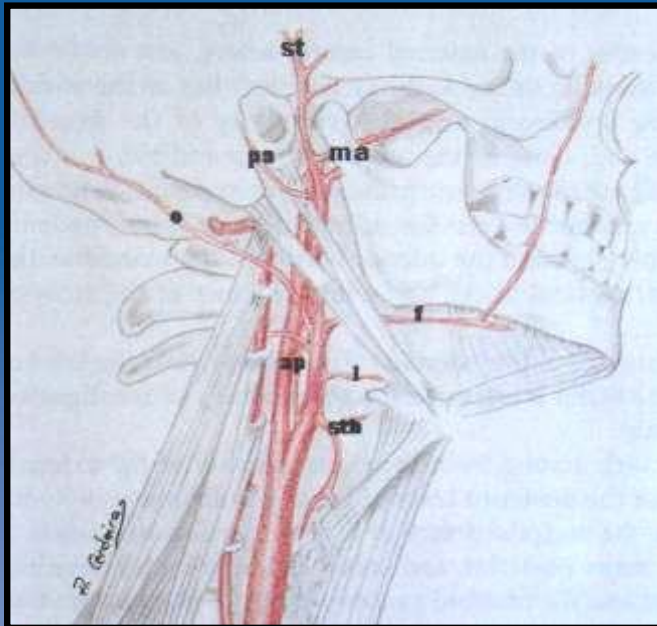
N. ACCESSORIUS



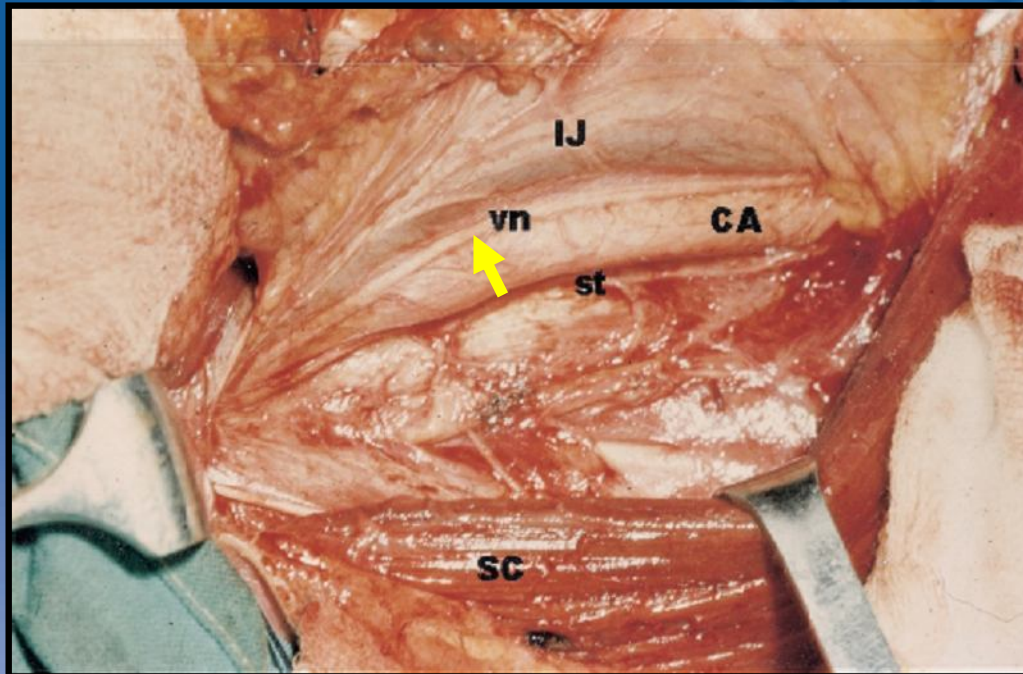
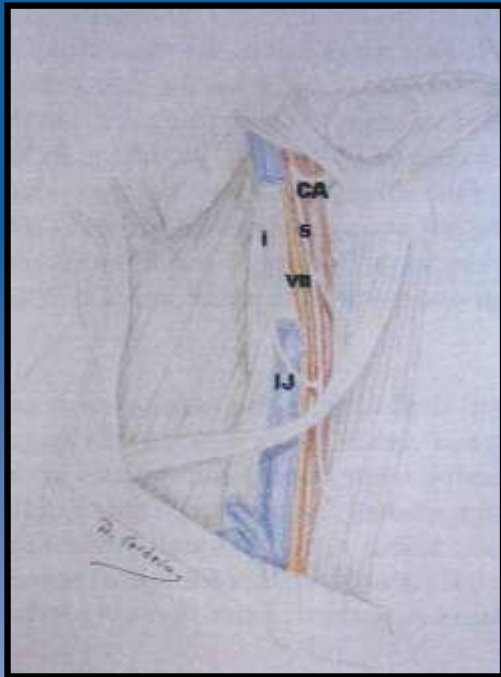
INFRAHYOIDNÍ SVALY



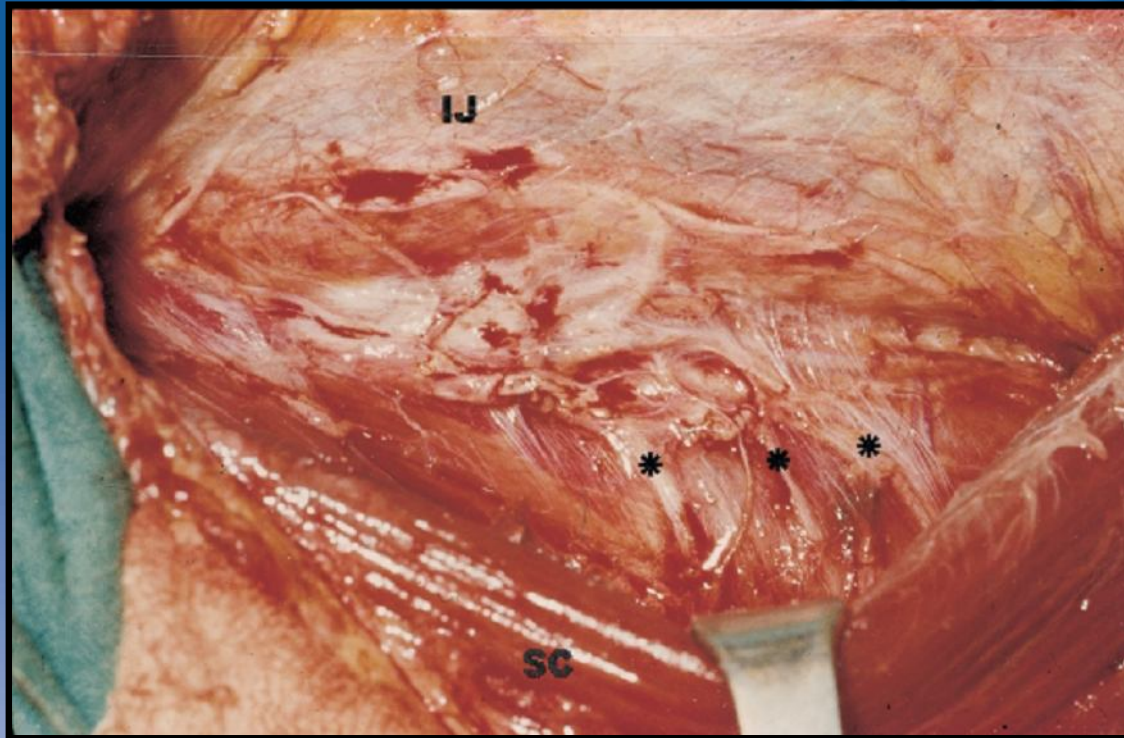
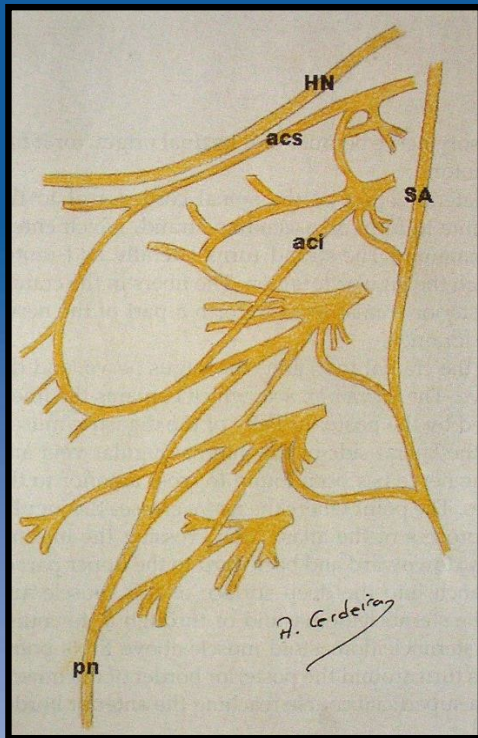
A. CAROTIS



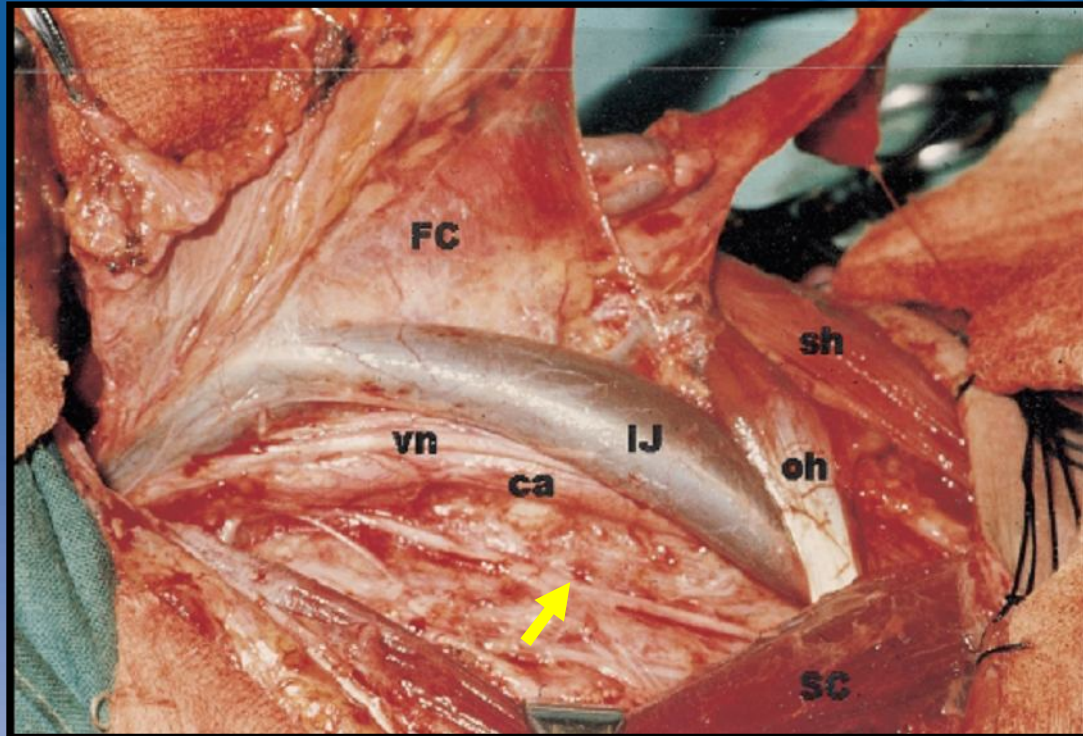
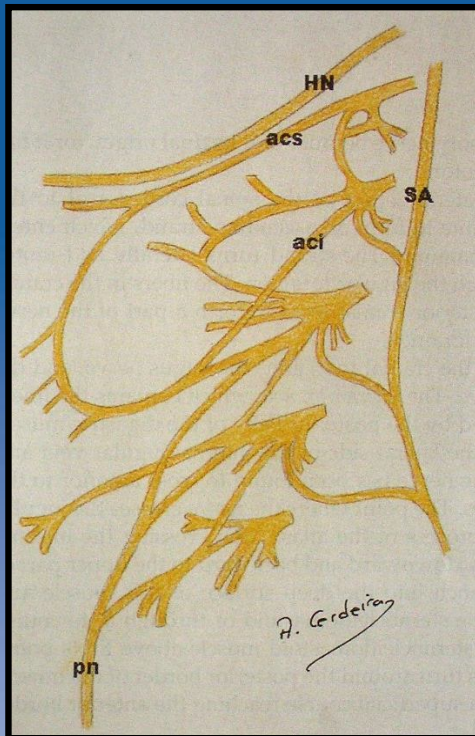
N. VAGUS



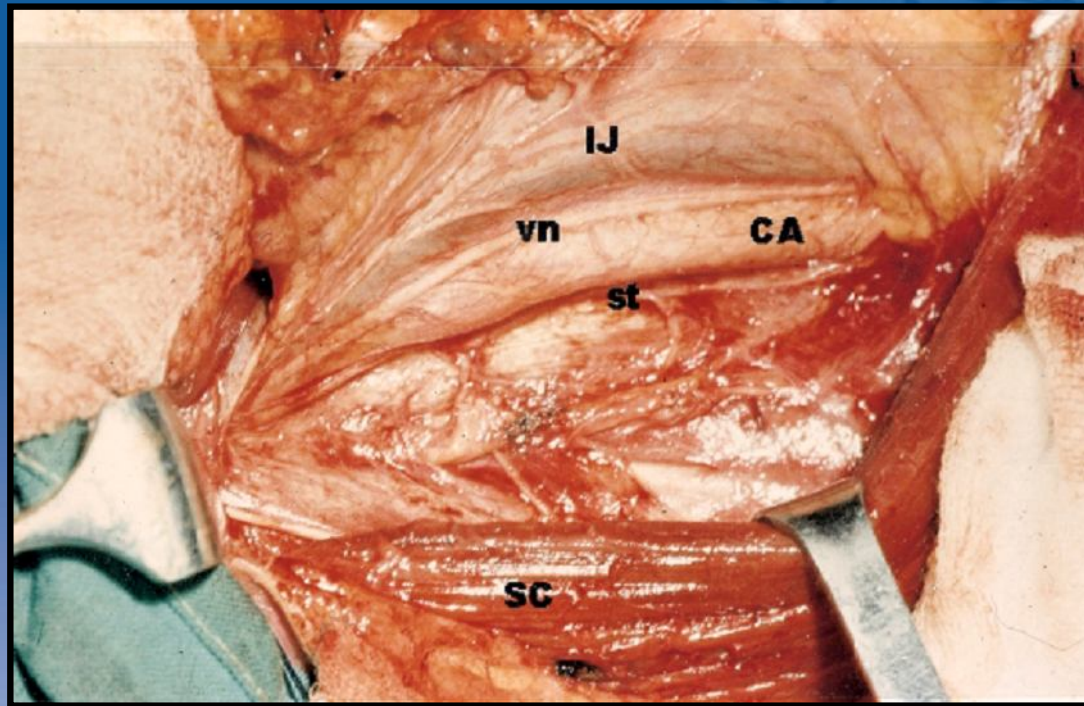
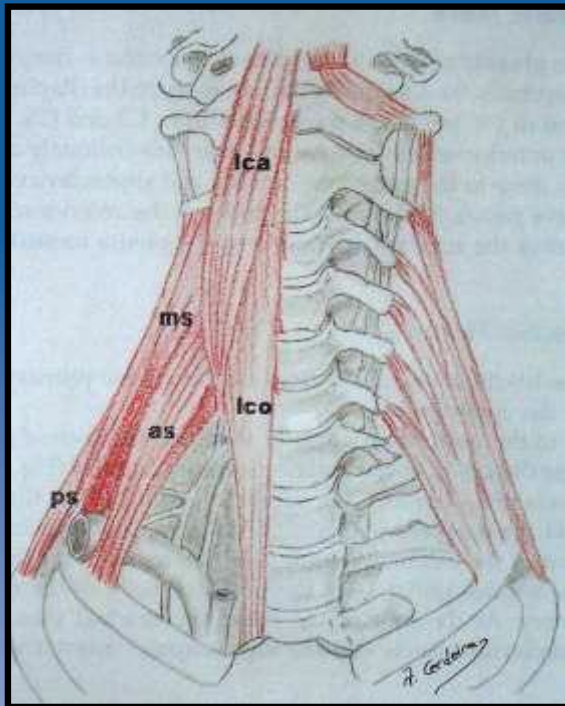
PLEXUS CERVICALIS



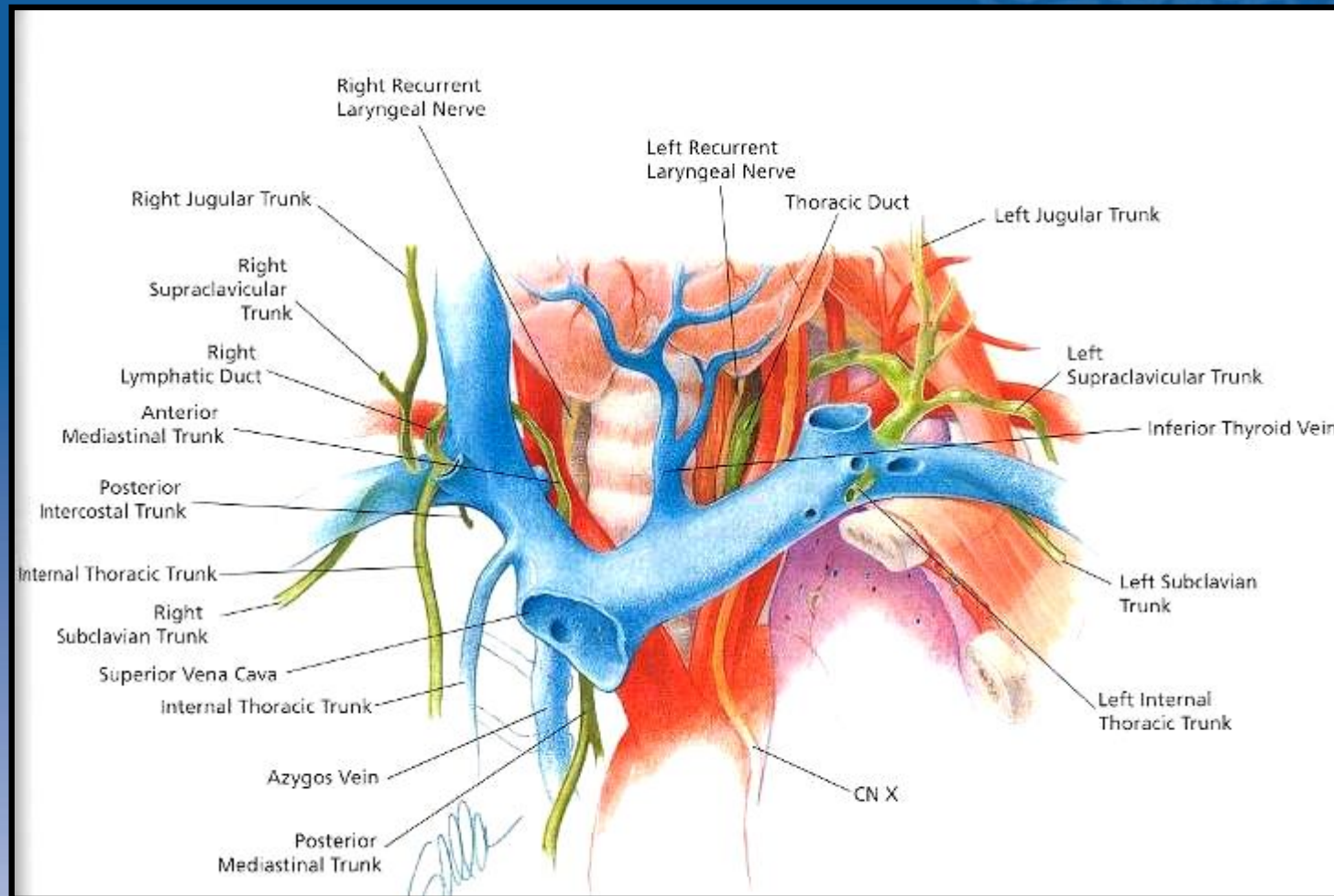
N. PHRENICUS



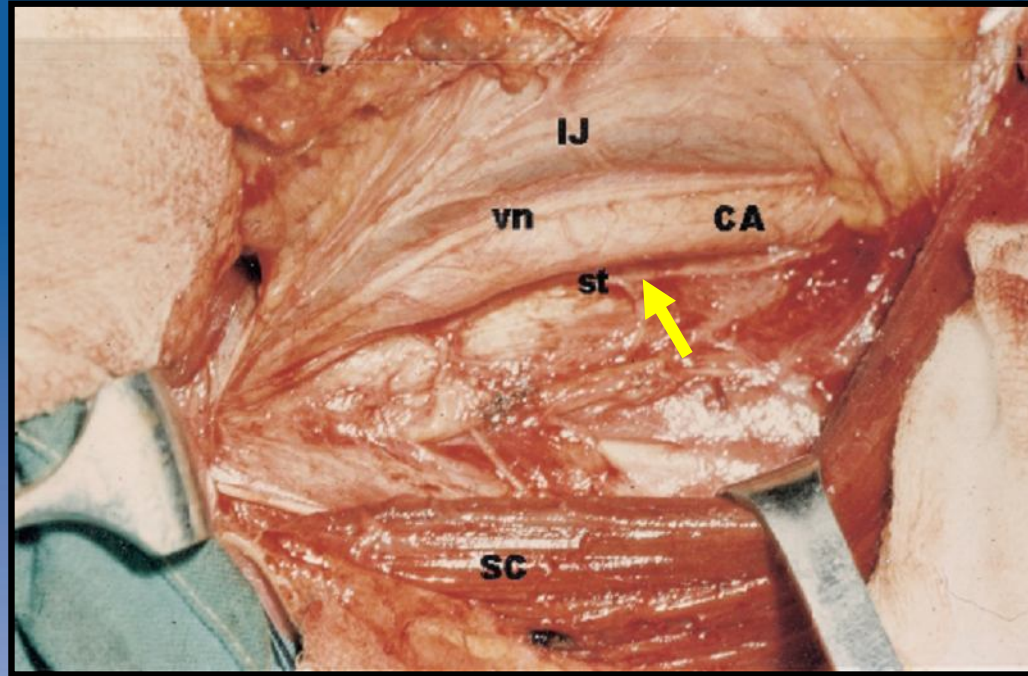
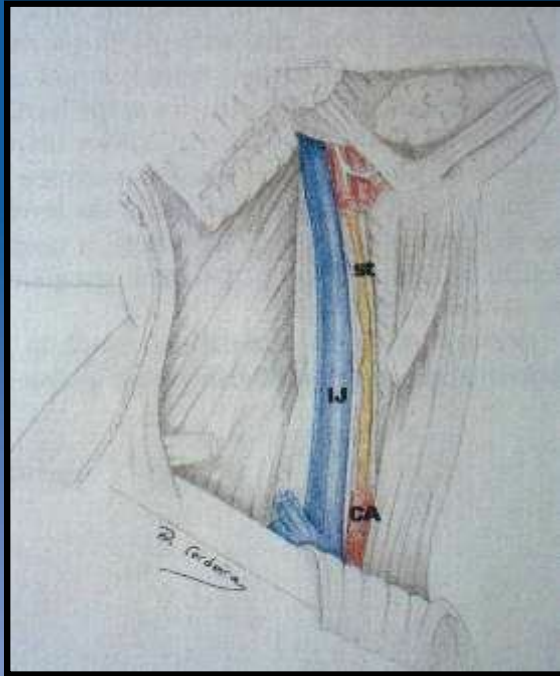
HLUBOKÉ KRČNÍ SVALY



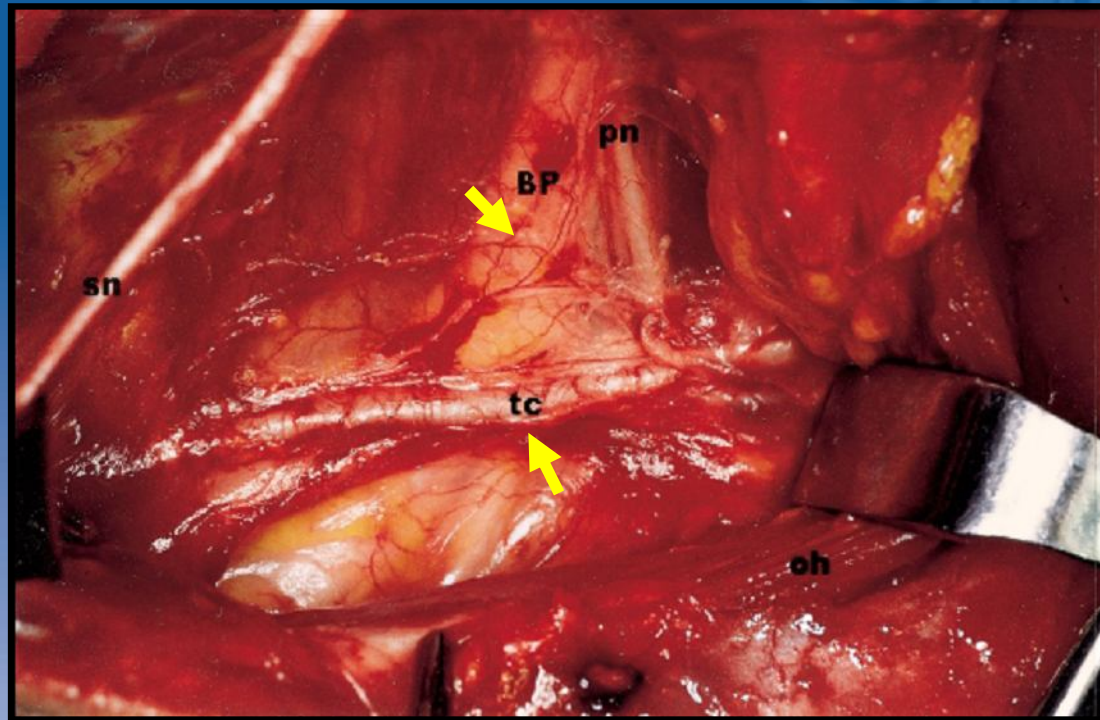
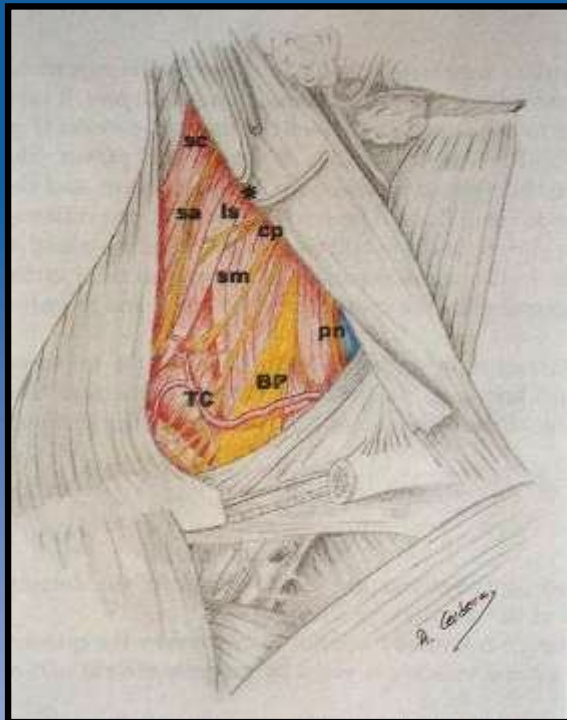
DUCTUS THORACICUS



TRUNCUS SYMPATHICUS



PLEXUS BRACHIALIS VASA TRANSVERSA COLLI



TRACHEOTOMIA



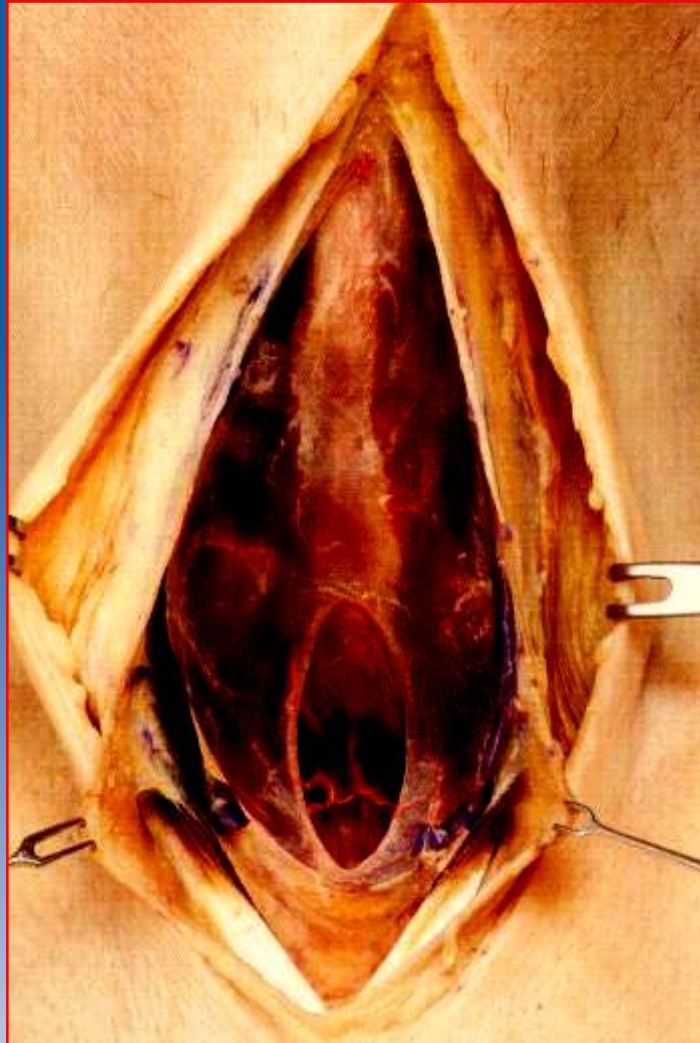
- kůže
- podkoží
- aberantní vlákna m. platysma

TRACHEOTOMIA



- fascia colli superficialis
- vv. jugulares anteriores
- arcus venosus juguli

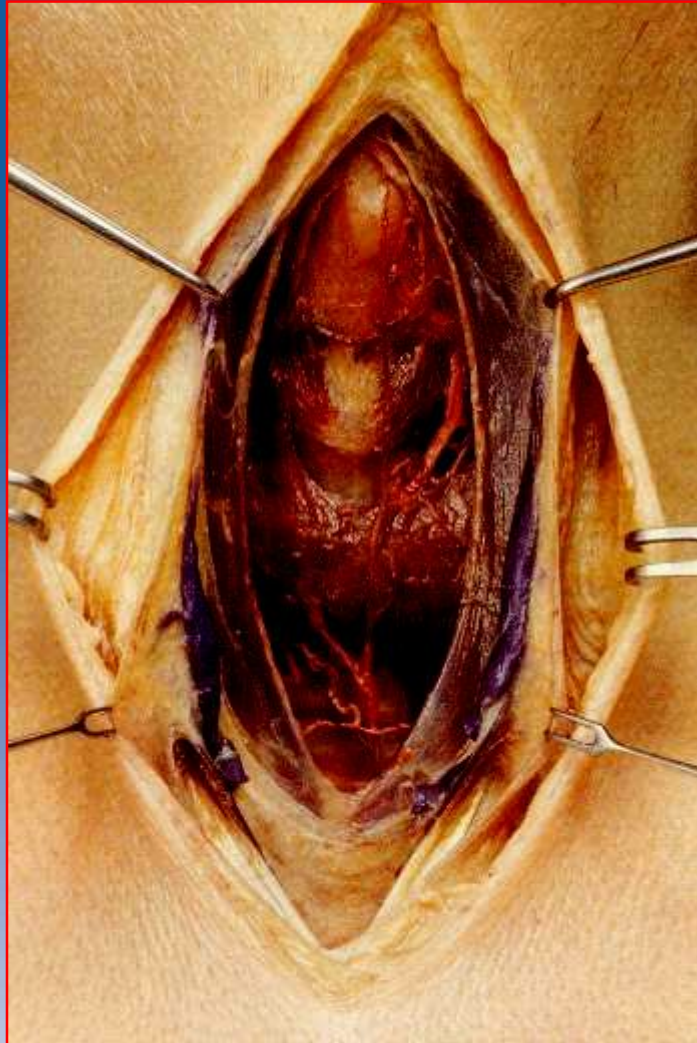
TRACHEOTOMIA



- fascia colli media

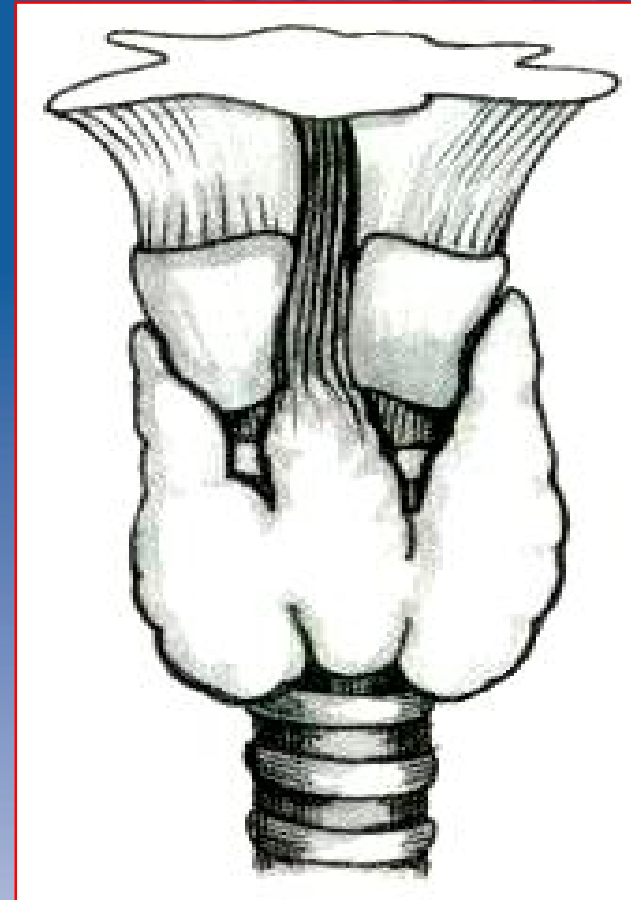
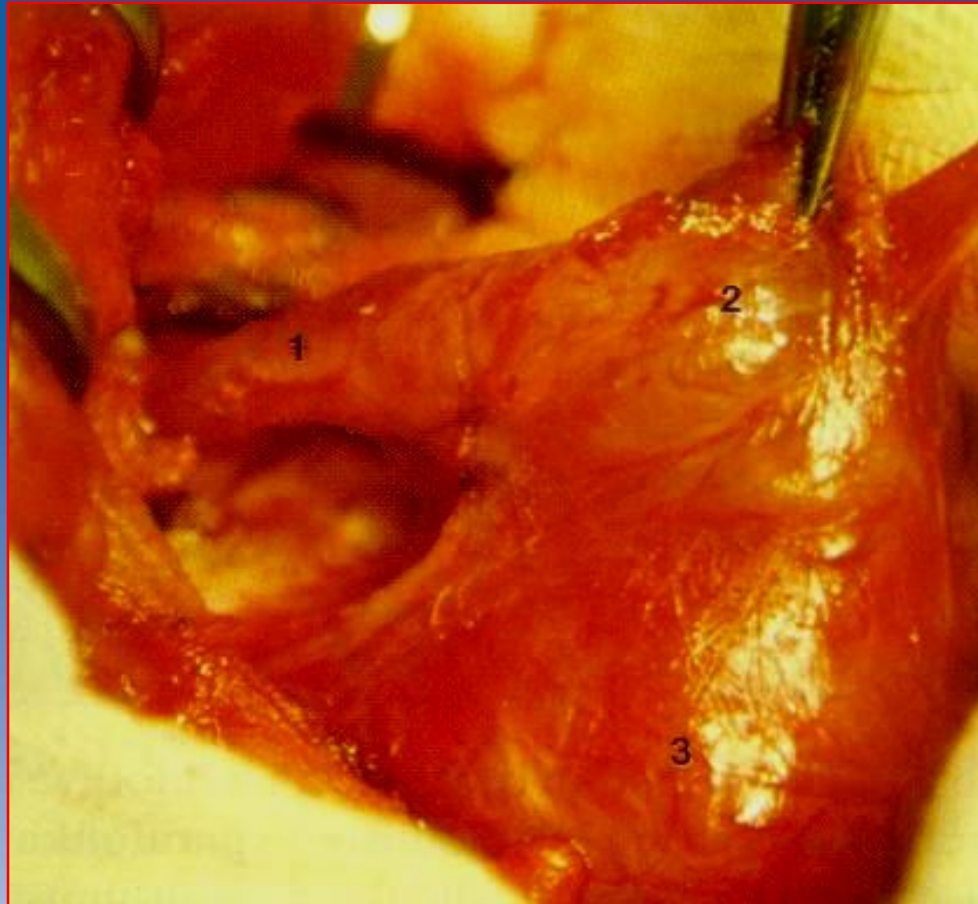
- mm. infrahyoidei/linea alba

TRACHEOTOMIA

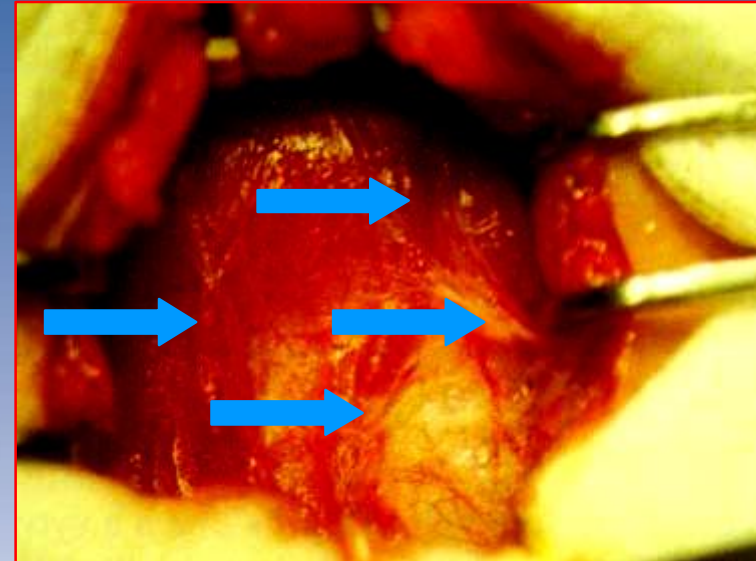
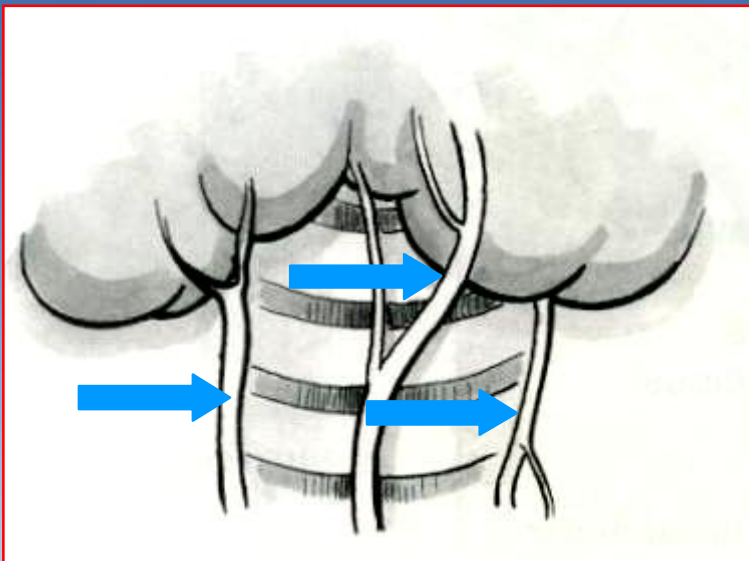
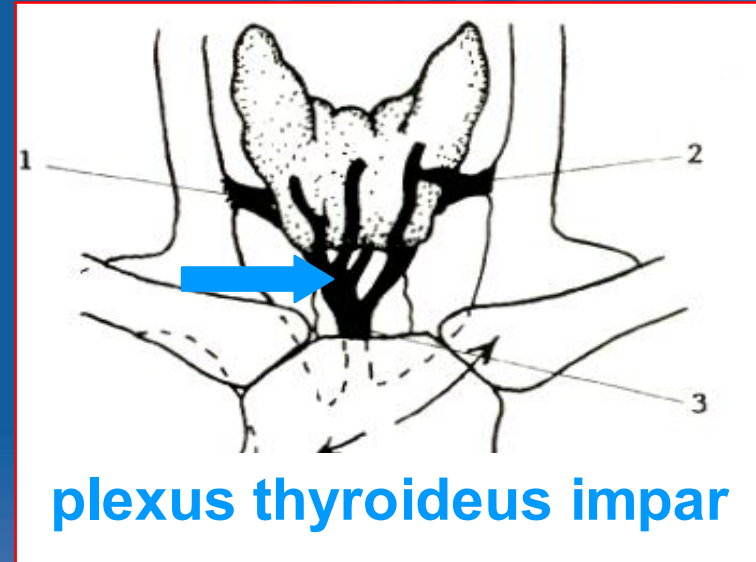
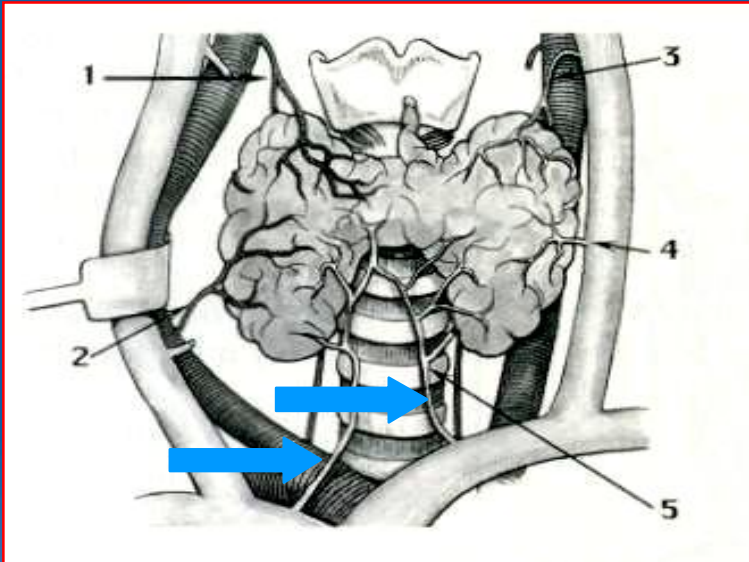


- isthmus gl. thyroideae/
lobus pyramidalis
- vv. thyroideae inferiores
- nodi lymphatici pretracheales
- thymus
- a. thyroidea ima
- truncus brachiocephalicus
(vysoké postavení)

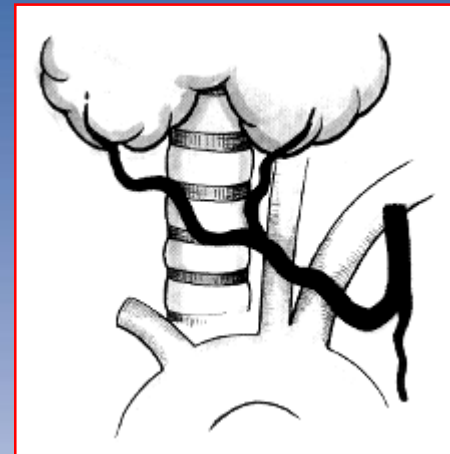
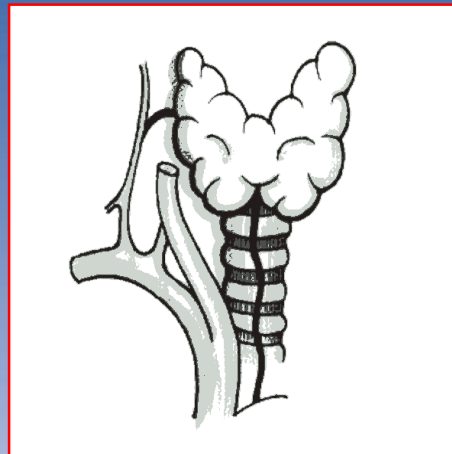
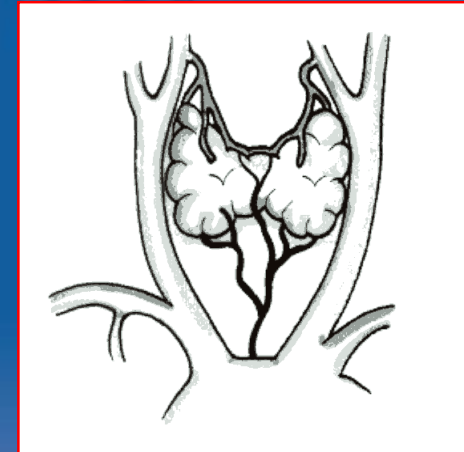
ISTHMUS GL. THYROIDAE ET LOBUS PYRAMIDALIS



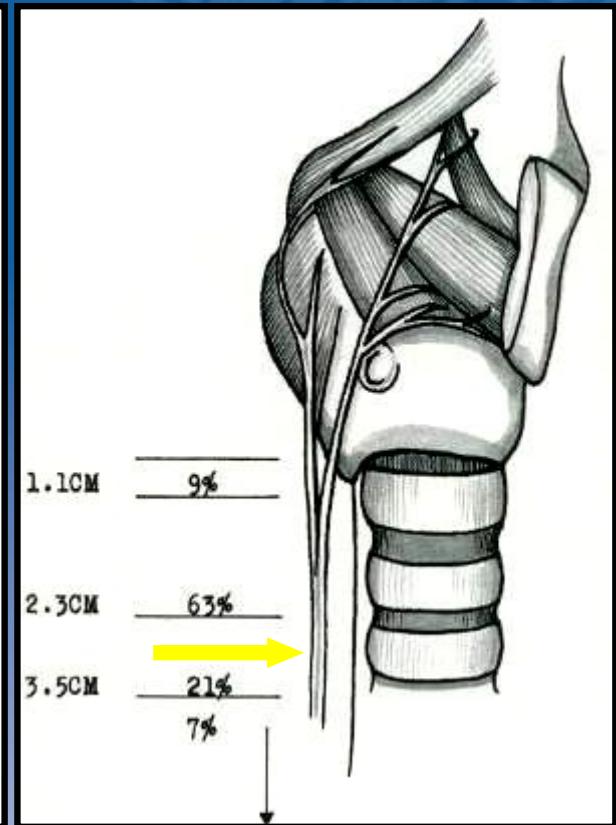
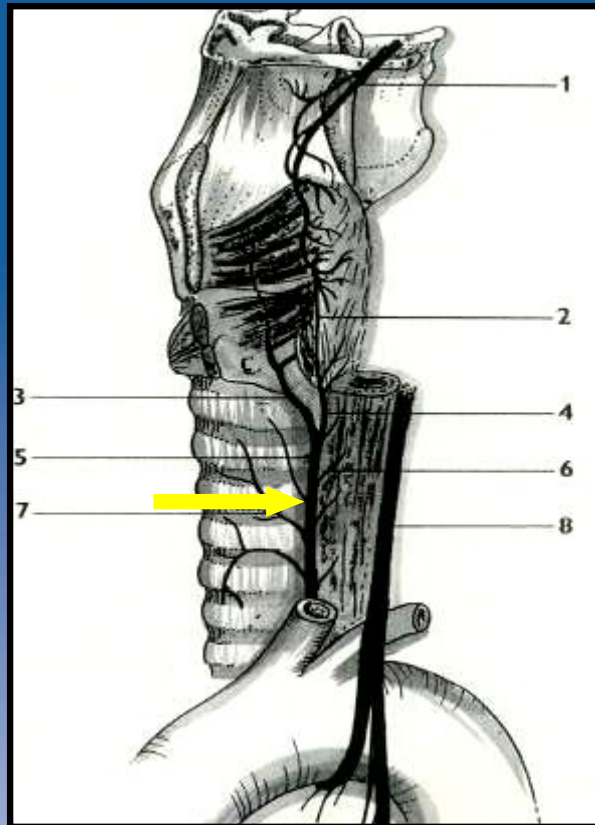
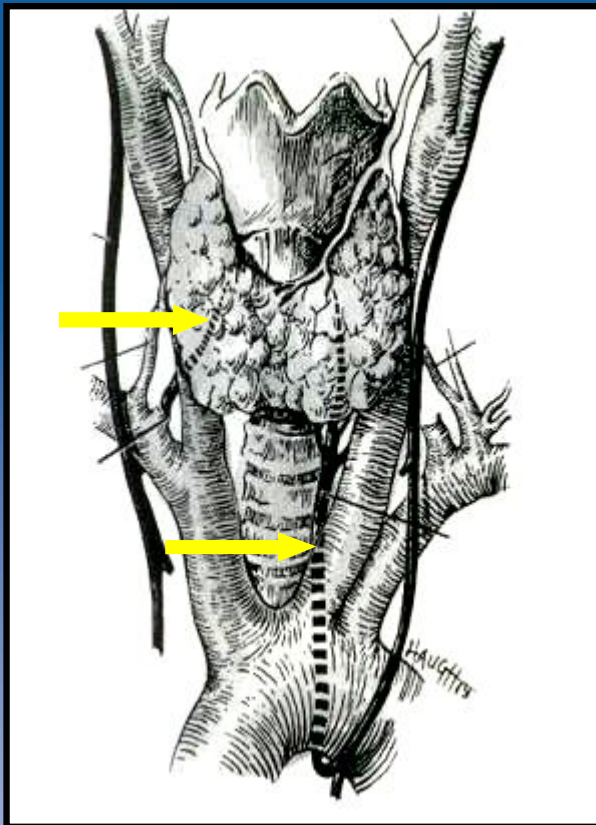
VV. THYROIDEAE



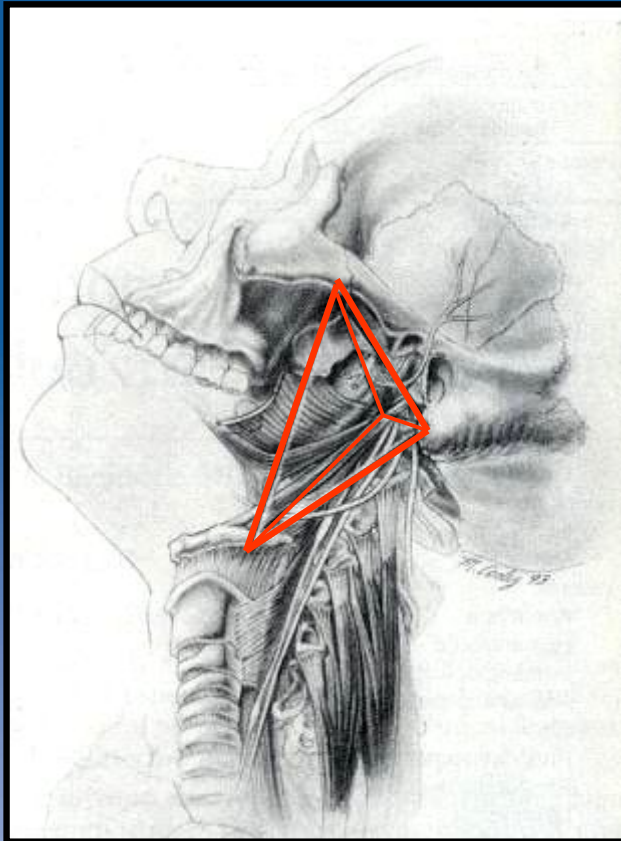
A. THYROIDEA IMA



N. LARYNGEUS RECURRENT



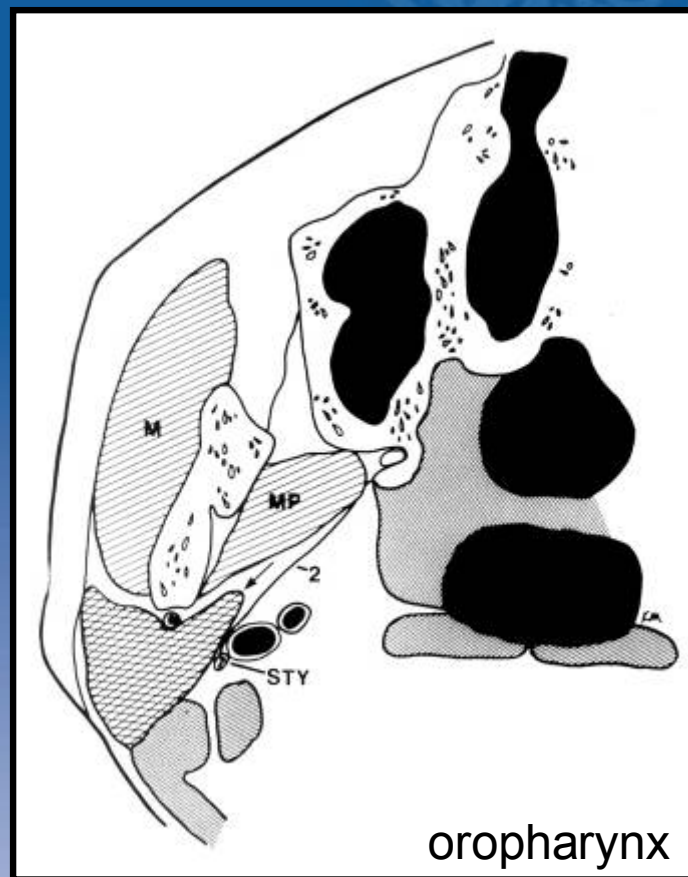
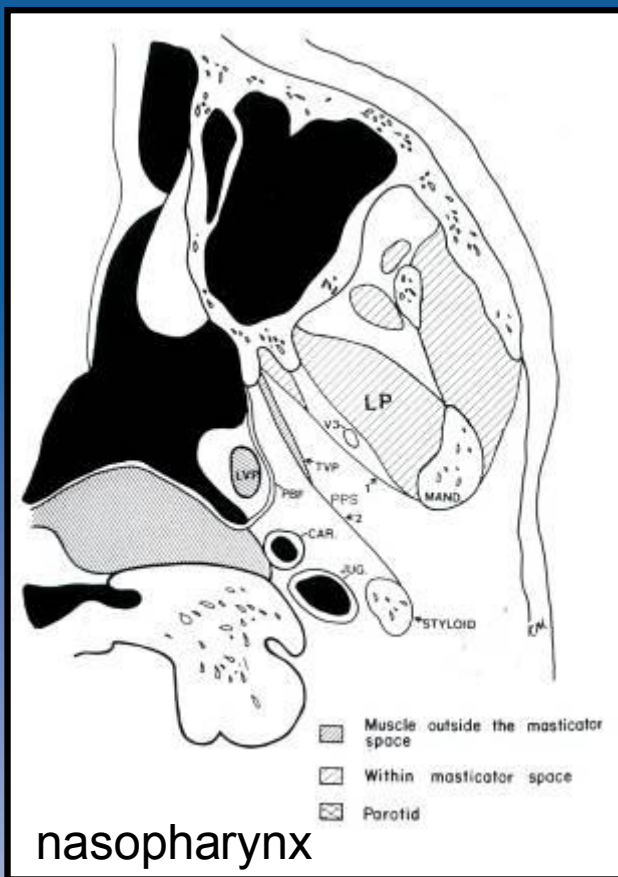
Parapharyngeální prostor



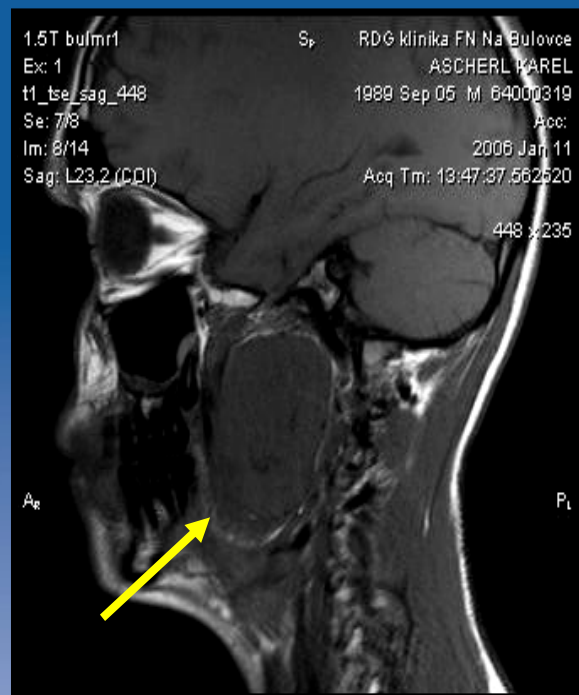
- hluboký krční prostor
- tvar invertované pyramidy se základnou při bazi lební a vrcholem u jazyky
- pre- and retrostyloidní kompartment

(Work and Hybels. Laryngoscope 1974;84:1748-1755.)

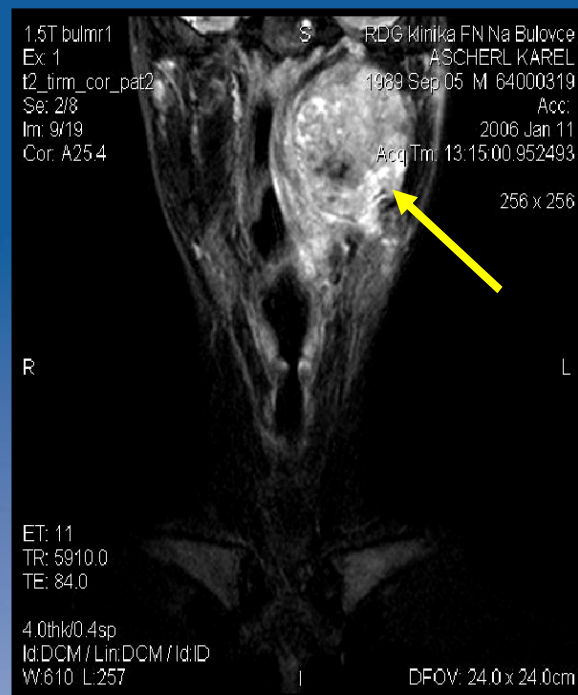
Pre- and retrostyloidní kompartment



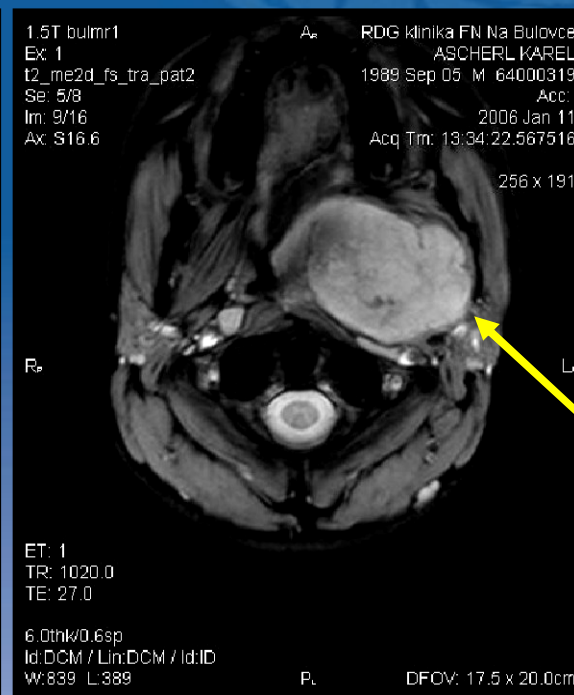
MRI - Pleomorfní adenom



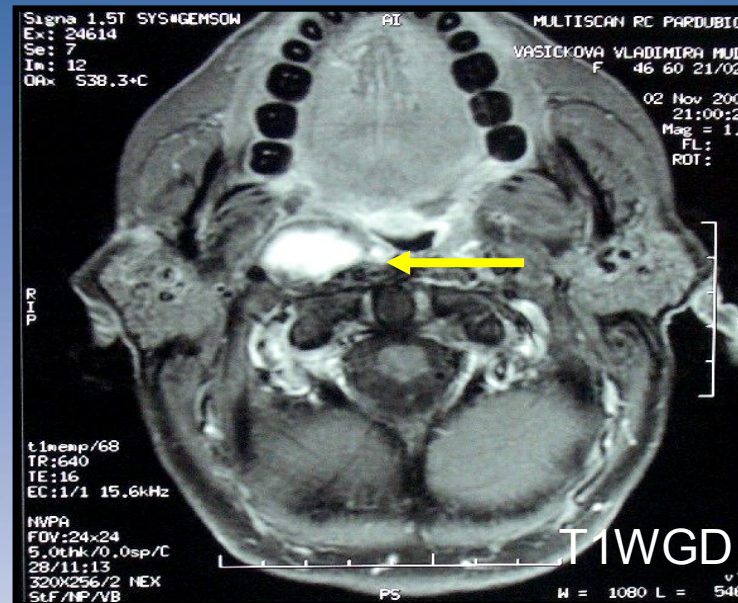
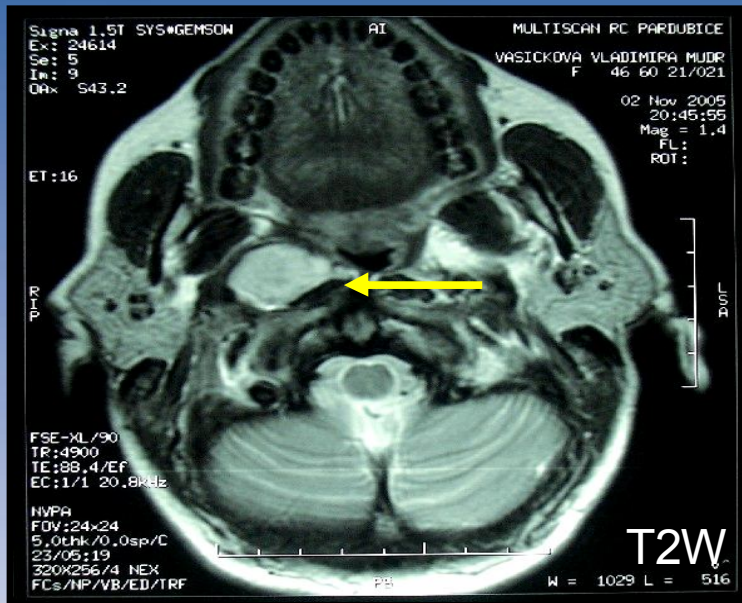
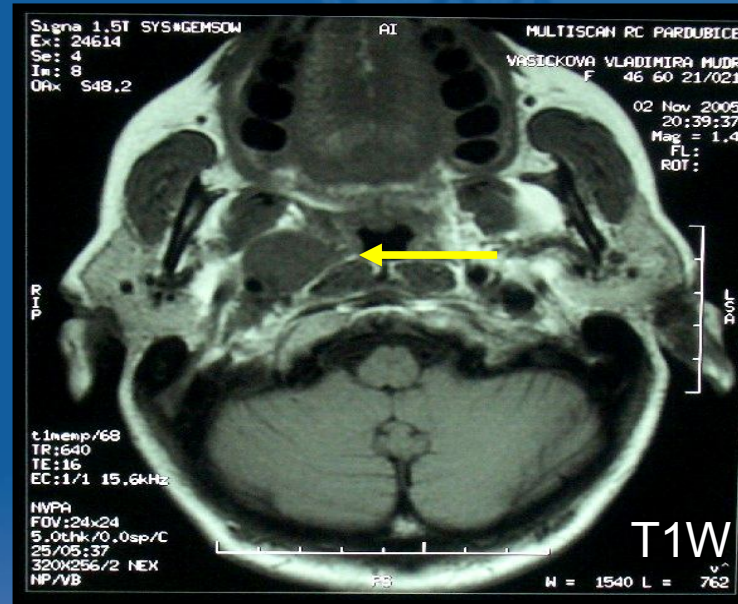
T1W



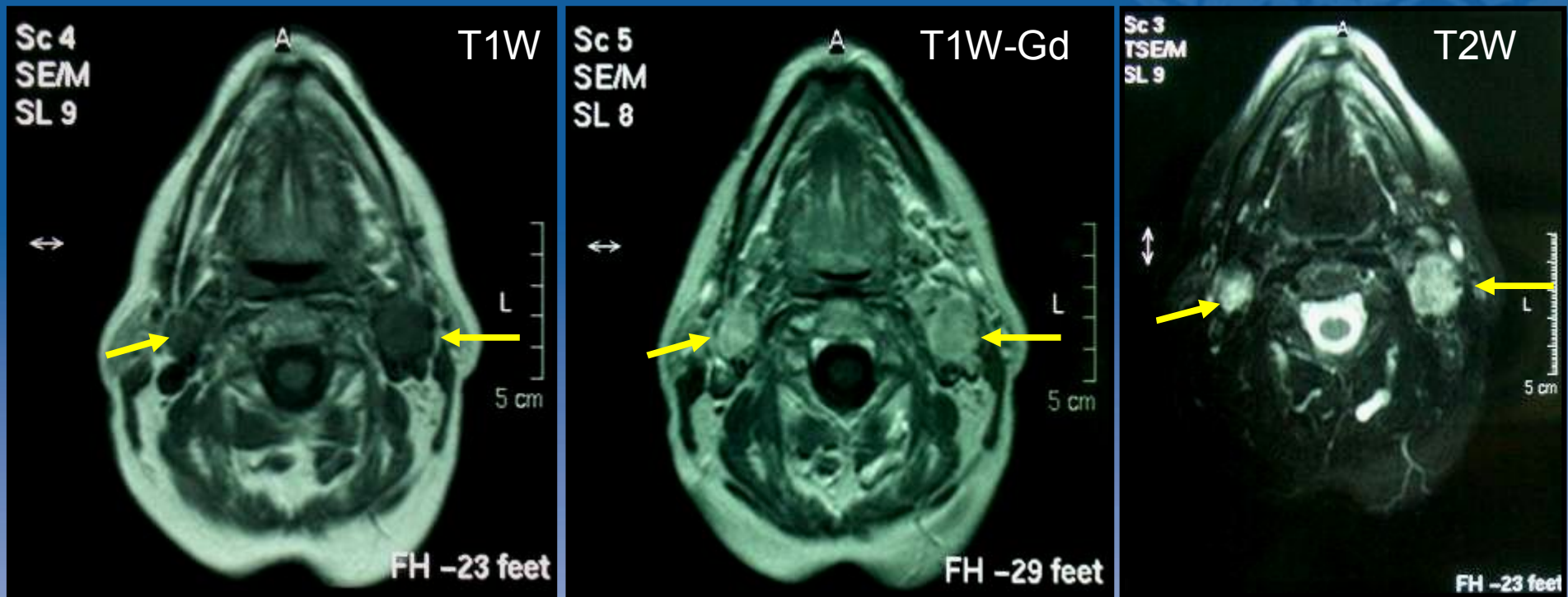
T1WGD



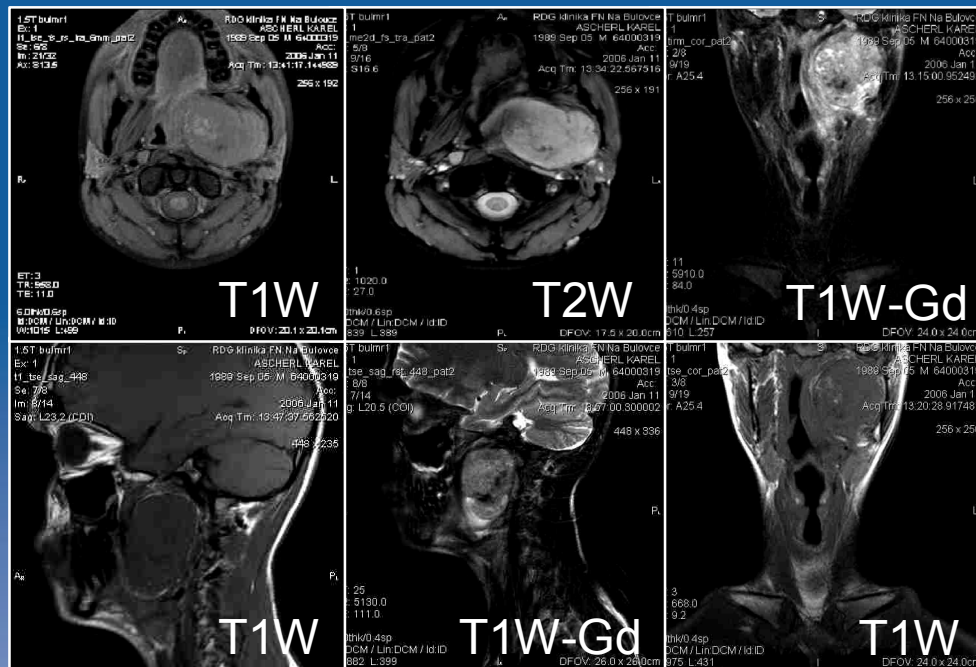
T2W



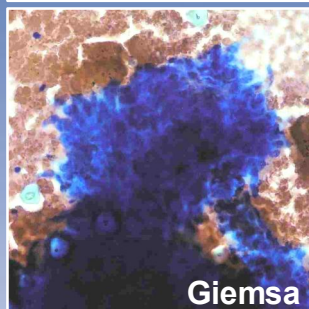
MRI - Paragangliom



TO-TC PŘÍSTUP

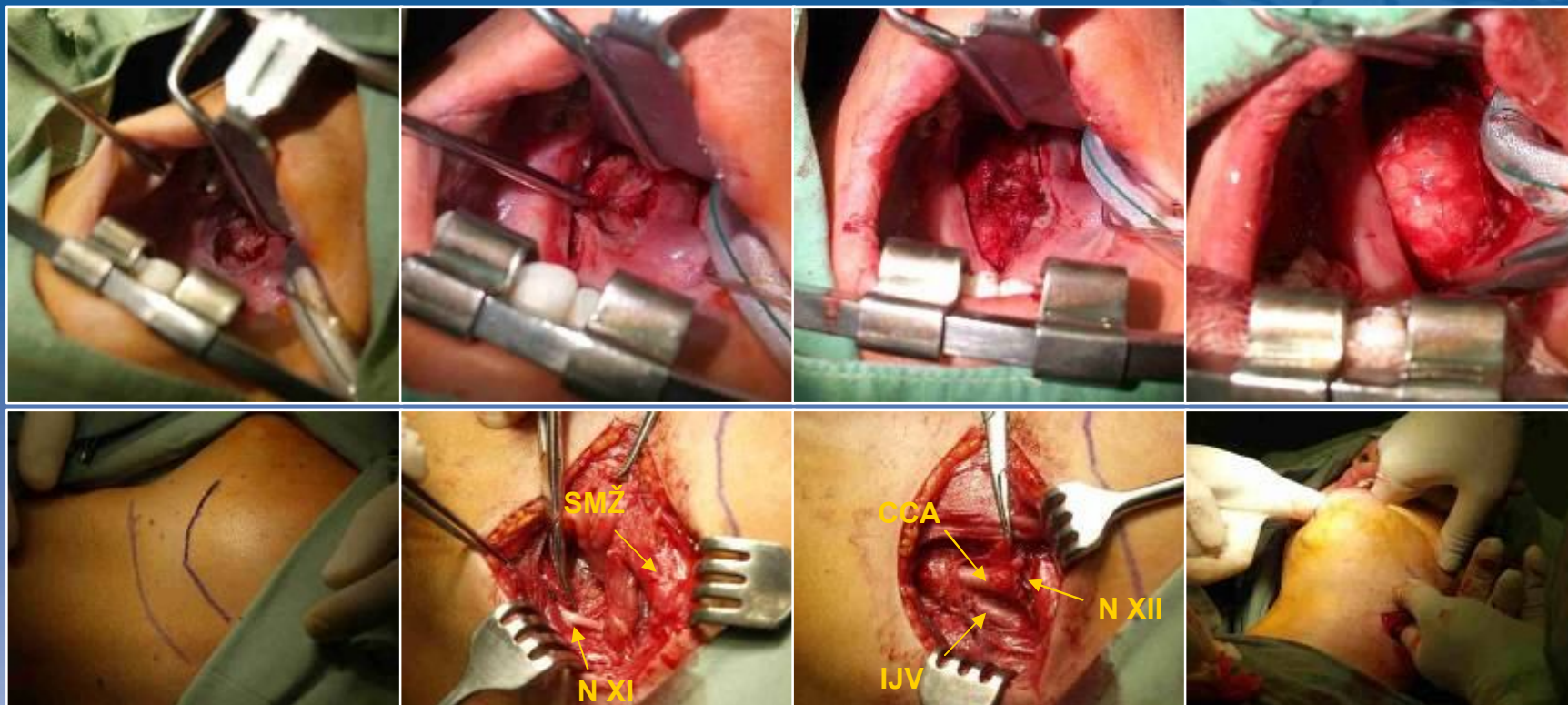


M 17 let
ankylostoma, bolest
anamnéza: 1 měsíc
vyklenutí oropharyngu
TE, krvácení
TO bps (jinde) - nonDG



MRI+FNA-C:
pleomorfni adenom malé slinné žlázy

TO-TC PŘÍSTUP



radikální TO-TC exstirpace

TO-TC PŘÍSTUP



pleomorfni adenom