

# CT a MR mozku, hlavy a páteře

J. Nekula, T. Jonszta

- Anatomie
- Interaktivní mozek [upol.cz](http://upol.cz)
- J.Žižka:Kurzy MR, 2009 MR anatomie  
CNS


Interaktivní CD - mozek - Windows Internet Explorer

http://www.upol.cz/fileadmin/user\_upload/LF-kliniky/normalni-anatomie/atlas-mozku/index.htm

Obíbené položky HOGAN CHESS Novinky.cz - nejčtenější z... Google Operabase Strava Centrum VOLNÝ.cz

Interaktivní CD - mozek Stránka

# Atlas mozku




## Interaktivní atlas řezů mozku a povrchových struktur

O atlasu

Autoři: Kateřina Kikalová, Boris Pauček, Miroslav Kutal

Programová realizace: Milan Hejman, Petr Hejman



Podpořeno grantem FRVŠ 447 / 2006



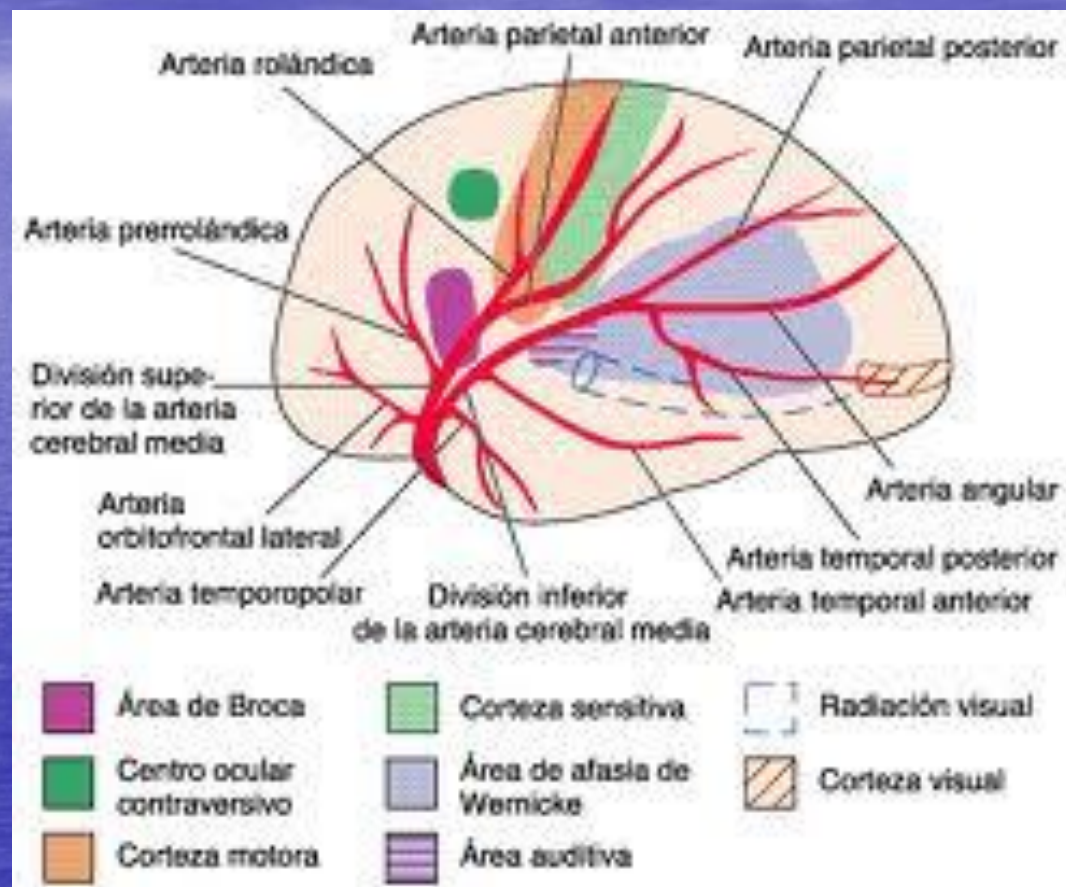
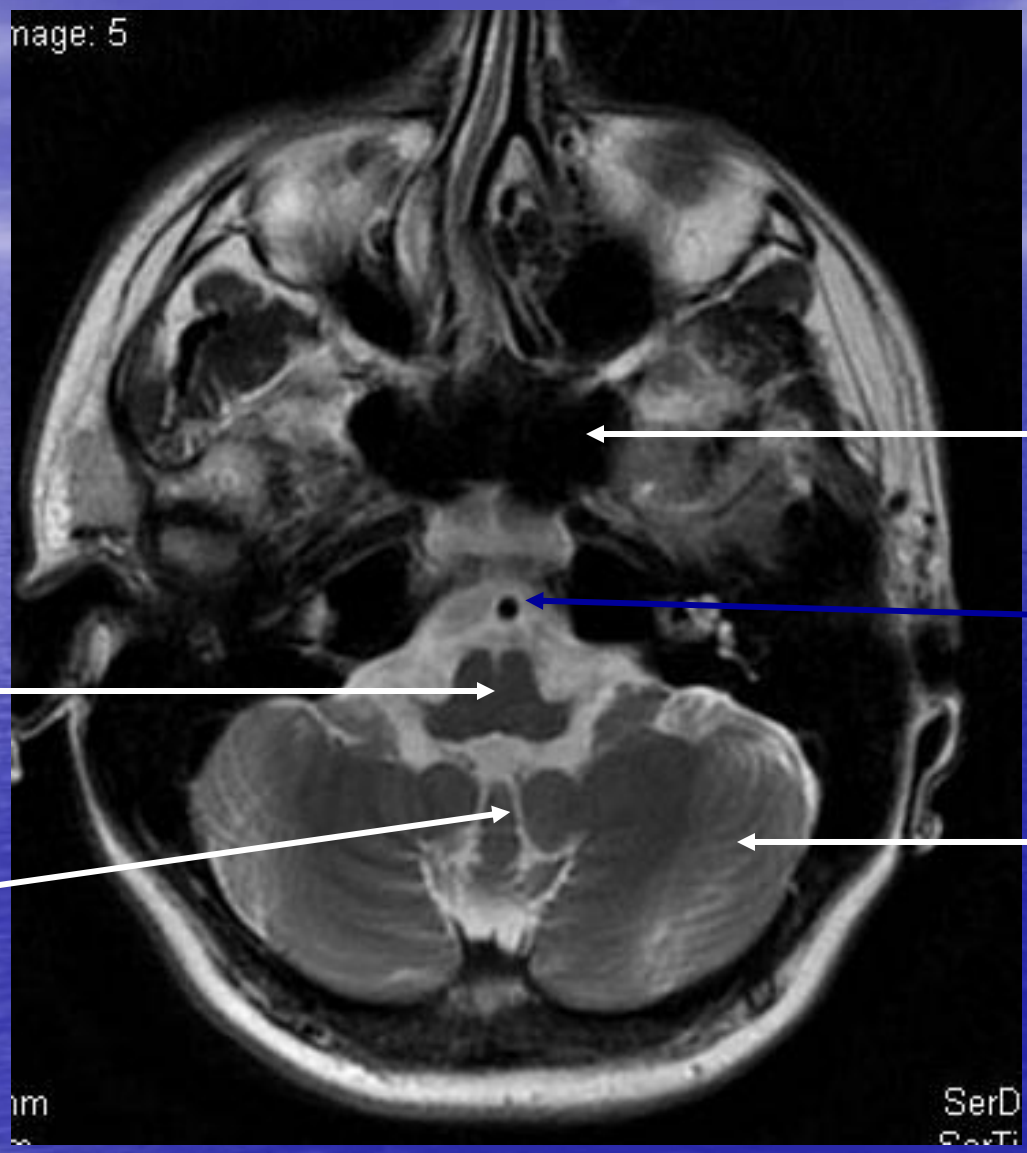


Image: 5



s.sferoidealis

a.bazilaris

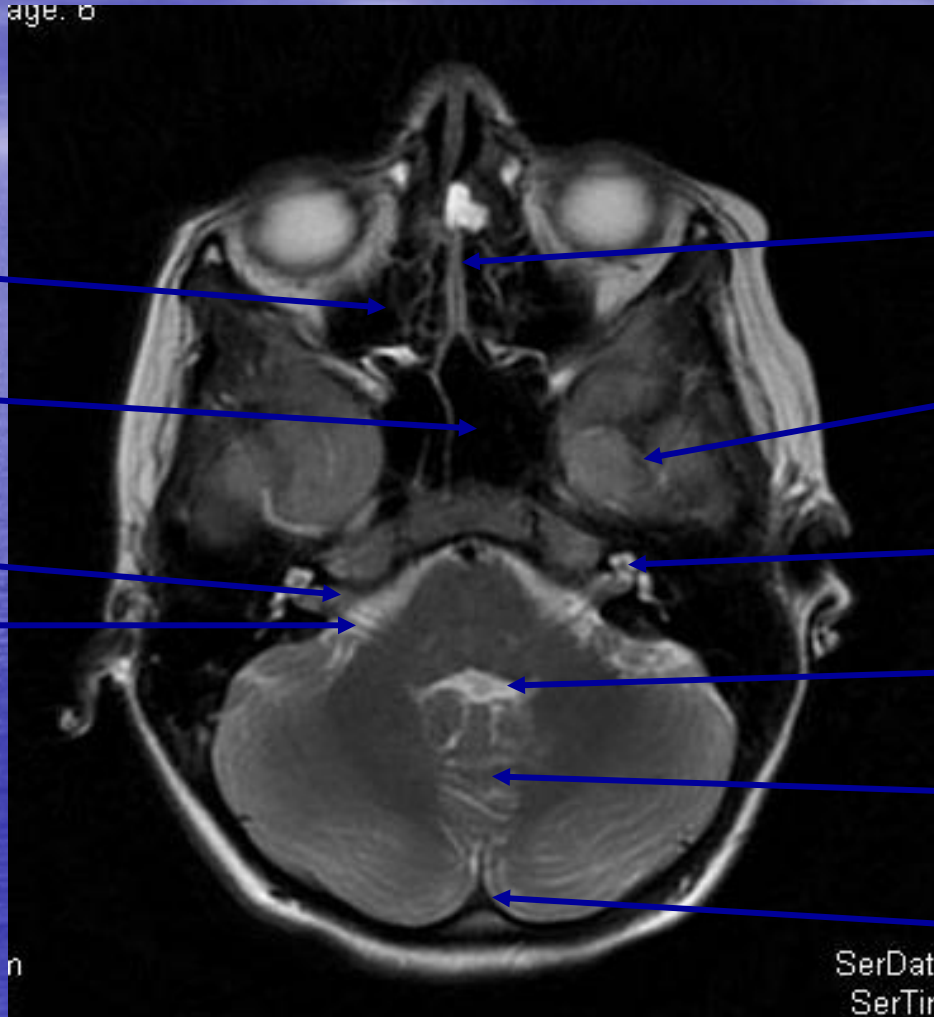
Prodloužená mícha

Vermis cerebelli

Hemisféra mozečku

mm

SerD  
SaxTi



Sinus maxillaris

Sinus sfenoidealis

Meatus acusticus int  
VII a VIII.nn.

Septum nasi

Temporální lalok

cochlea

IV komora

Vermis mozečku

Crista occip.interna

age. 6

n

SerDate  
SerTim

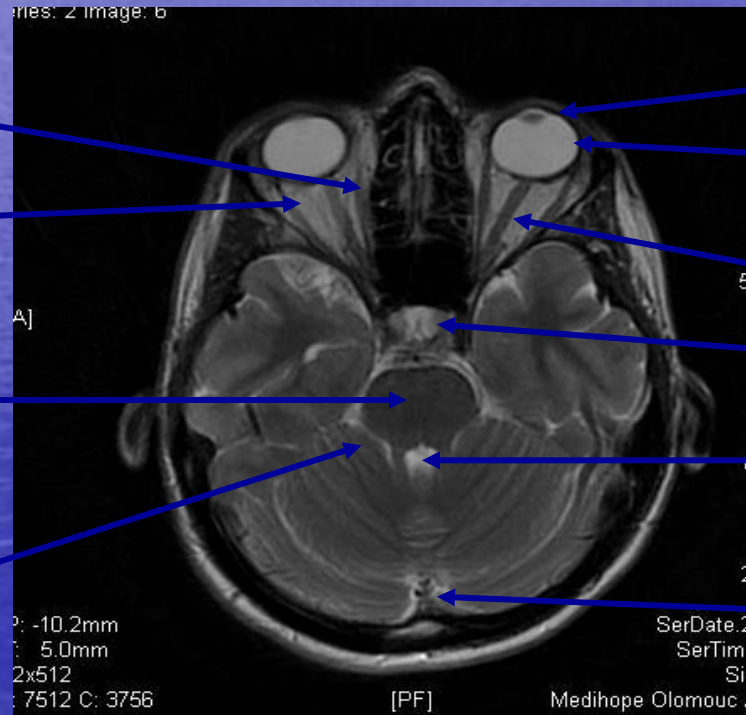


m.rectus medialis

m.rectus lateralis

Pons Varoli

Cisterna ambiens



čočka

Oční bulbus

n.optikus

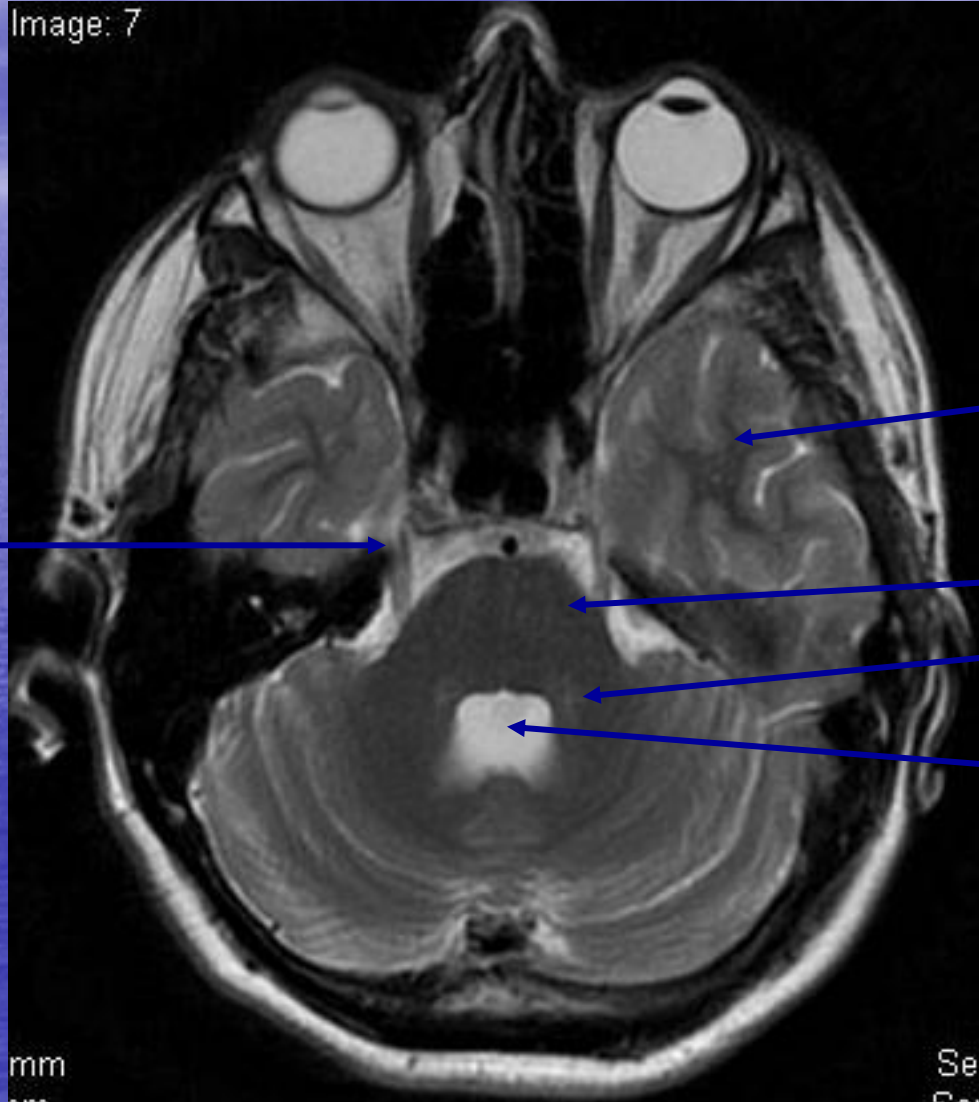
hypofýza

IV.komora

Confluens sinuum

Image: 7

n.trigeminus



Temporální lalok

Pedunculli cerebelli

c.ambiens

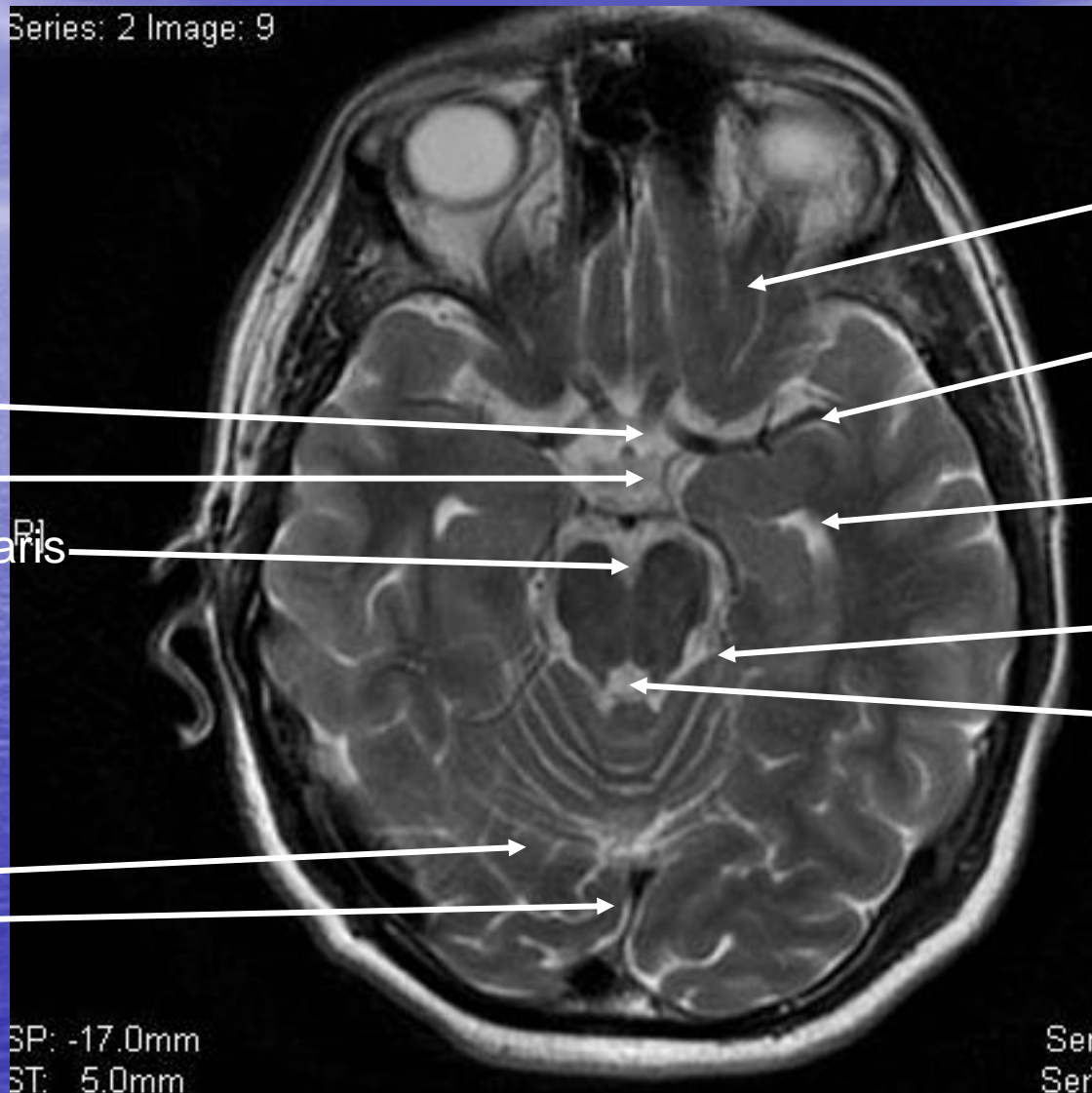
IV.komora

mm

Ser  
Soc



Series: 2 Image: 9



F lalok-gyrus rectus

a.-cerebri media

Temporální roh

Cisterna ambiens

c.quadrigenina

chiasma

hypofýza

c.interpeduncularis

O lalok

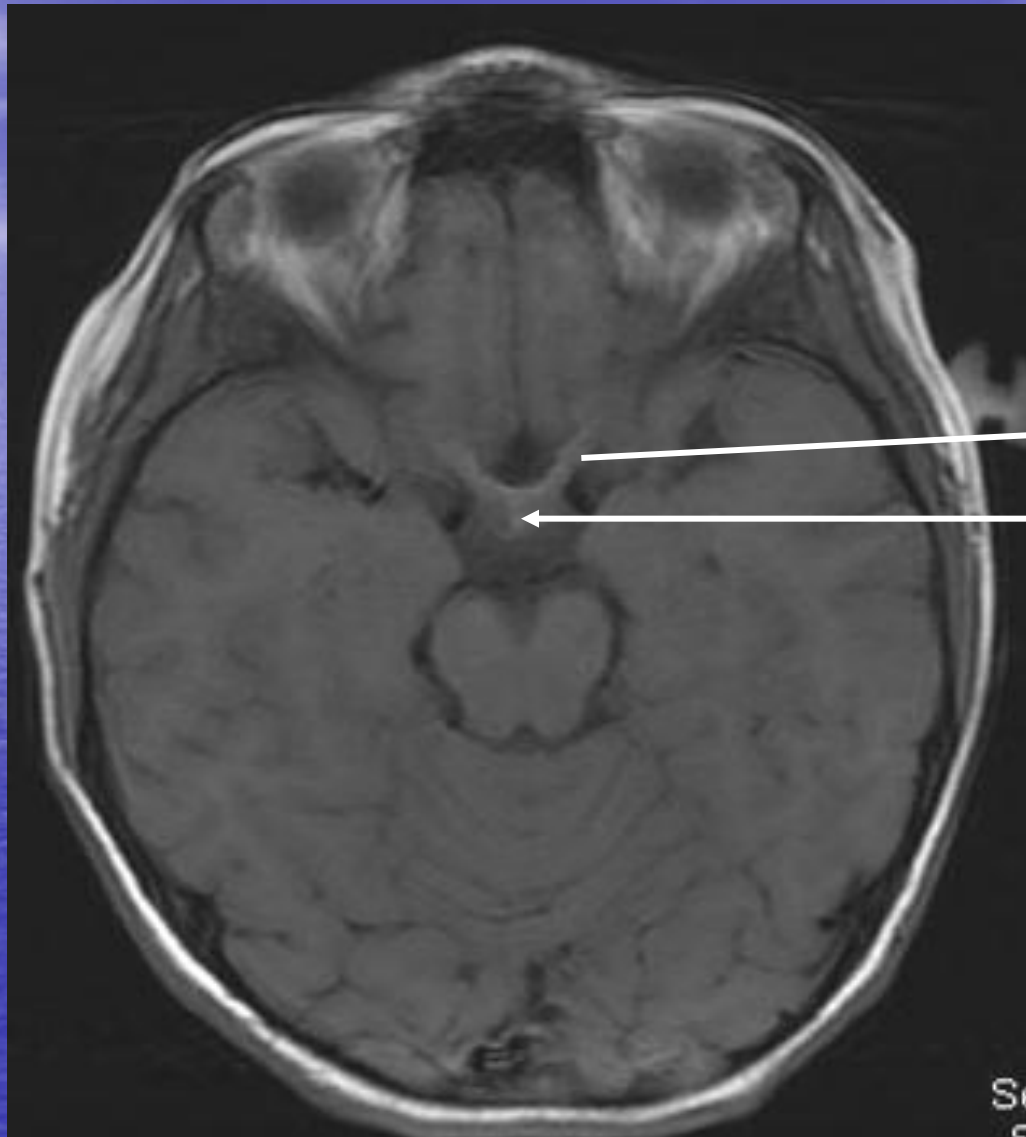
Sinus rectus

SP: -17.0mm

ST: 5.0mm

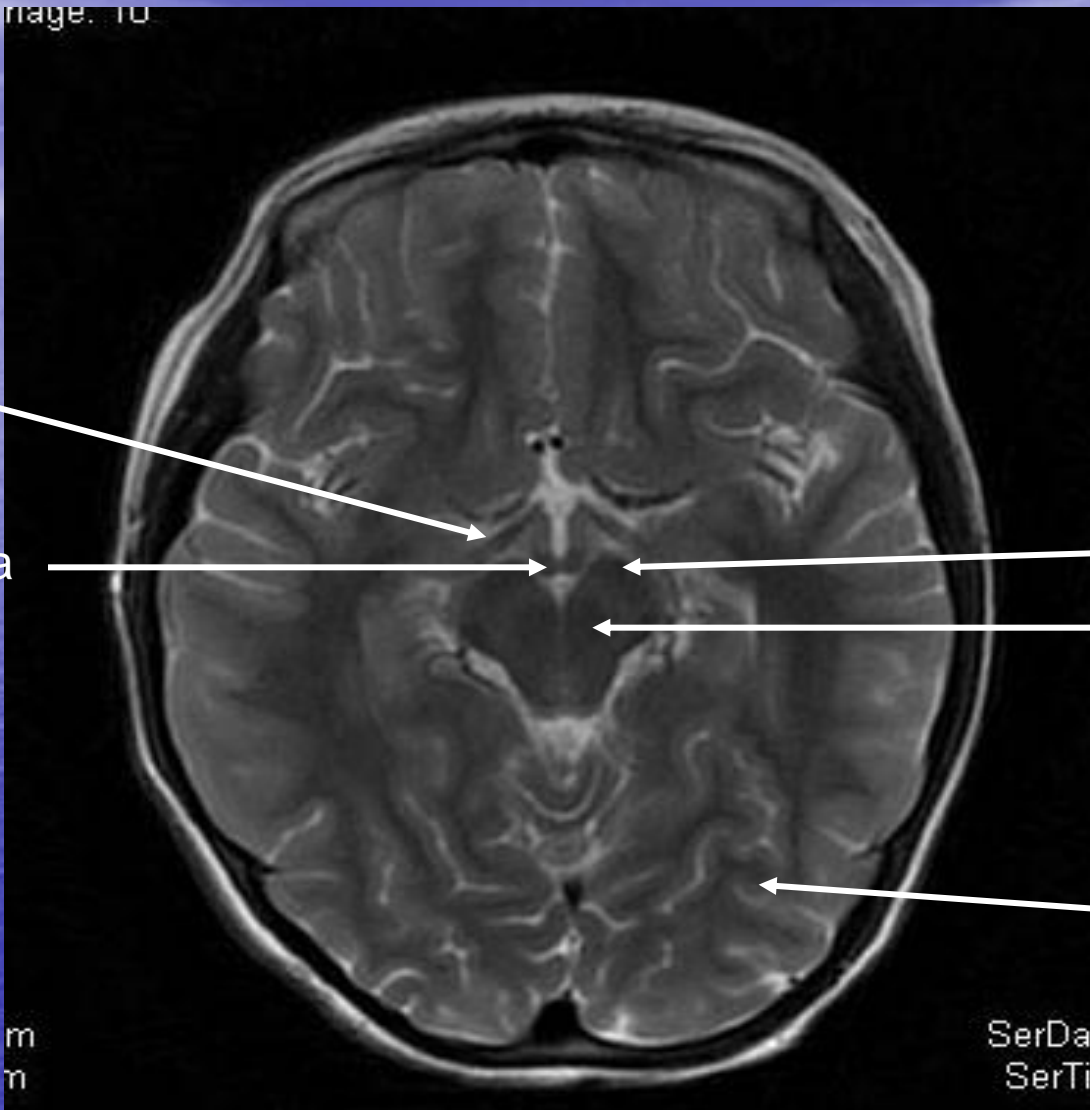
Ser1

Ser1



n.optikus

Chiasma optikum



Tractus opticus

Corpora mamilaria

Nucleus niger

Nucleus ruber

O lalok

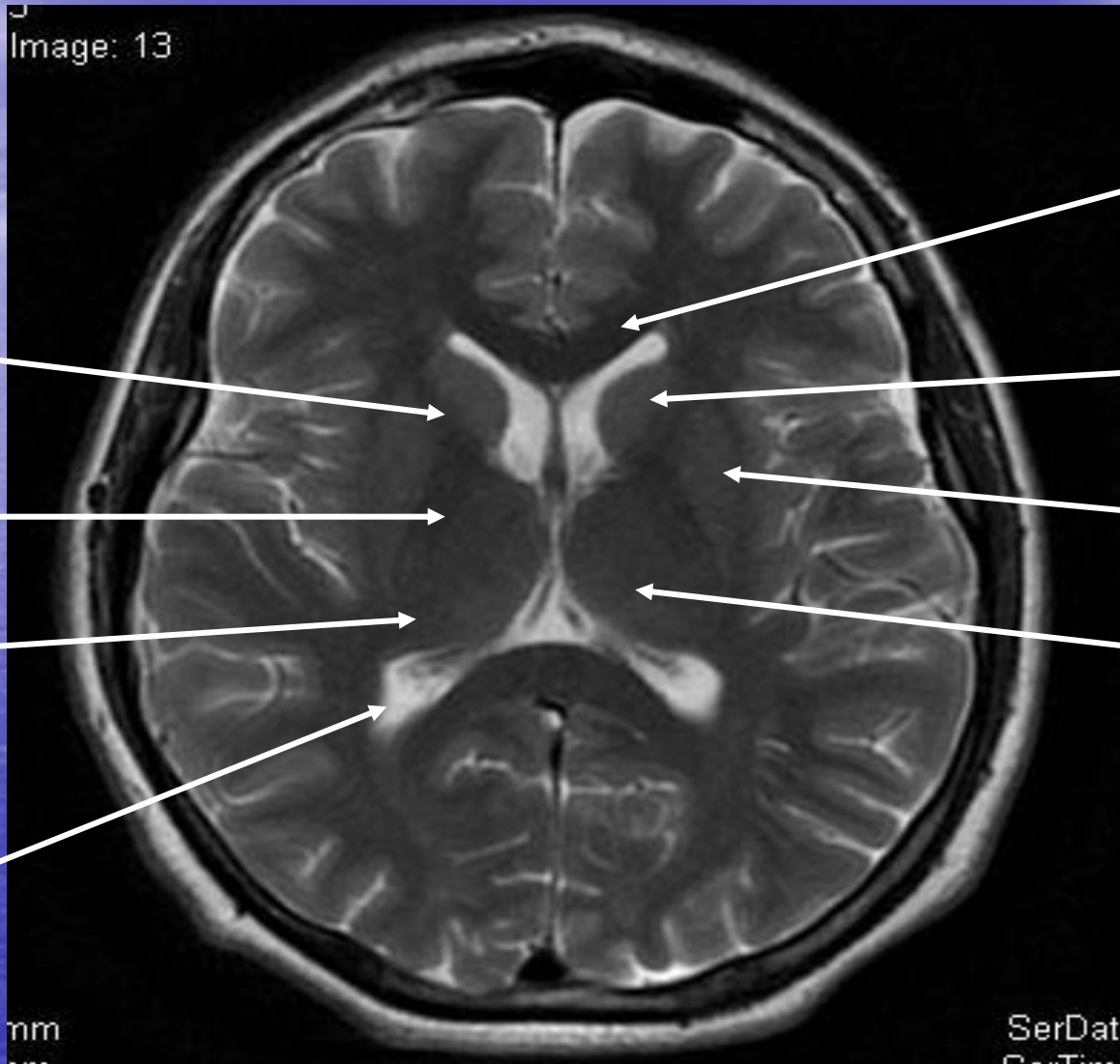
mage. 10

m  
n

SerDa  
SerTi



# KAPSULA INTERNA a BAZÁLNÍ GANGLIA



Splenium c.callosi

Caput n.caudati

Putamen

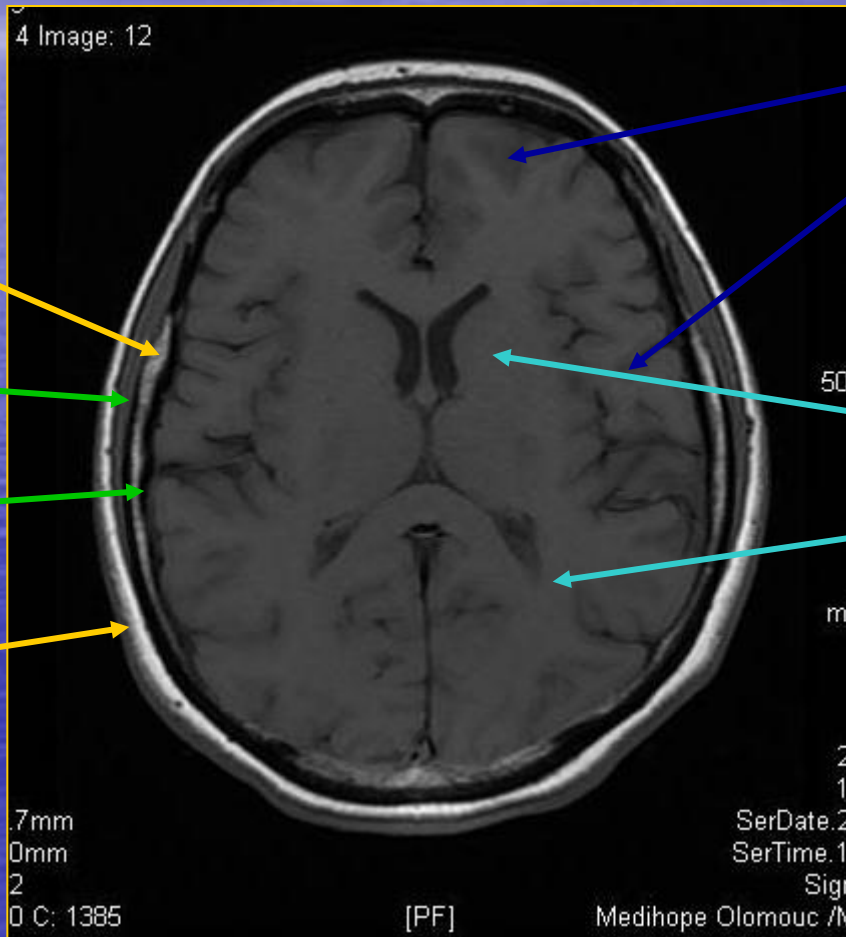
Talamus

Přední třetina

Střední

Zadní

O roh



Tuk v diploe

Lamina externa

Lamina interna

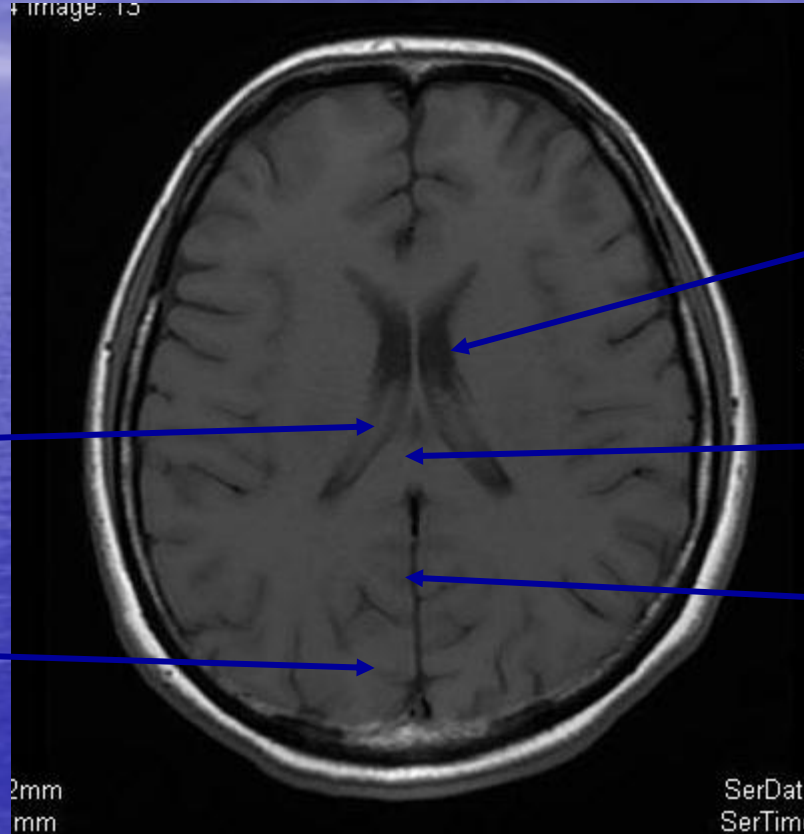
Podkožní tuk

Gyry(šedá hmota)

Centrum semiovale

(Bílá hmota)

Image: 15



Plexus chorioideus

cuneus

Cella media

Pariet. Postr komora.

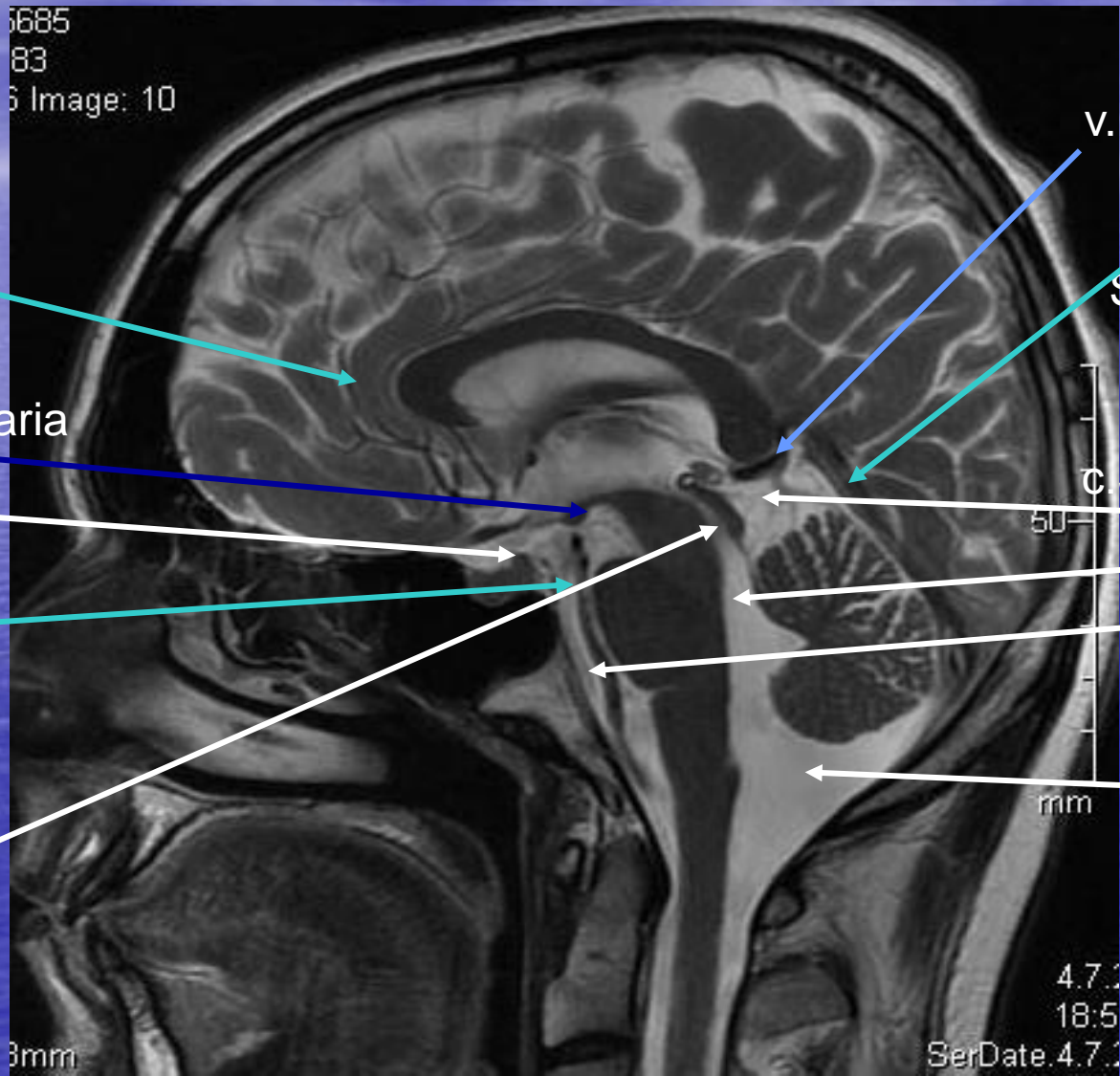
Splenium corp.callos

Falx cerebri

2mm  
mm

SerDate  
SerTime





3685  
83  
Image: 10

v.Magna Galeni

A..Cerebri  
anterior

Sinus rectus

Corpora mamilaria

Supraselární c

c. Supravermiáln

a.basilaris

IV.komora

c.basalis

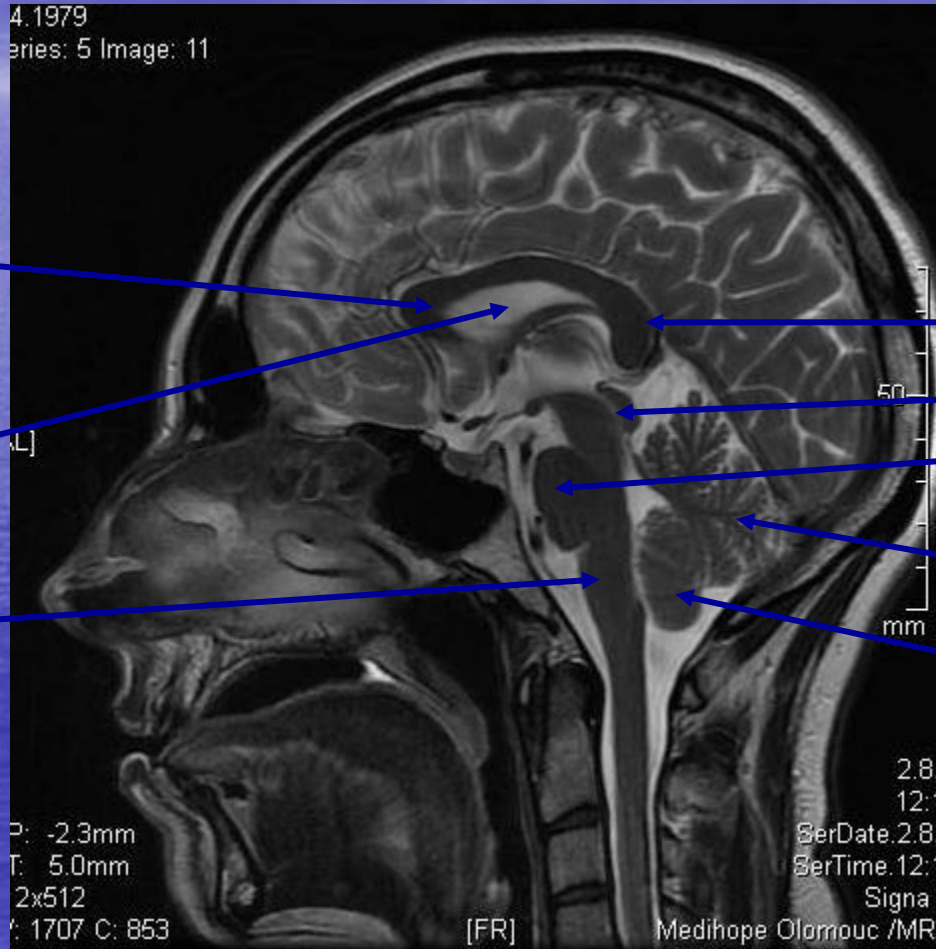
mokovod

C. magna

3mm

mm

4.7  
18.5  
SerDate.4.7



Genu c.callosi

Septum  
pellucidum

Med.oblongata

Splenum c.callosi

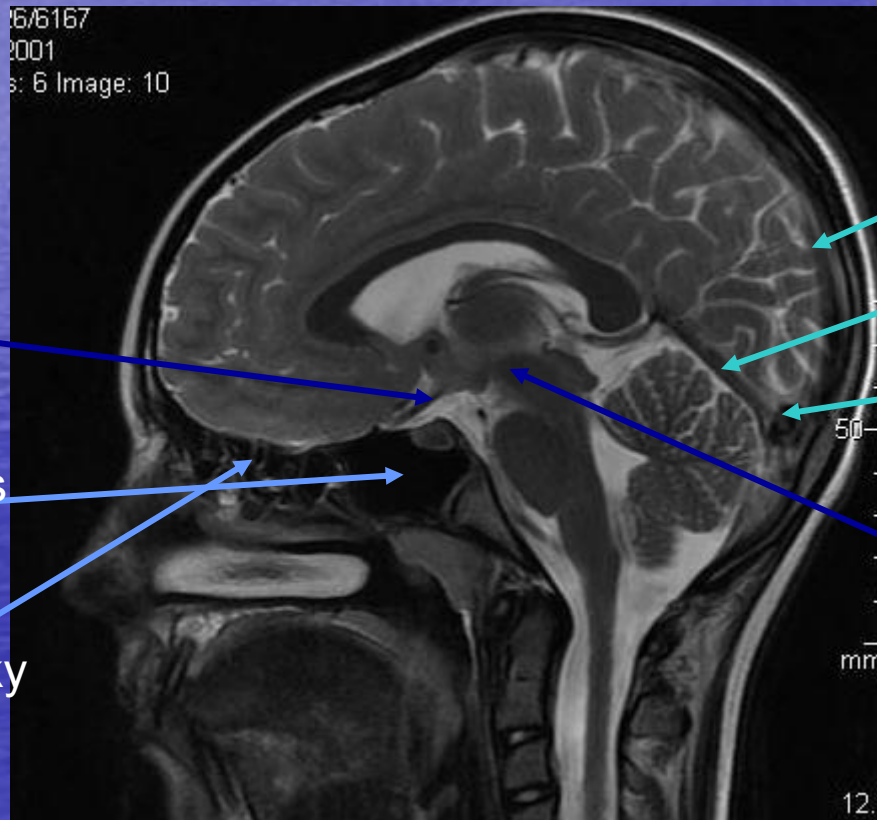
lam.Quadrigemina

Pons Varoli

mozeček

Tonzila mozečku





s.Sagitalis superior

Sinus rectus

Confluens sinuum

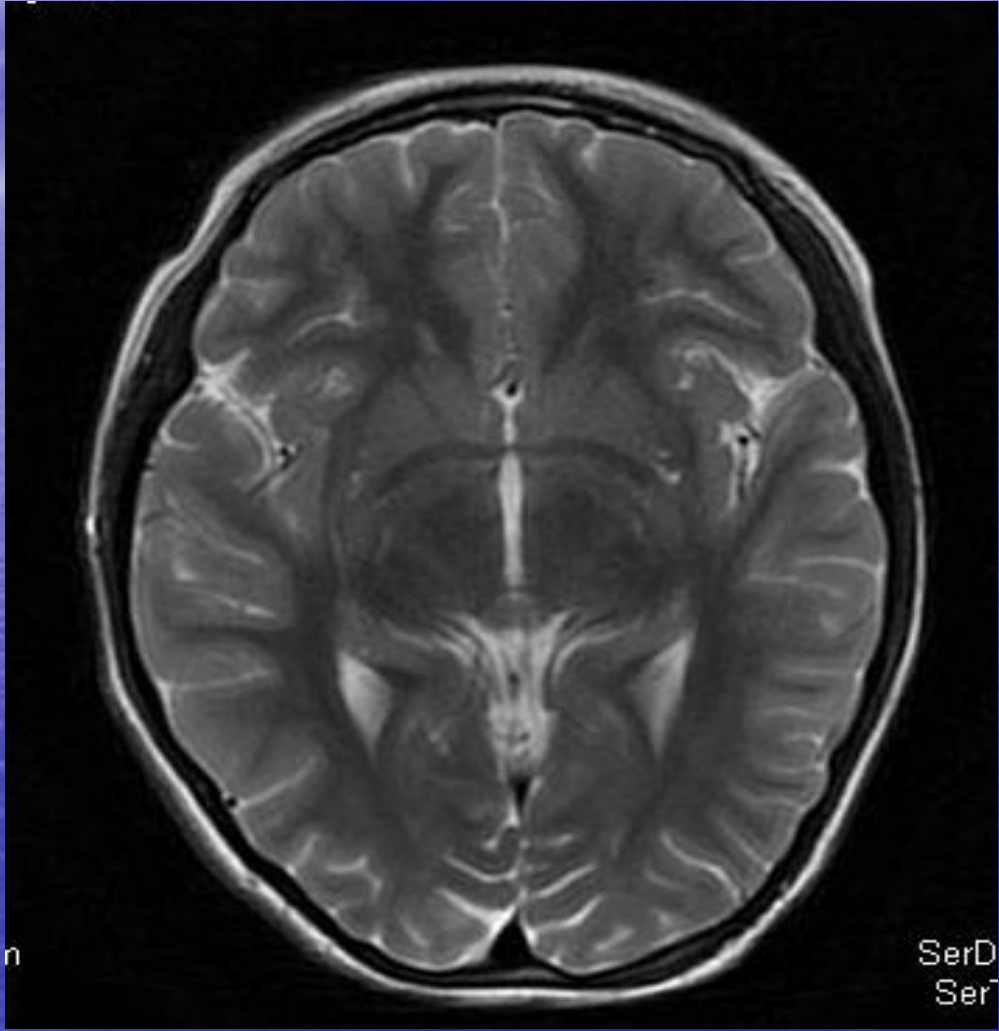
mesencefalon

Nervus opticus

Sinus sfenoidealis

Ethmoideální sklípky

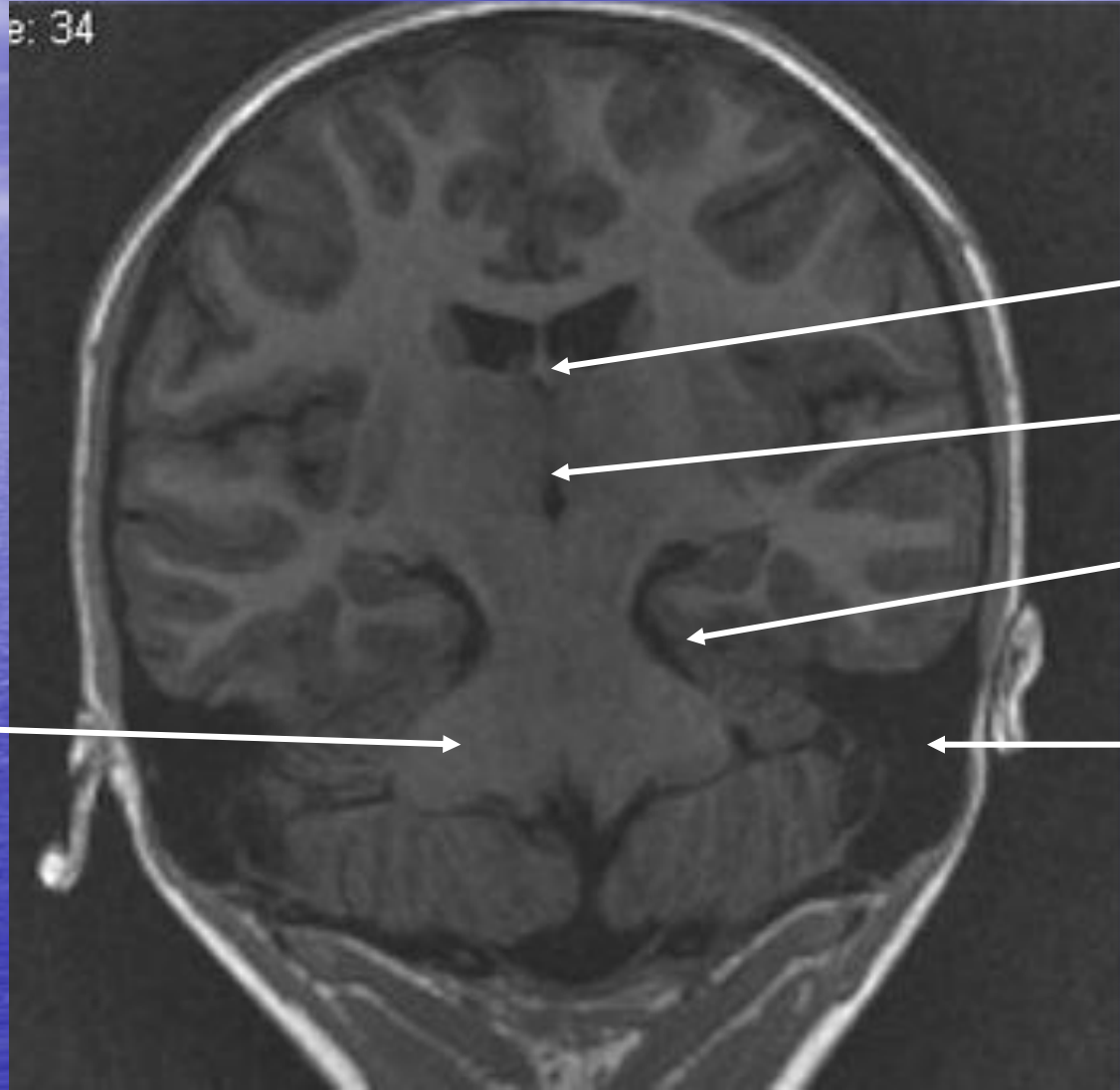




n

SerD  
Ser

e: 34



fornix

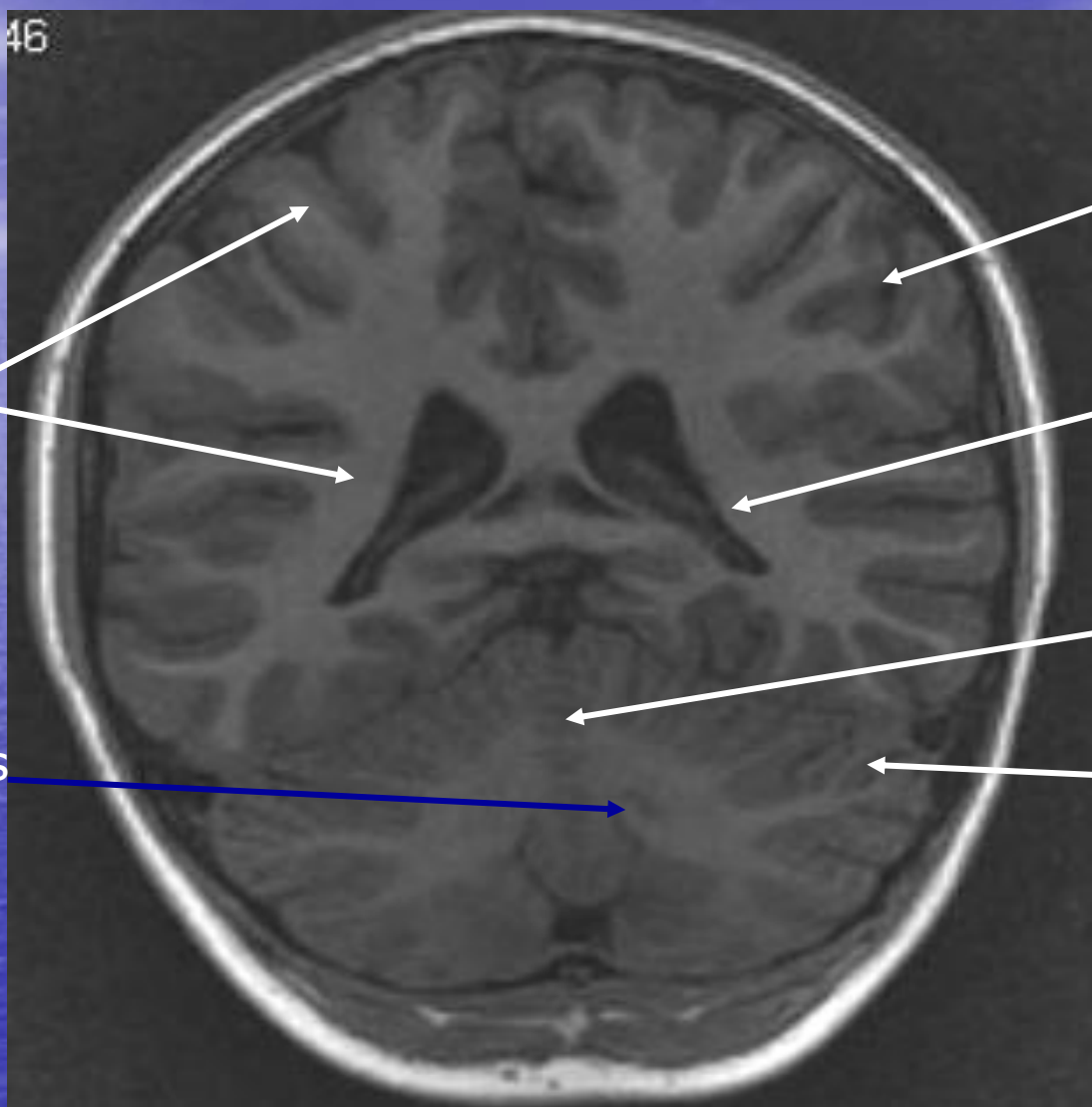
III.komora

amygdala

pedunkuli

mastoid

46



Bílá hmota

Šedá hmota gyry

O roh

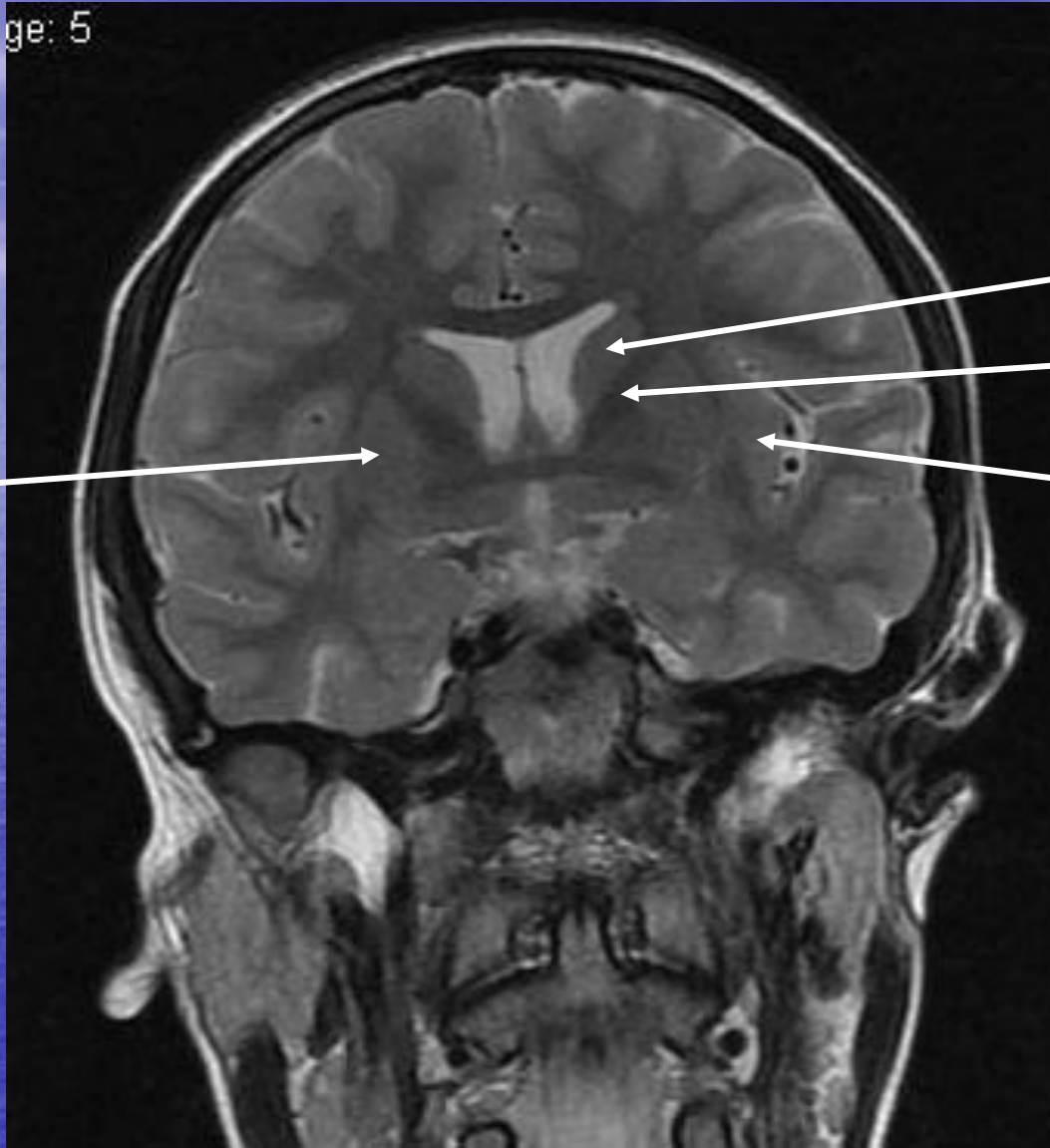
Vermis mozečku

Nucleus dentatus

mozeček



ge: 5

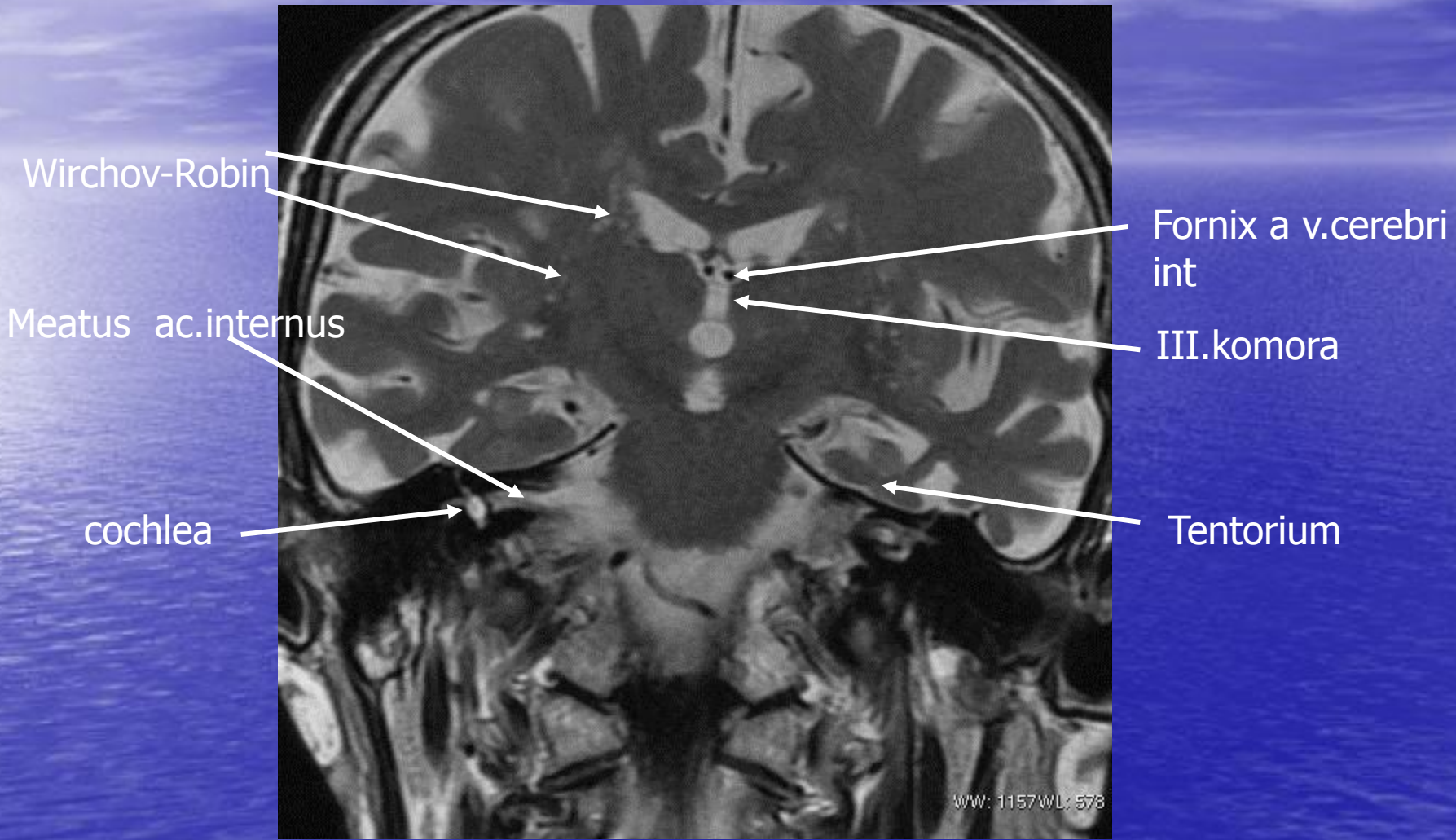


putamen

c.nukl.caudati

Capsula interna

Insula



Wirchow-Robin

Meatus ac.internus

cochlea

Fornix a v.cerebri  
int

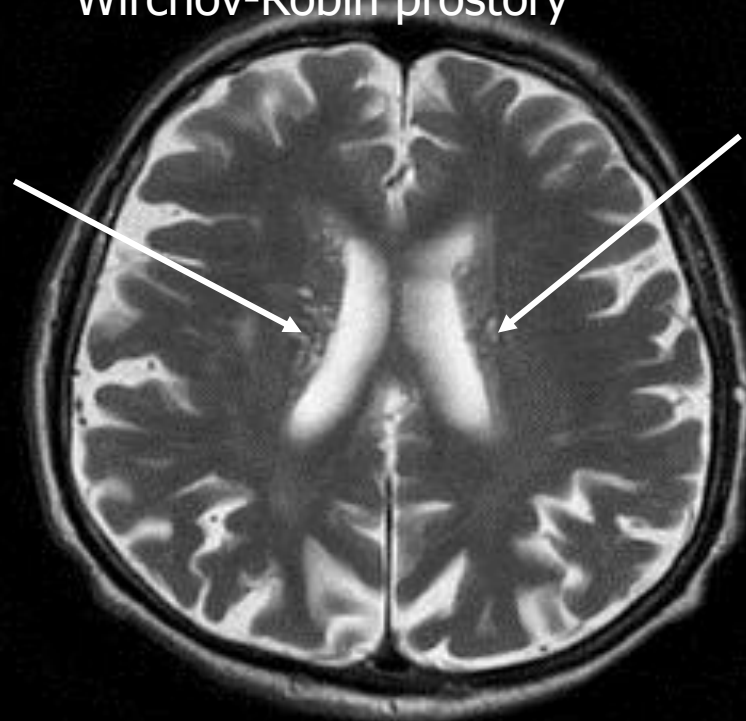
III.komora

Tentorium

WW: 1157WL: 578

T 2 v.o.

Wirchow-Robin prostory

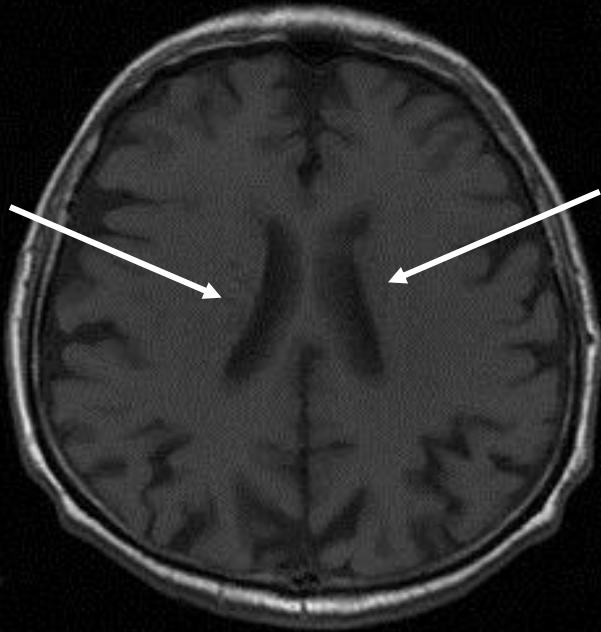


WW: 6899 WL: 3449



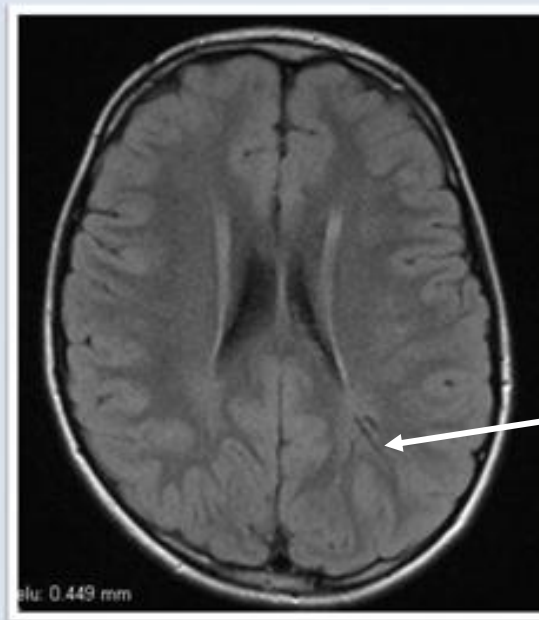
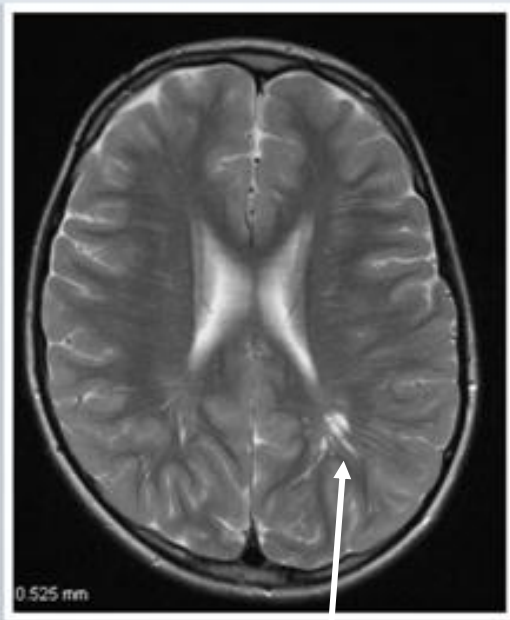
FLAIR

Virchow-Robin prostory



WWW.3177.WL:1588

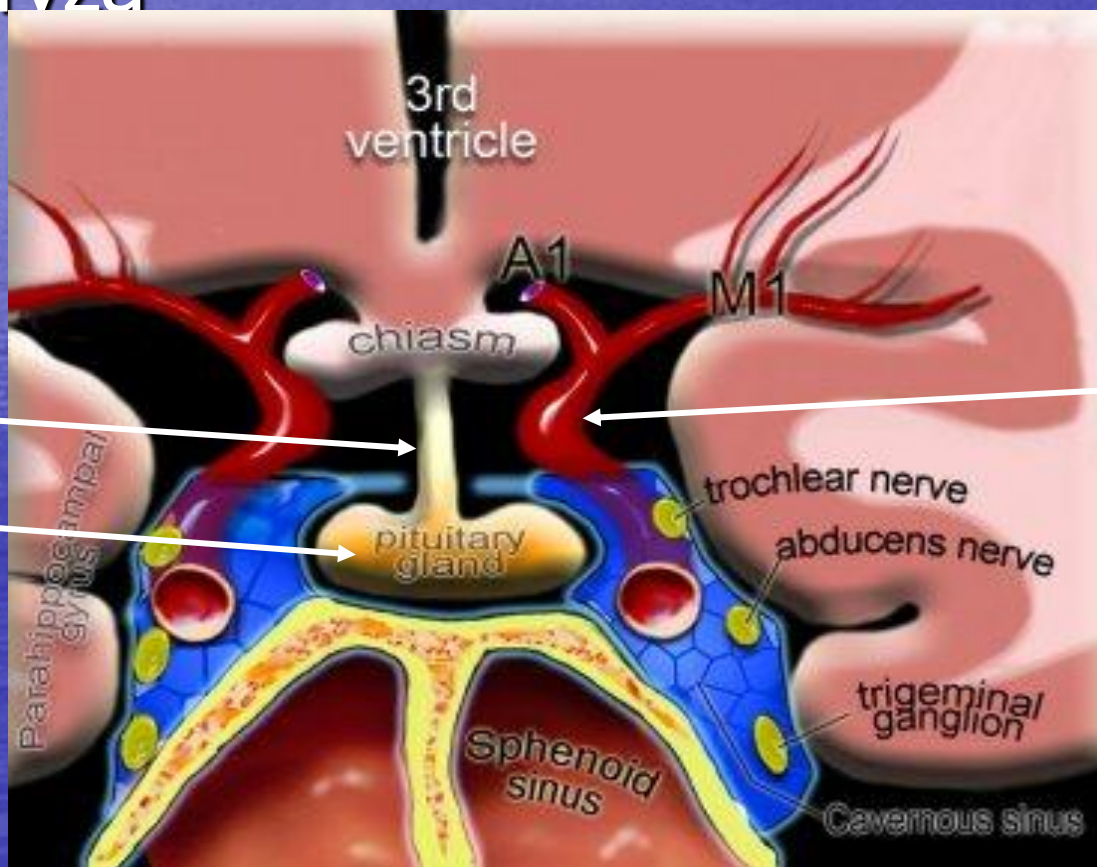
## Virchow-Robin







- Hypofýza

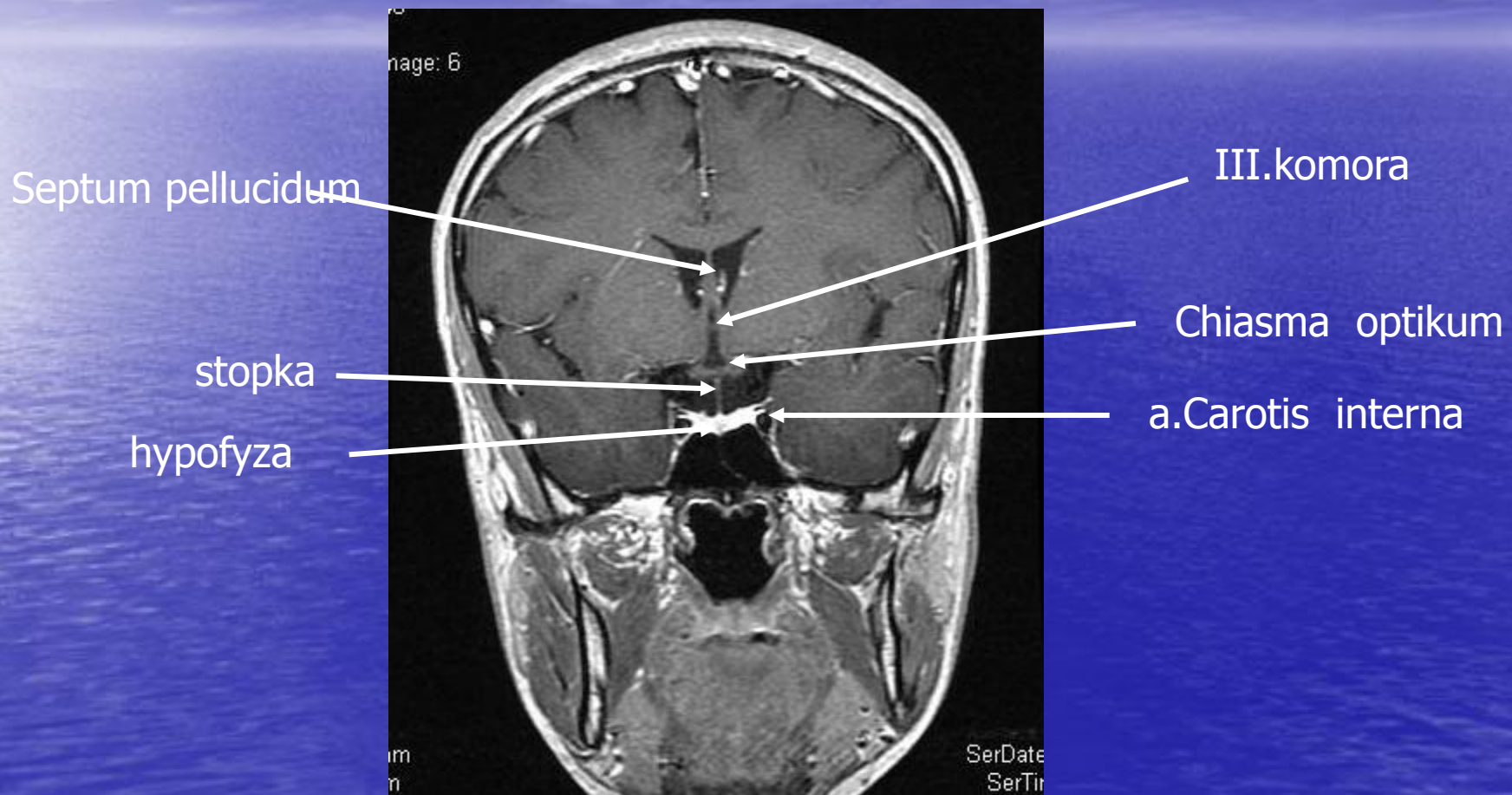


Stopka hypofýzy

hypofýza

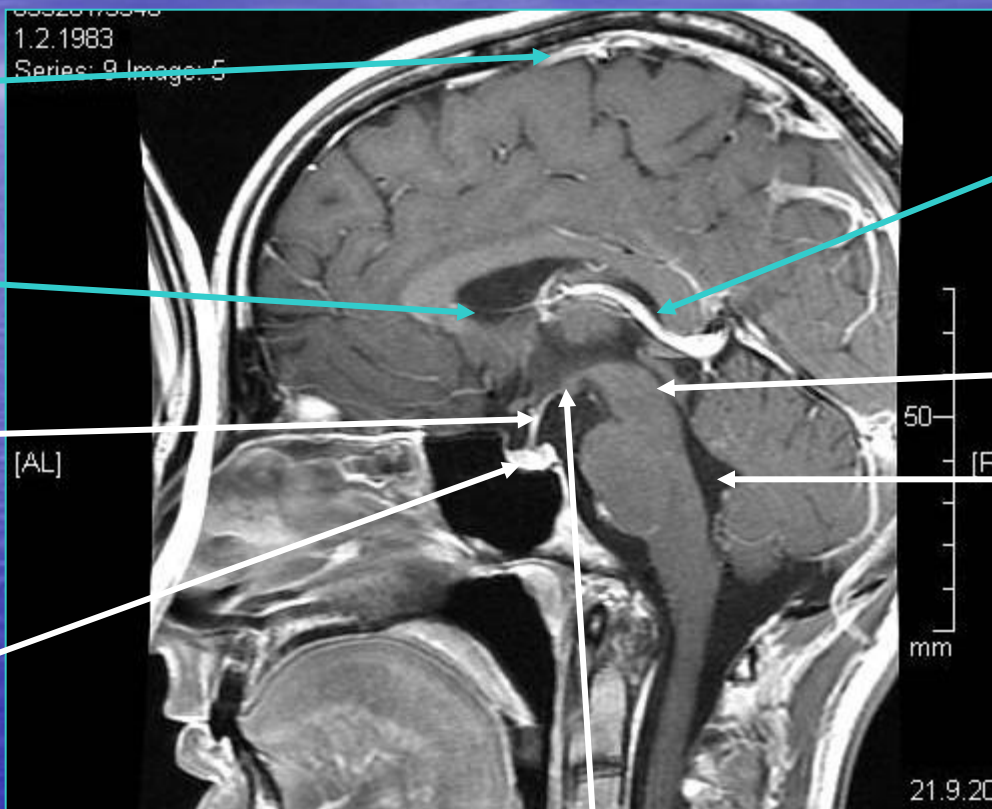
a.Carotis intern

a





s.Sagitalis superior



v.septi pellucidi

Stopka  
hypofýzy

hypofýza

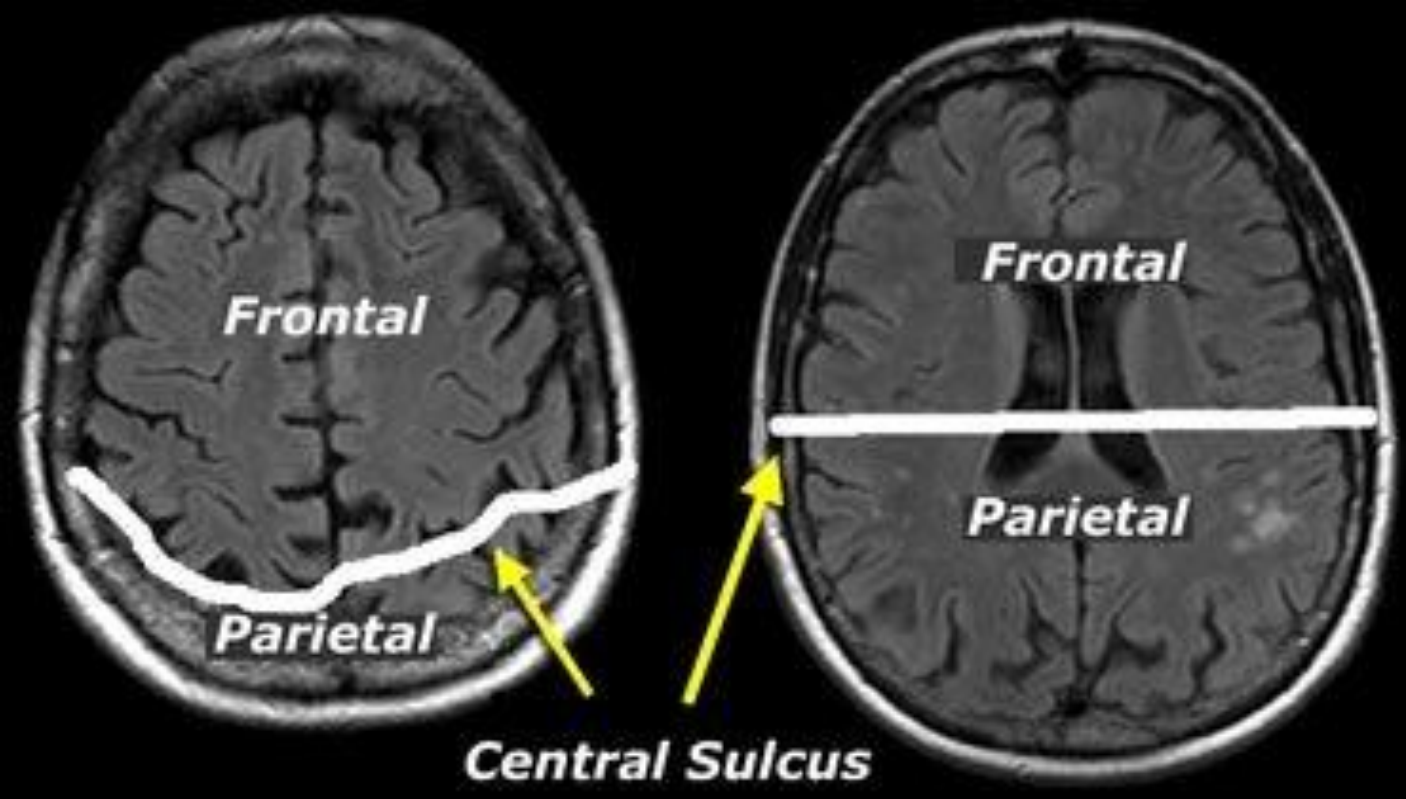
v.Cerebri interna

mokovod

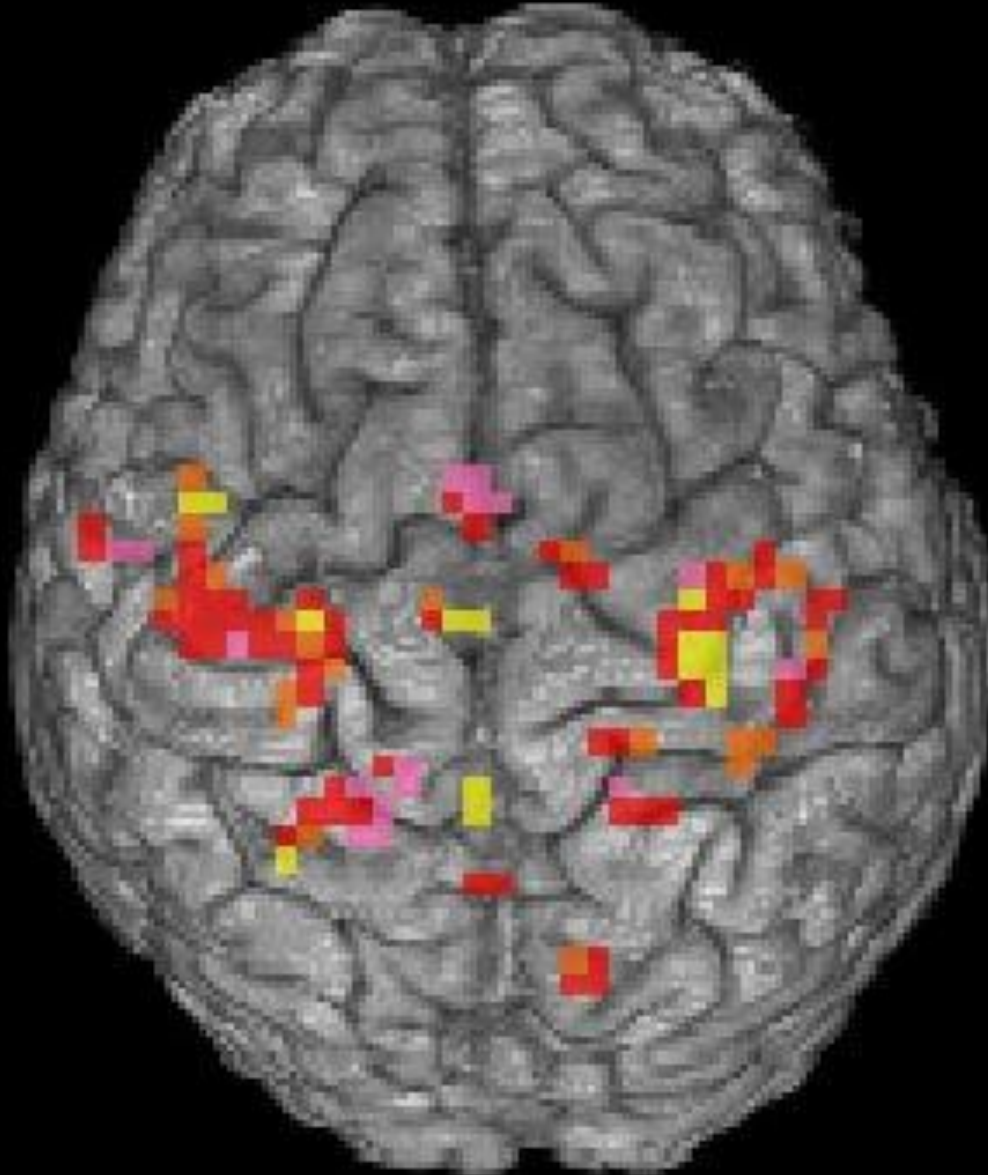
IV.komora

Corpora mamilaria

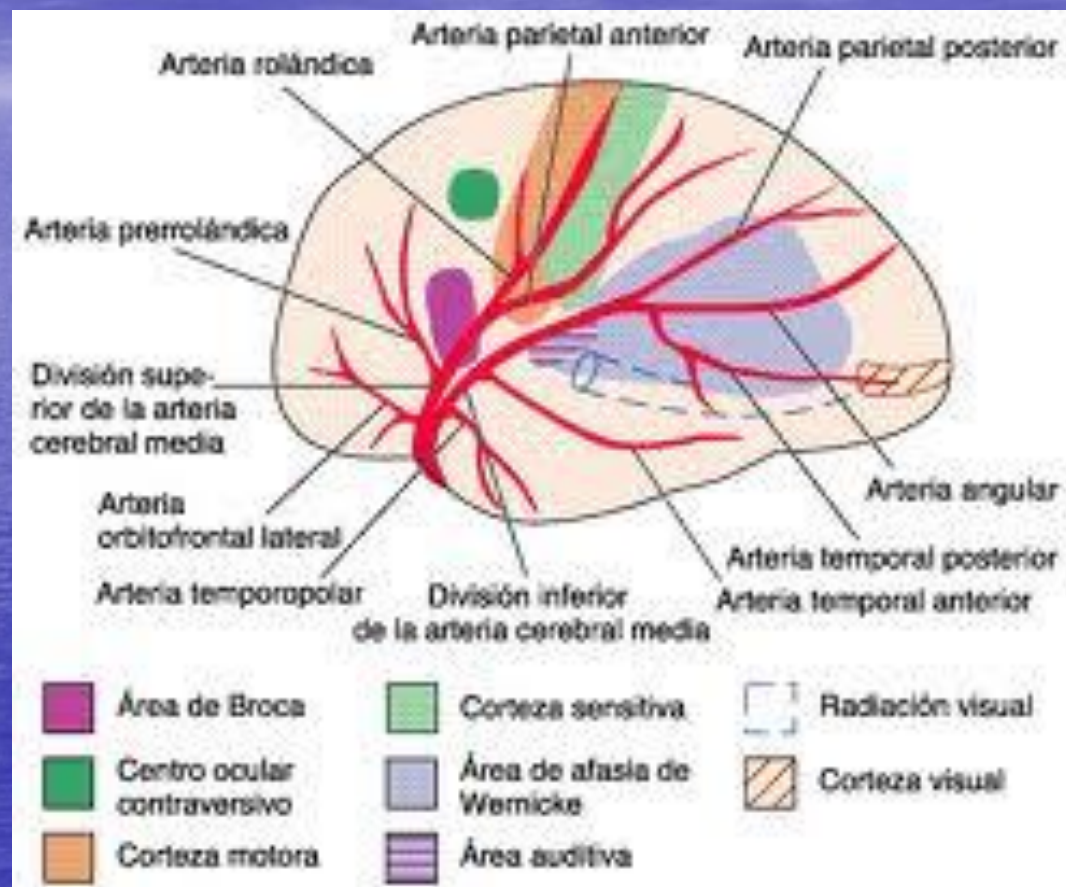




# Funkční MR mozku- B O L D

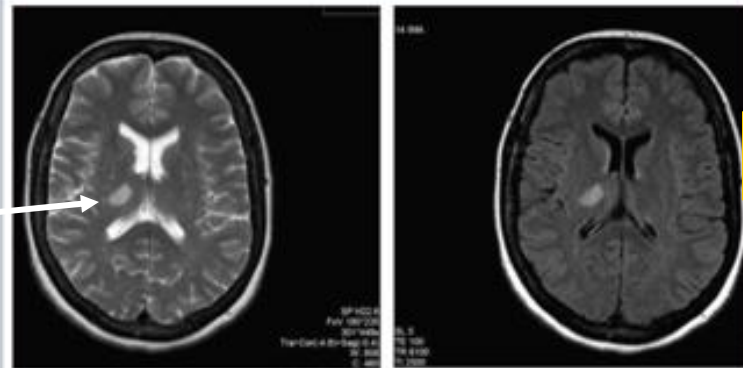






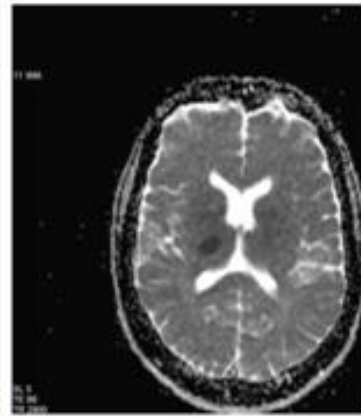
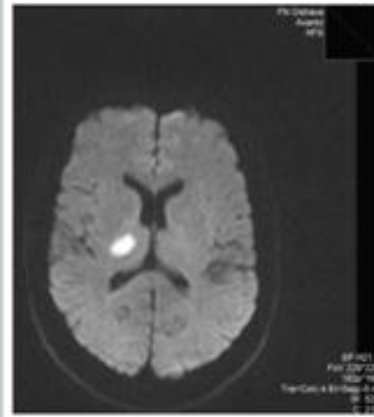


T2 v.o.

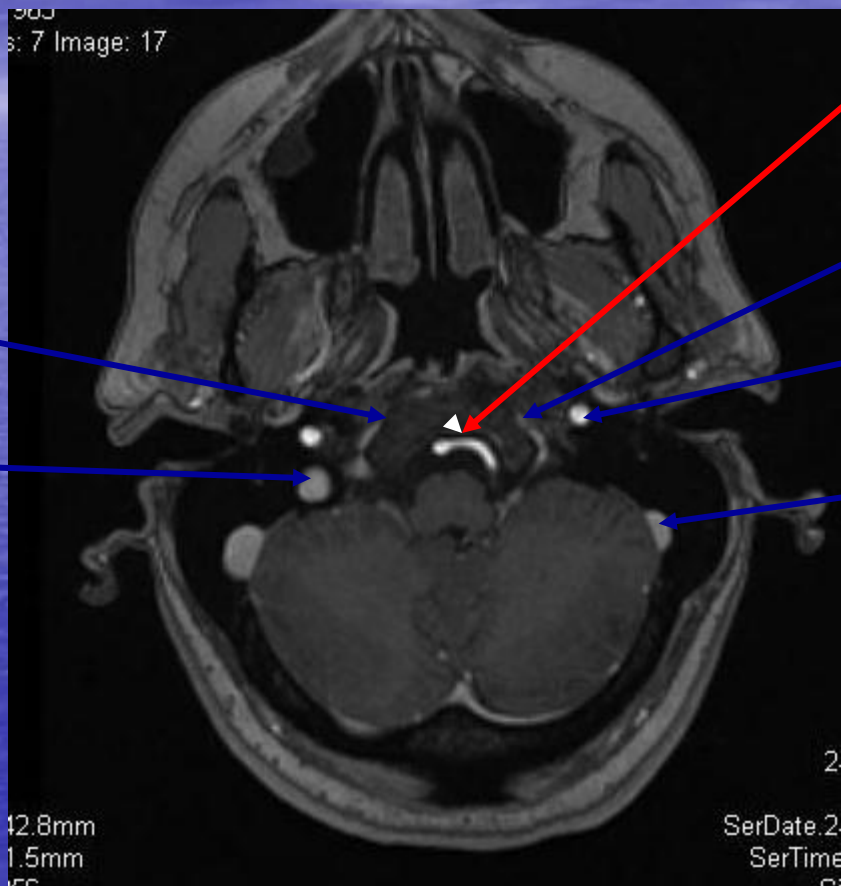


FLAIR

DWI



DWI



a.bazilaris

Peripontinní žíly

a.carotis interna

Sinus sigmoideus

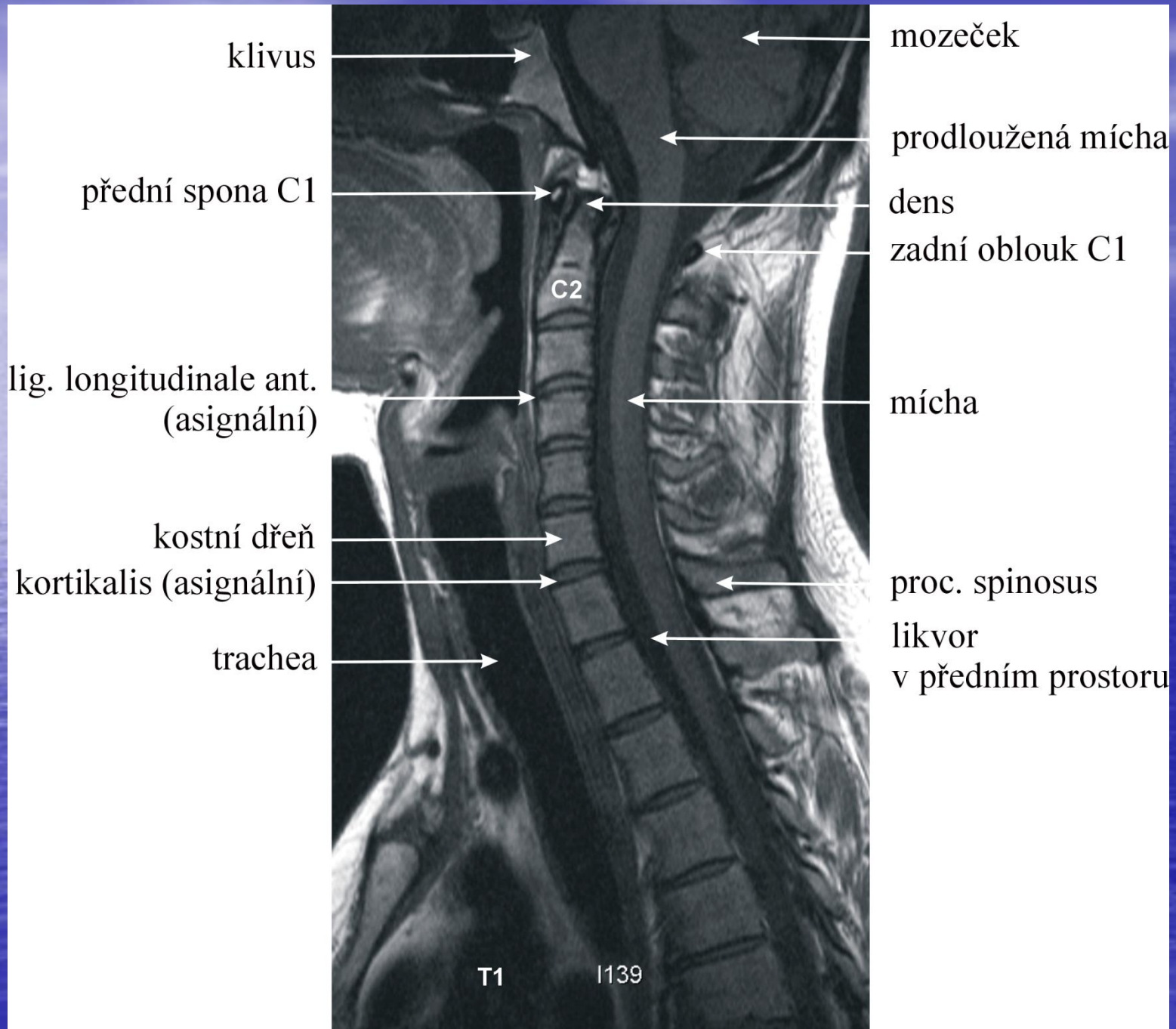
Peripontinní žíly

v.jugularis









klivus

přední spona C1

lig. longitudinale ant.  
(asignální)

kostní dřeň  
kortikalis (asignální)

trachea

mozeček

prodloužená mícha

dens

zadní oblouk C1

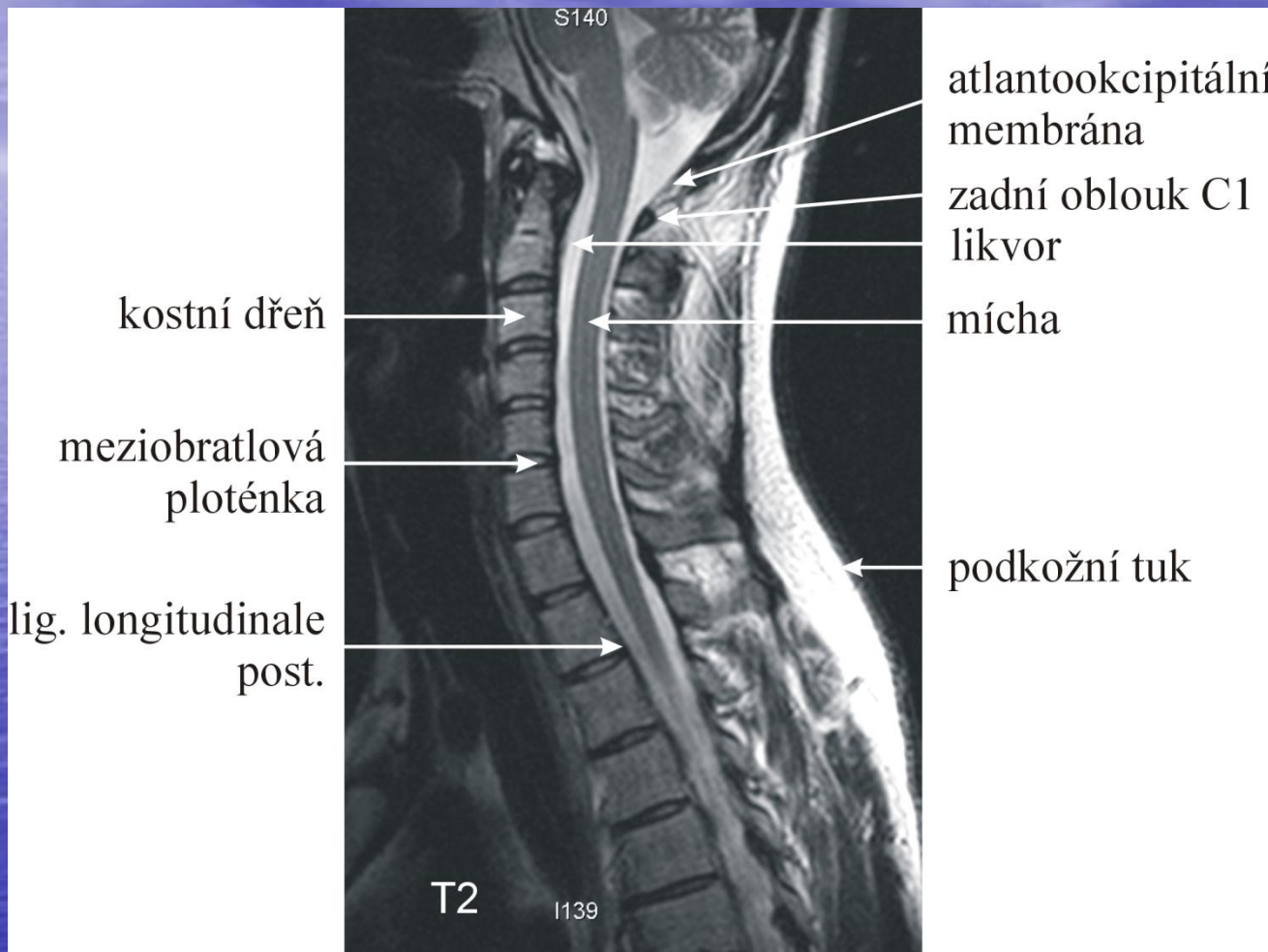
mícha

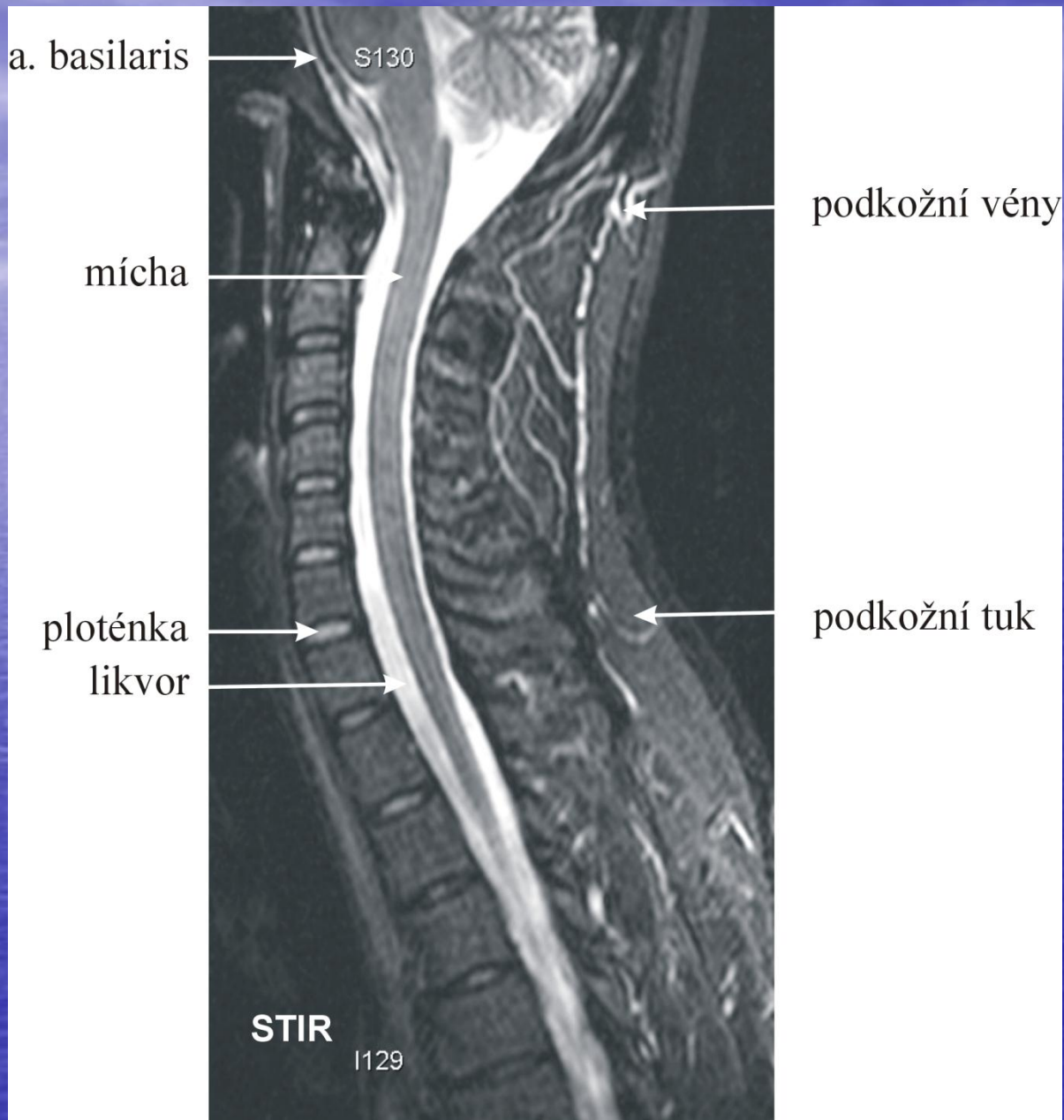
proc. spinosus

likvor  
v předním prostoru

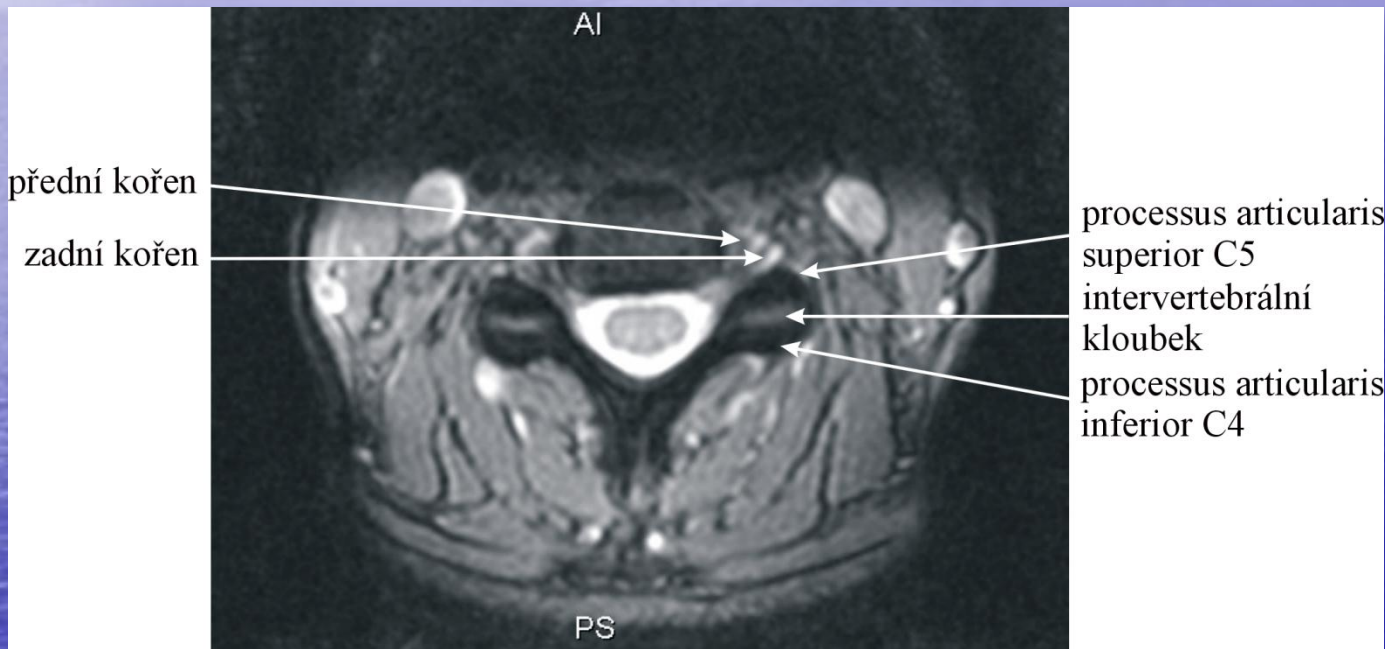
C2

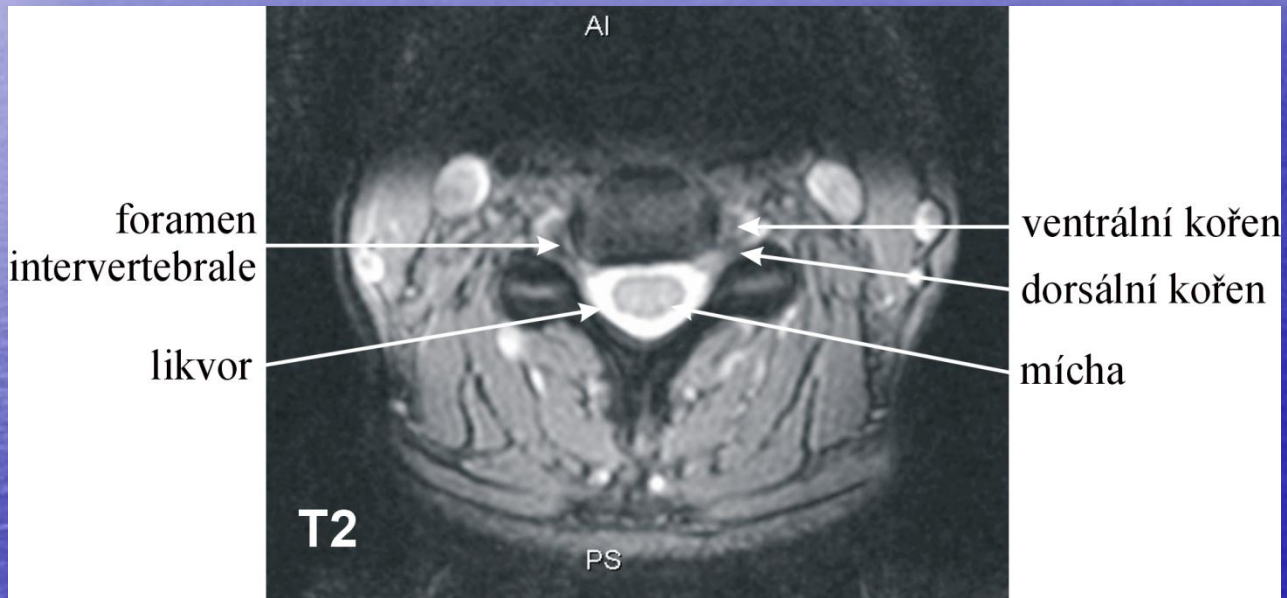
T1 I139









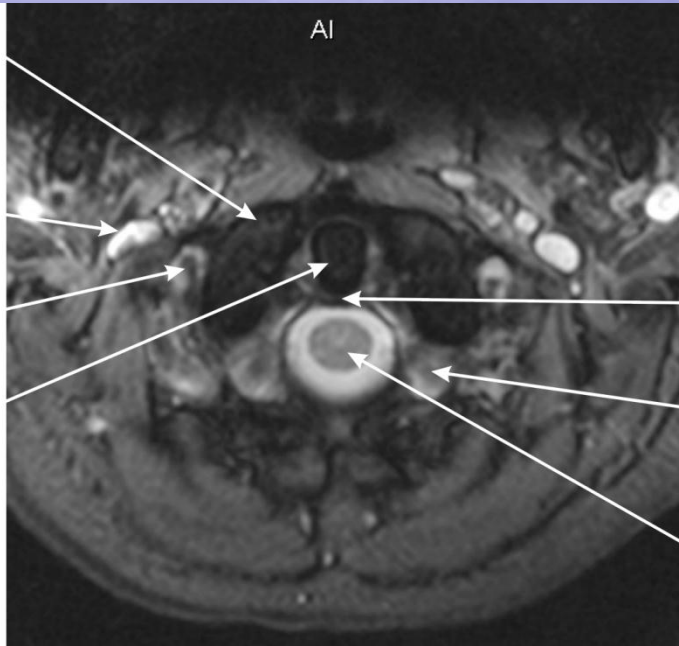


massa lateralis C1

v. jugularis interna

a. vertebralis

dens axis



ligamentum  
transversum  
foramen  
intervertebrale C1-2

mícha



bazivertebrální  
véna

nucleus  
pulposus

anulus fibrosus

ligamentum  
longitudinale  
posterius

SR

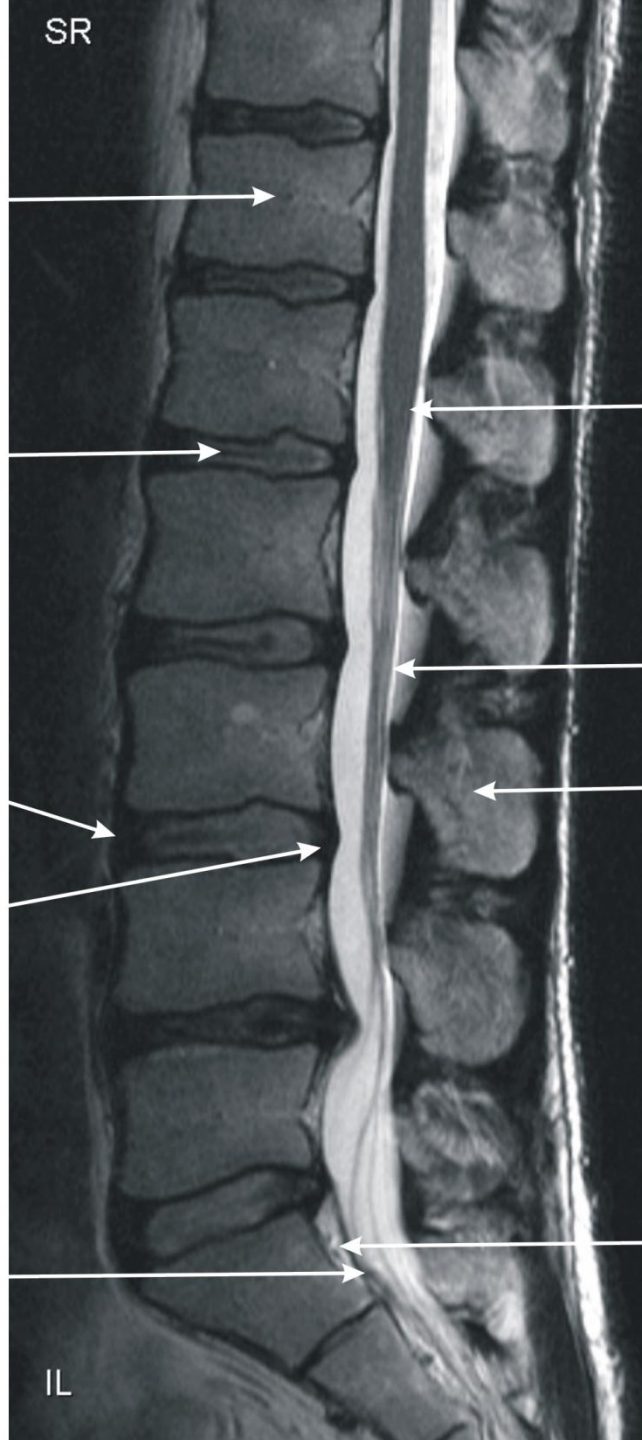
IL

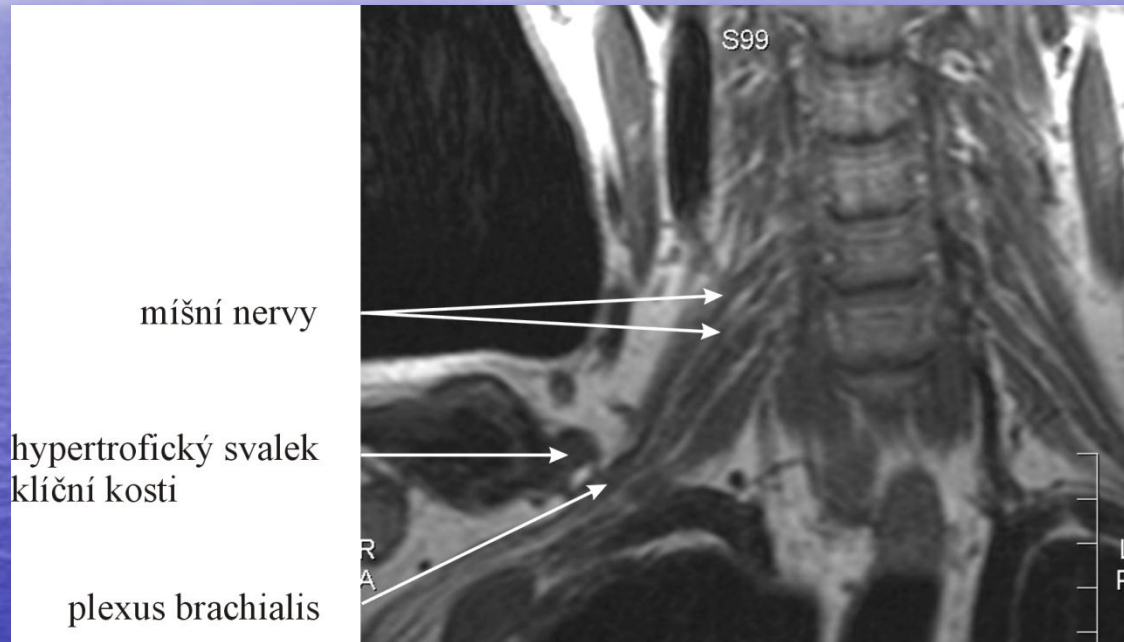
míšní konus

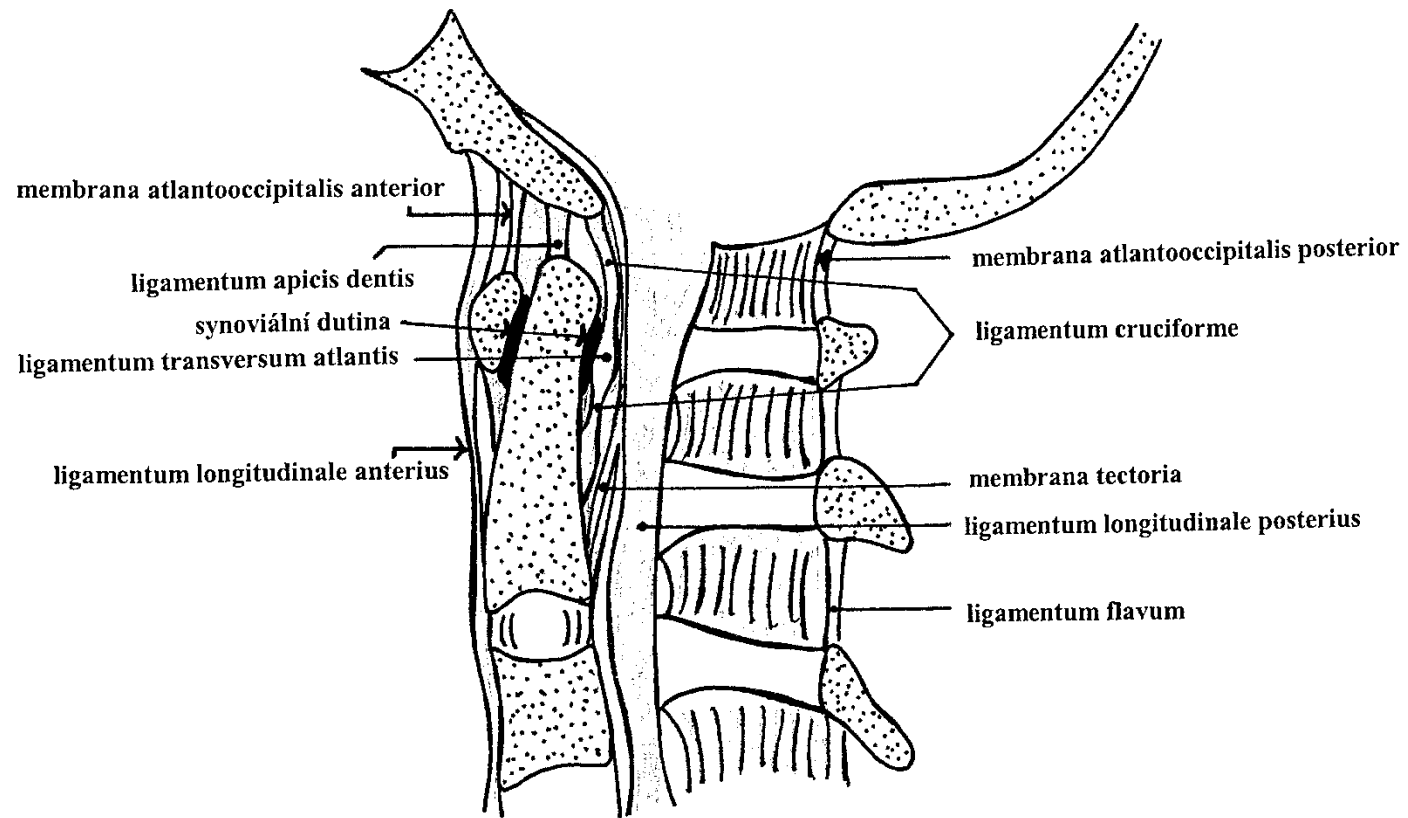
kauda

processus  
spinosus

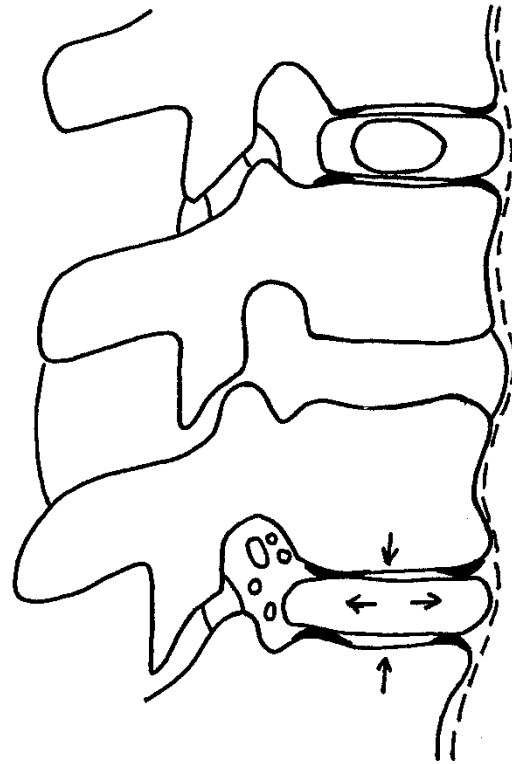
epidurální žíla



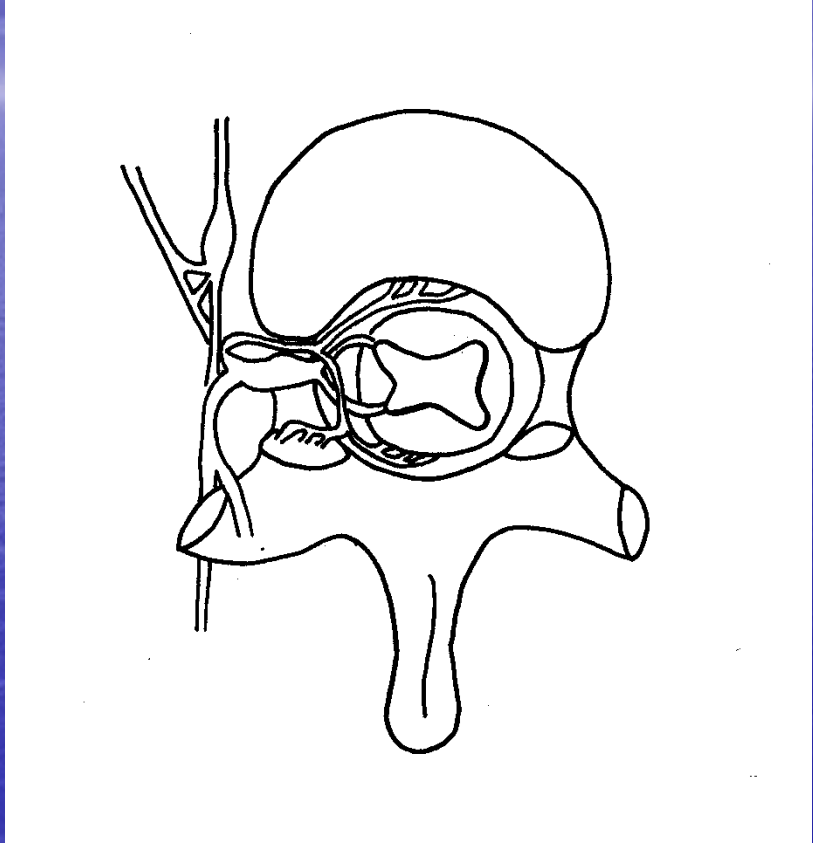




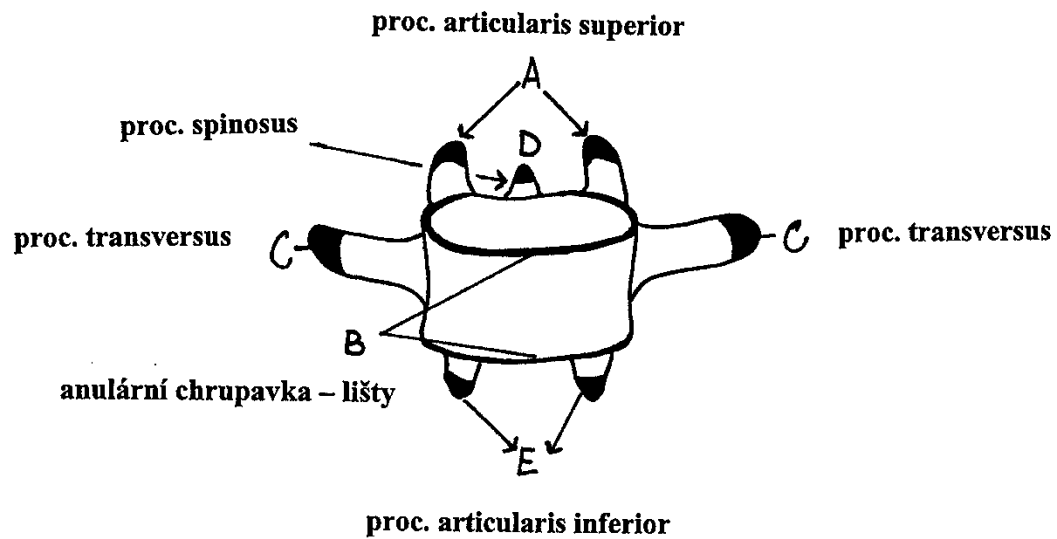




**Změna tvaru ploténky při axiální zátěži**



## Sekundární ossifikační centra





# Zobrazení mozku a páteře výpočetní tomografií

MUDr. Tomáš Jonszta

Sinus maxillaris

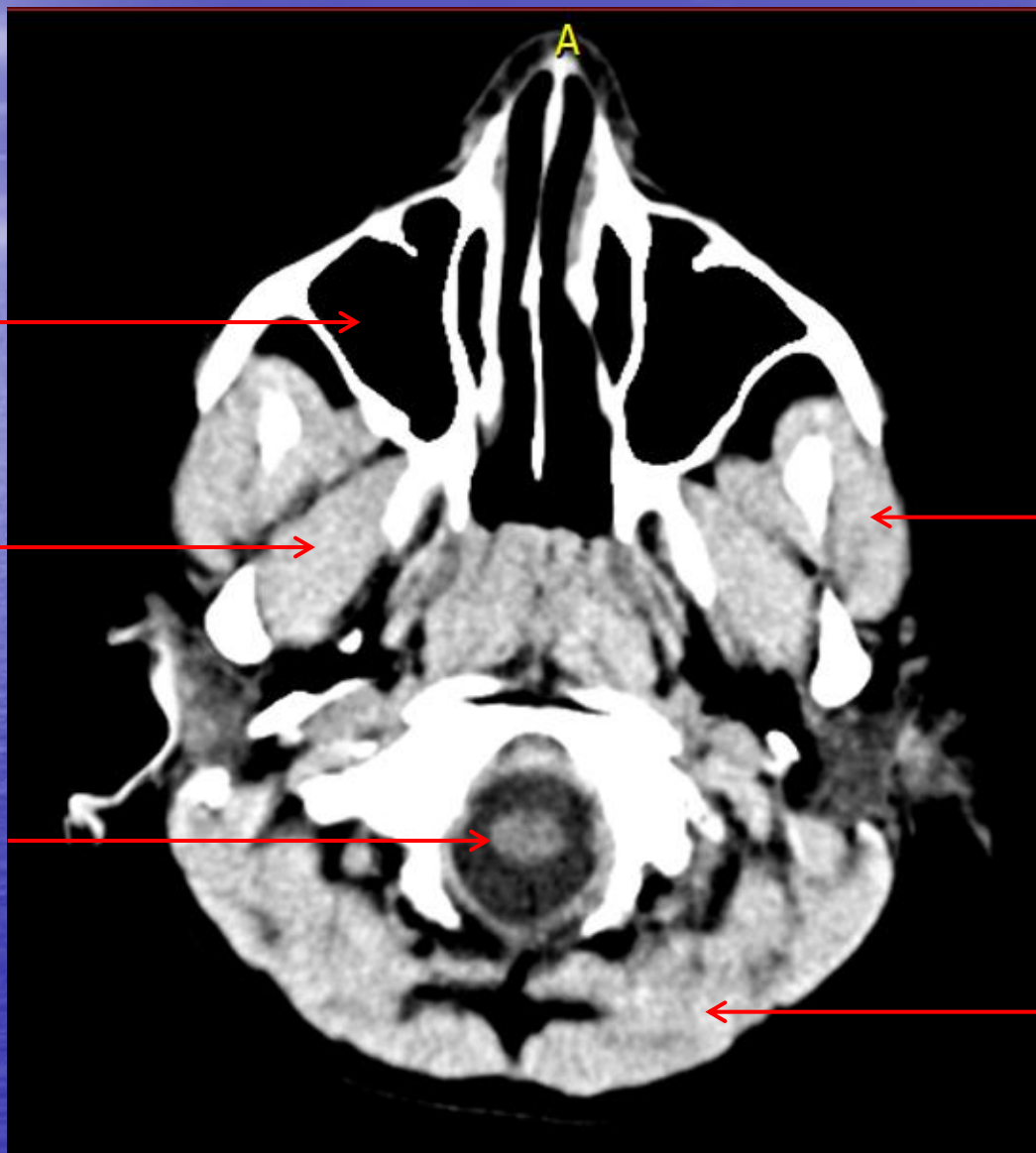
Pterygoidní svaly

Medulla oblongata

A

Musc. temporalis

Suboccipitální svaly



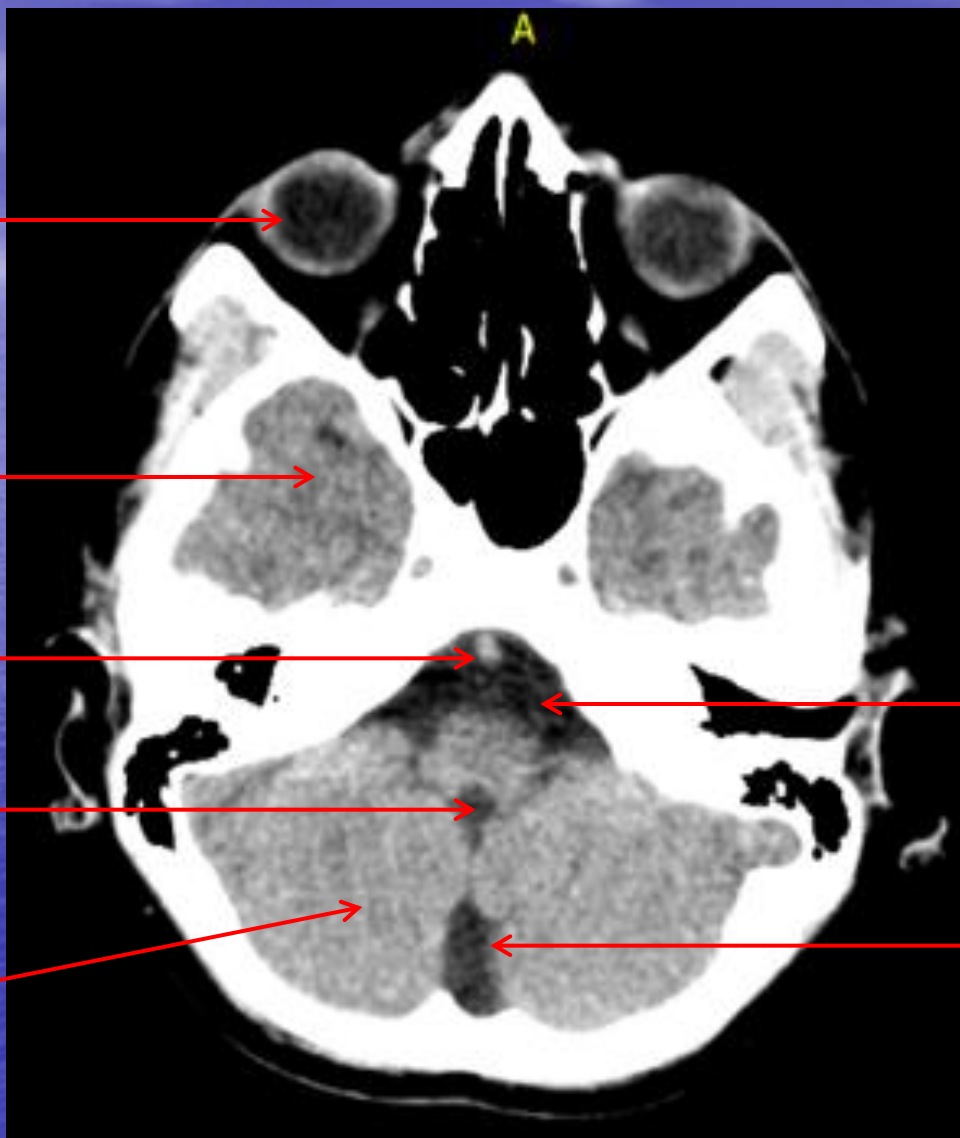
Bulbus oculi

Lobus temporalis

Arteria basilaris

4. komora

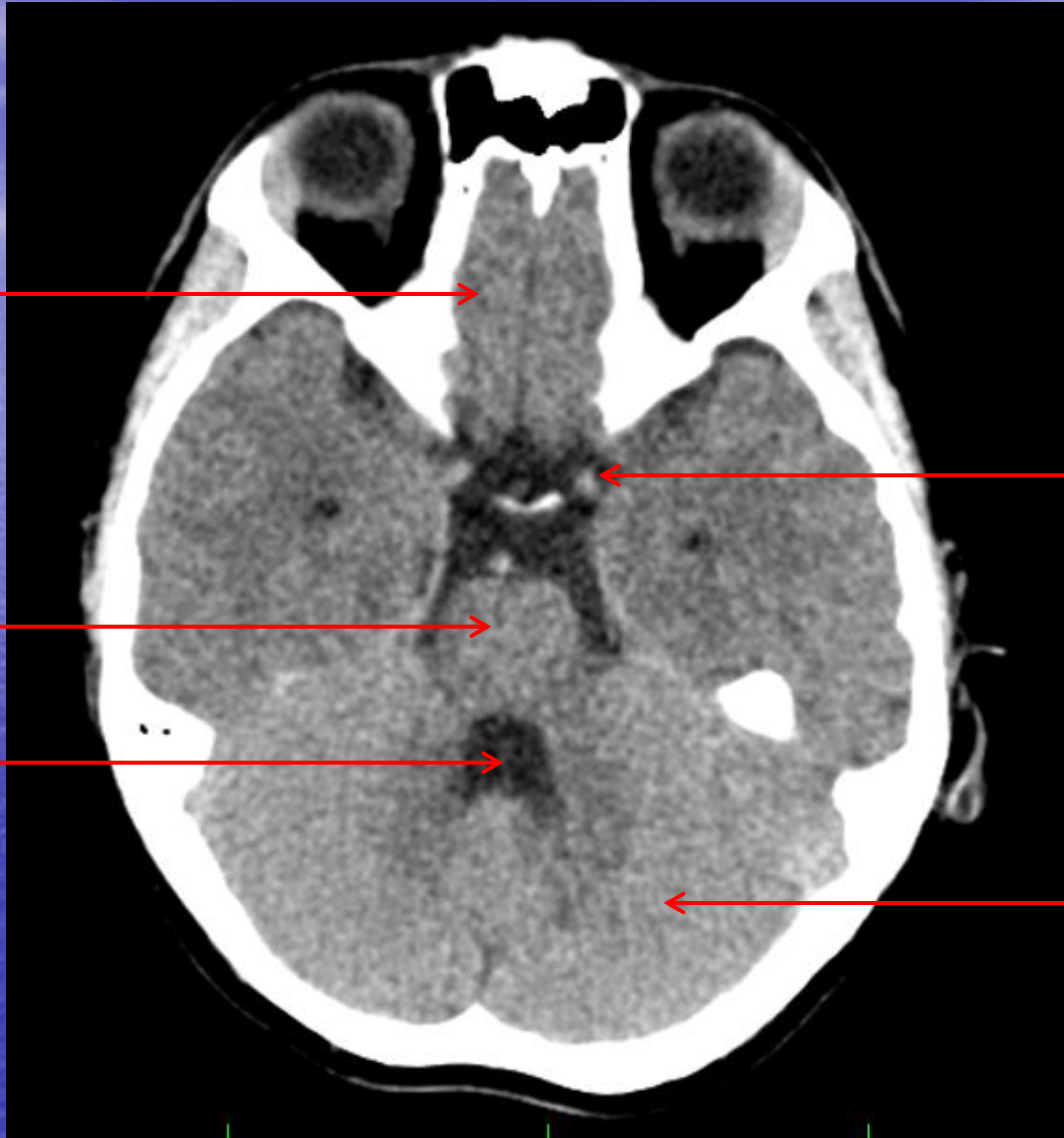
Cerebellum



Subarachnoidální  
prostor

Cisterna  
cerebellomedularis





Gyrus rectus



Arteria carotis interna



Pons Varoli



4. komora



Cerebellum





Corpus mammilare

Temporální roh  
postranní  
komory

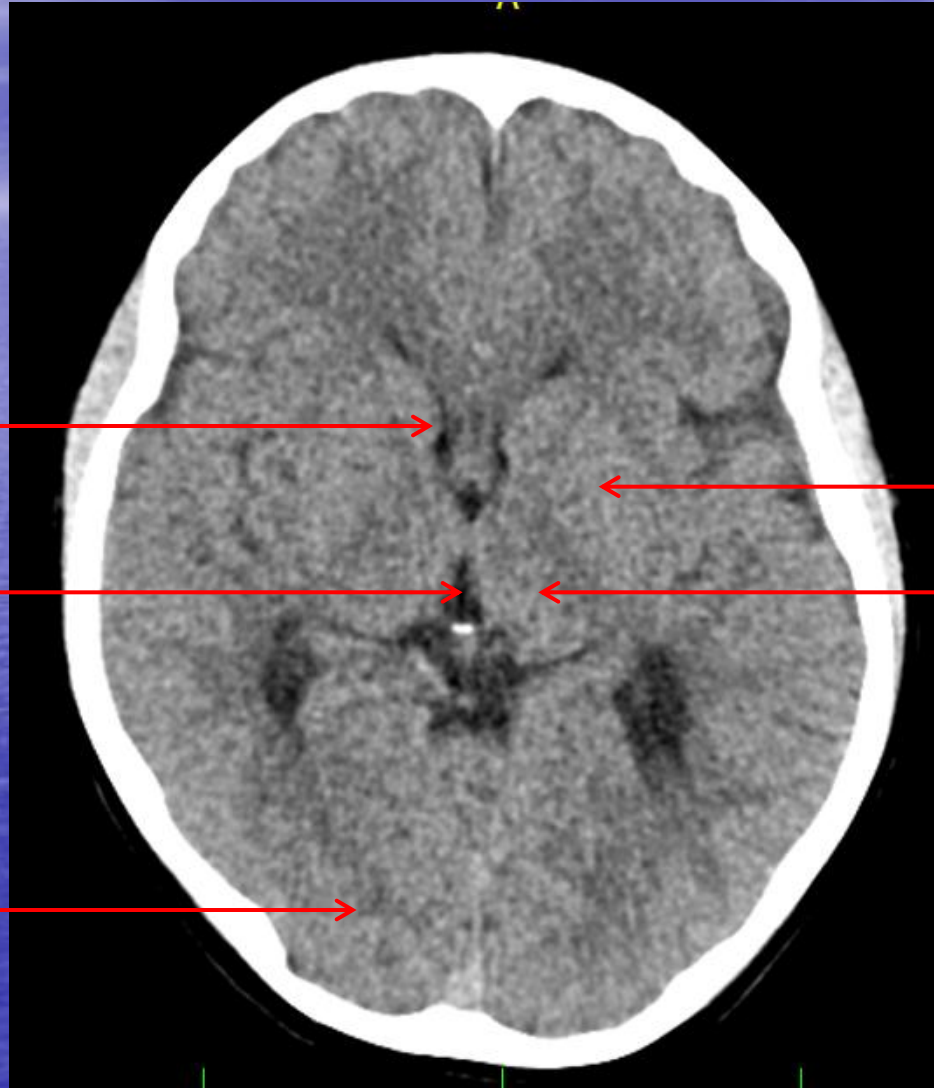
Fissura Sylvii

Mezenkephalon

Frontální roh  
postranní komory

3. komora

Lobus occipitalis



Basální ganglia

Thalamus



Šedá hmota  
mozková



Postranní komora



Šedá hmota  
mozková



Corpus callosum



Septum pellucidum



Falx cerebri



Centrum semiovale



Kortex



Sinus sagittalis superior



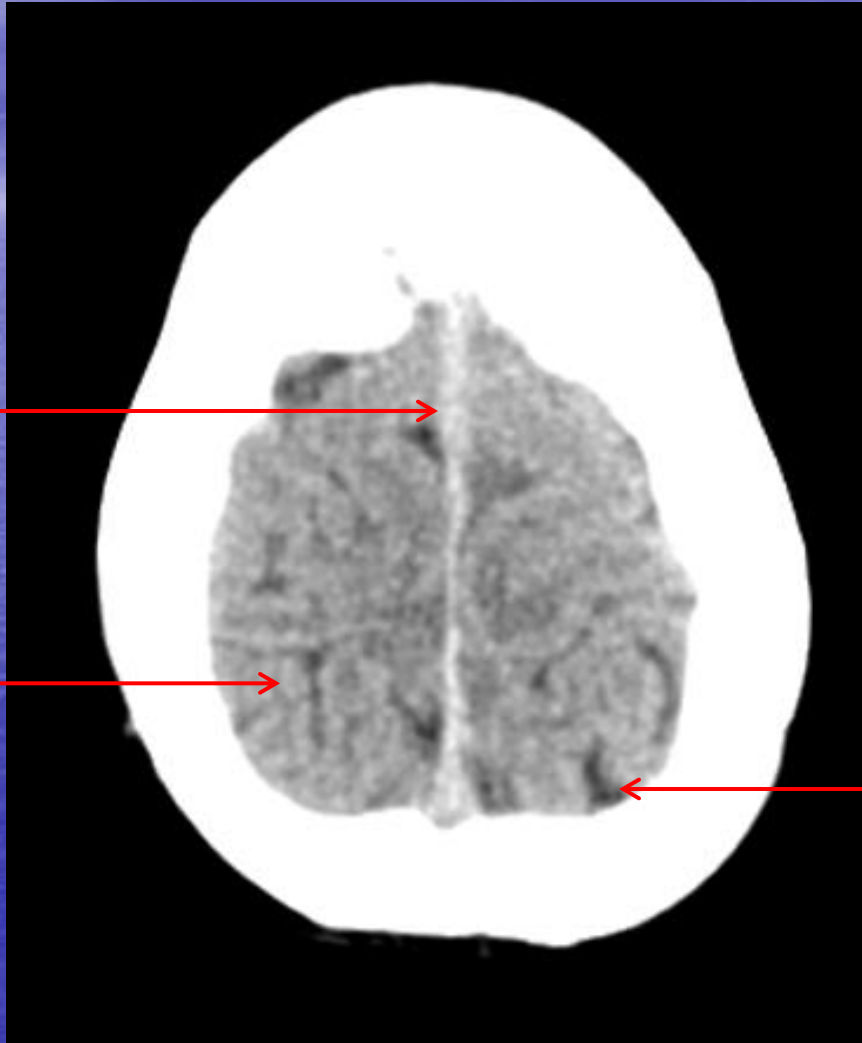
**Sinus sagittalis superior**



**Gyrus**



**Sulcus**



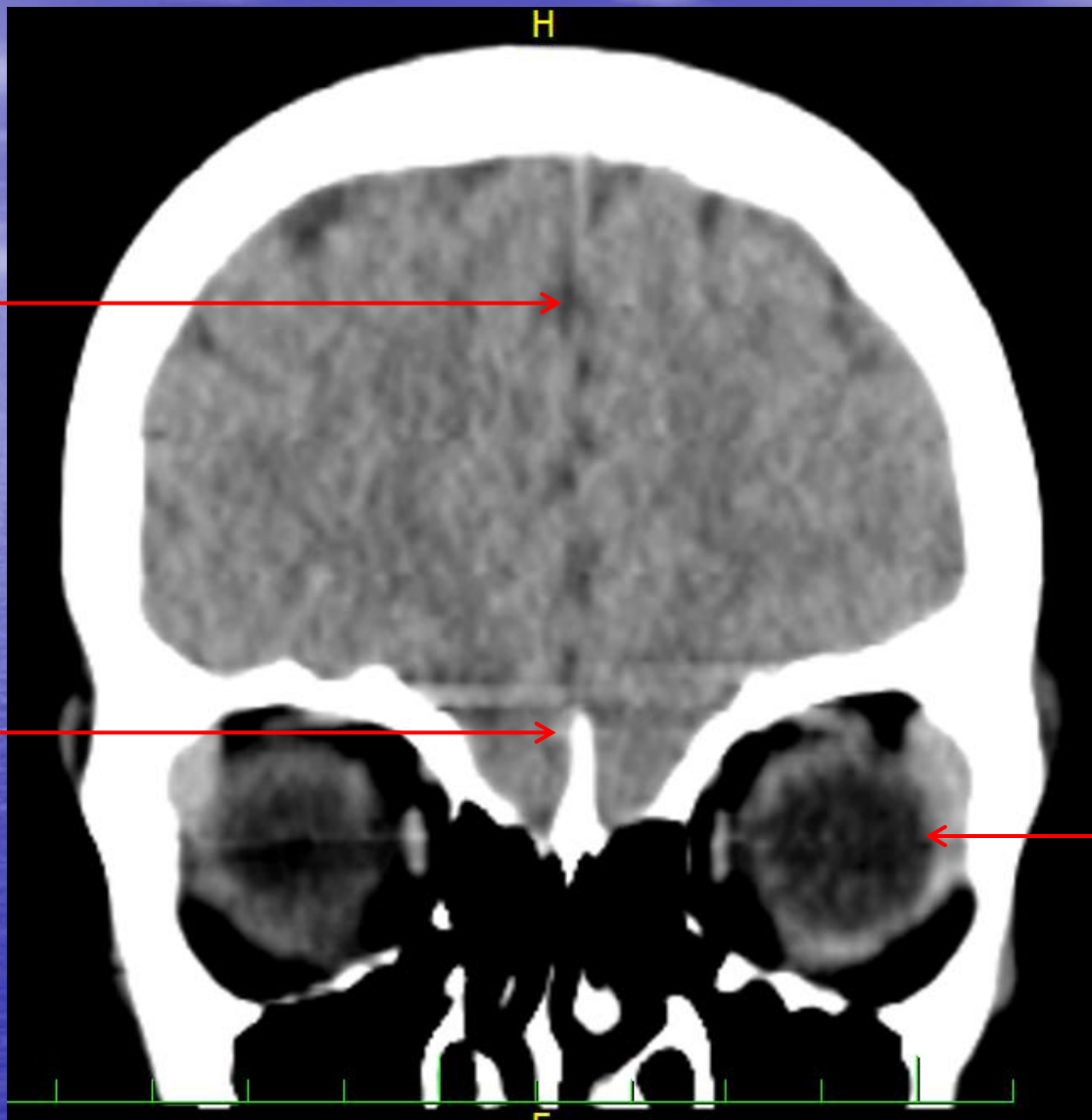


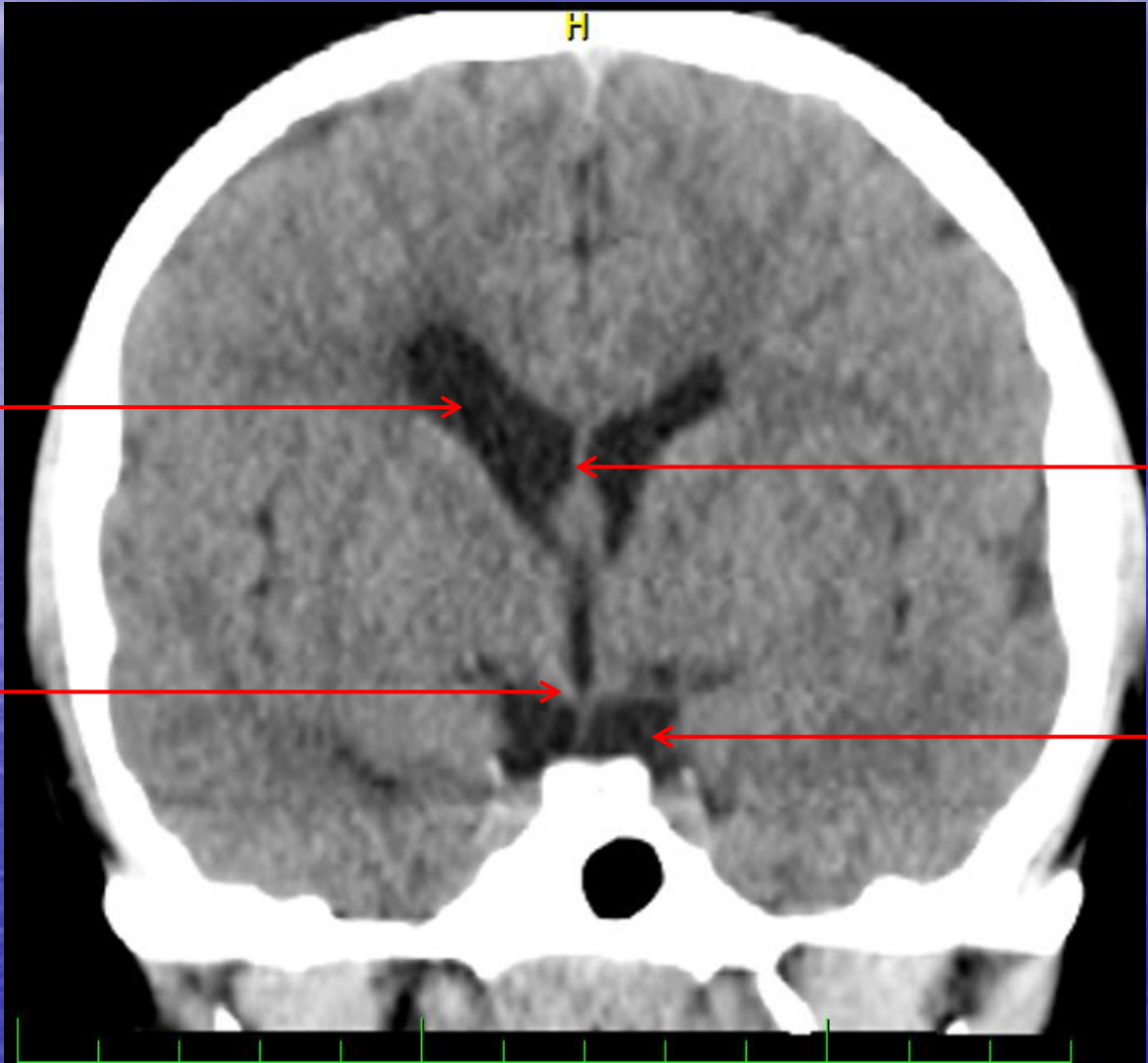
H

Falx cerebri

Crista galli

Bulbus oculi





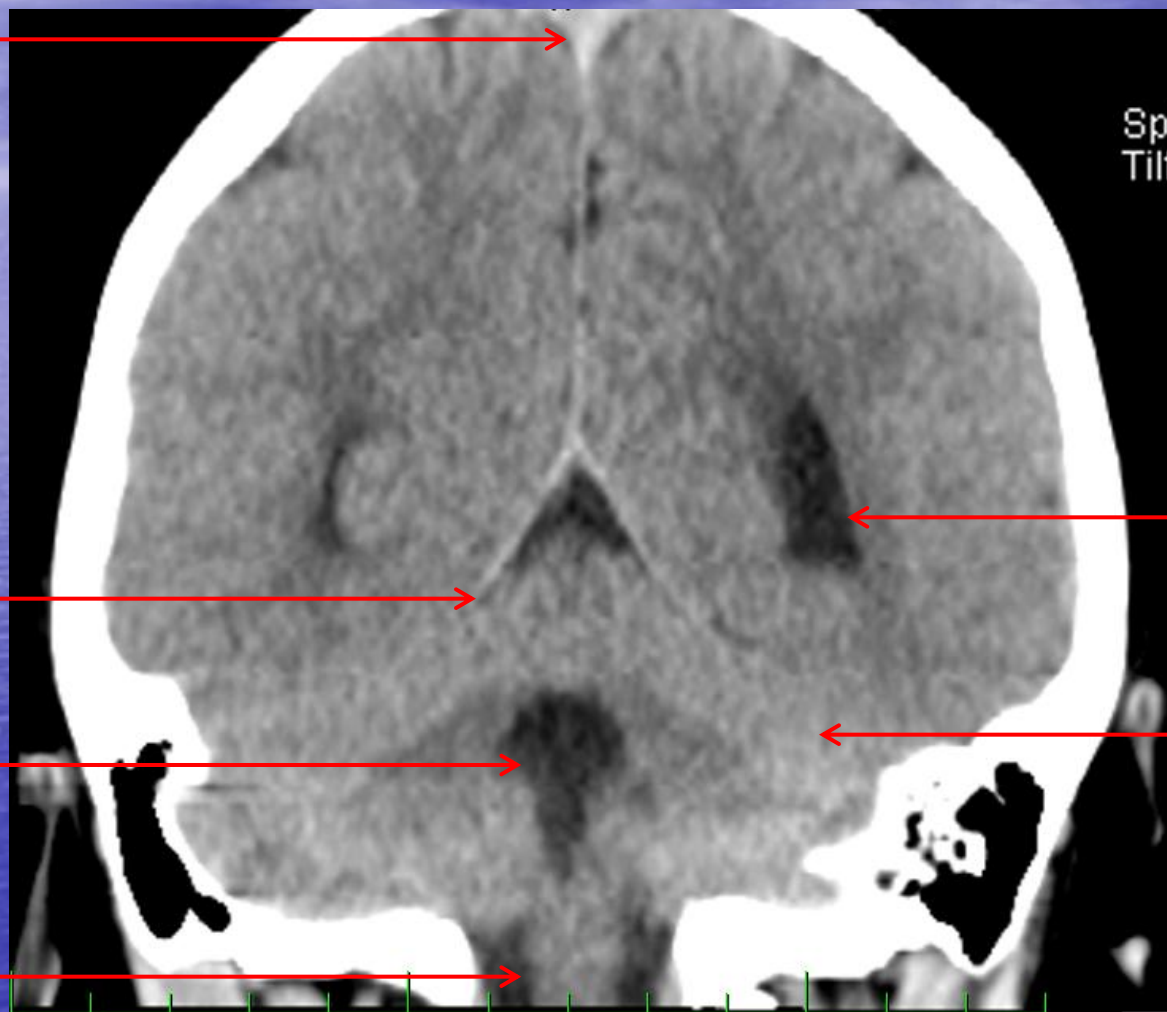
Ventriculus  
lateralis

Septum  
pellucidum

Chiasma opticum

Suprasellární  
cisterna

Sinus sagittalis superior



Spi  
Tilt

Occipitální roh postranní komory

Tentorium

Cerebellum

4. komora

Medulla oblongata



Falx cerebri



Tentorium



Cisterna

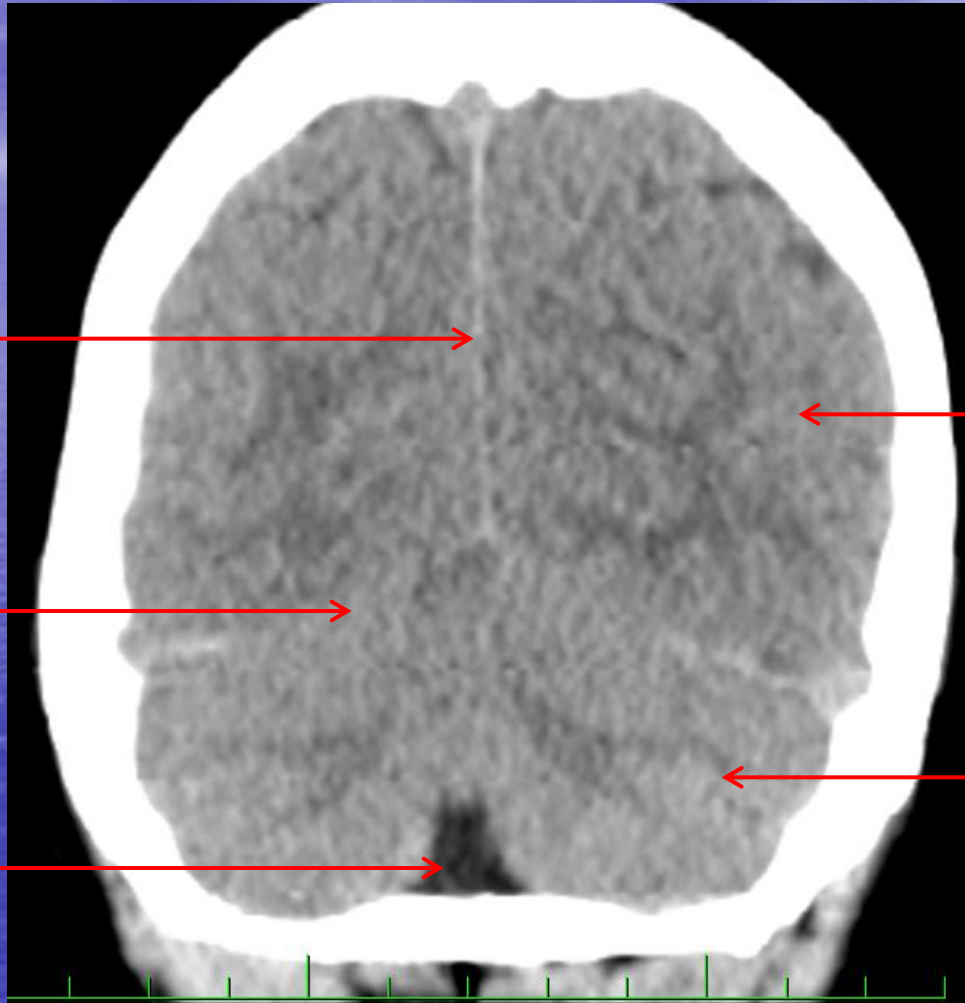
cerebellomedullaris

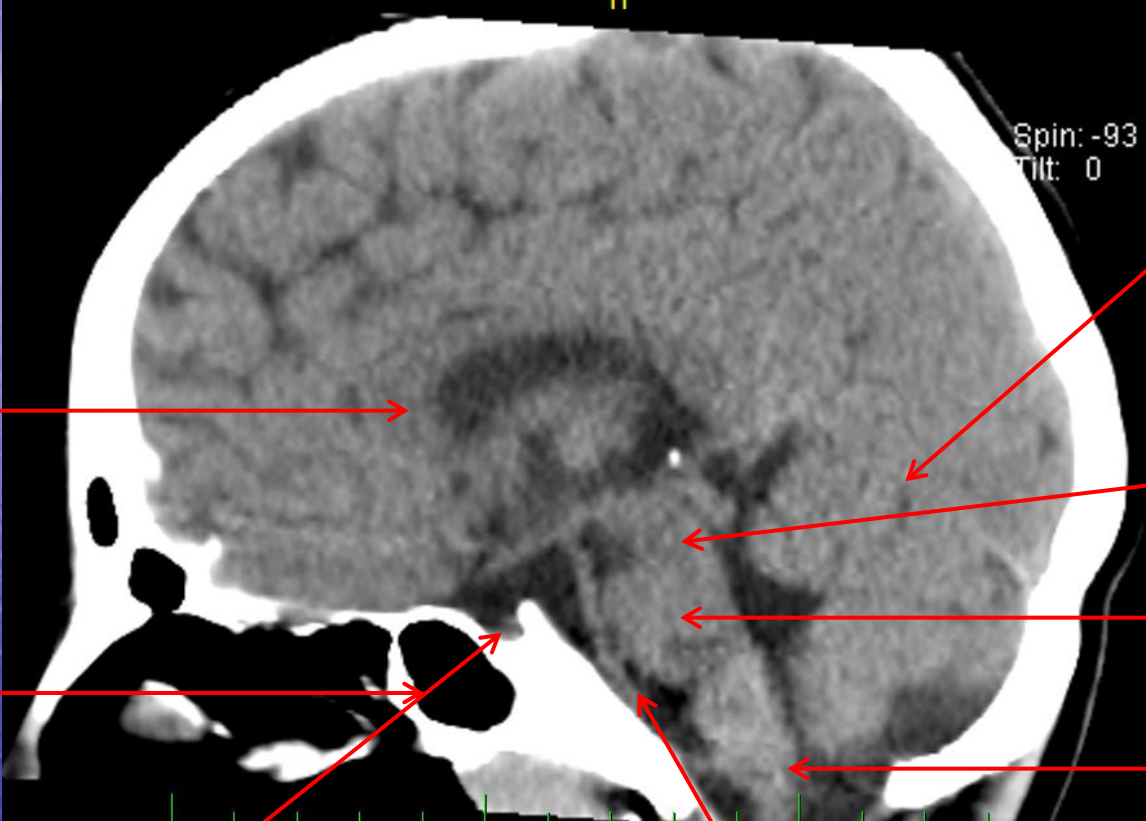


Lobus occipitalis



Cerebellum





Spin: -93  
Tilt: 0

Tentorium

Mezencephalon

Pons Varoli

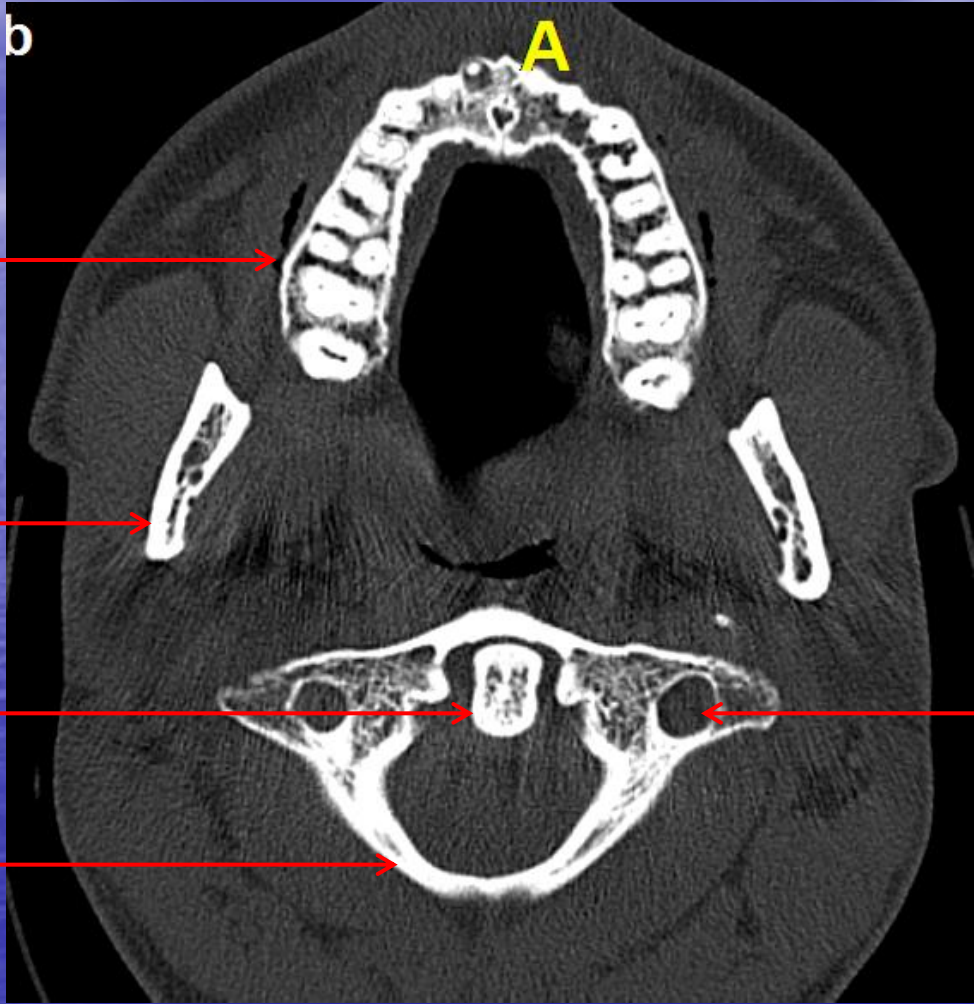
Medulla oblongata

Septum pellucidum

Sinus sphenoidalis

Glandula pituitaria

Arteria basilaris



b

A

Maxilla

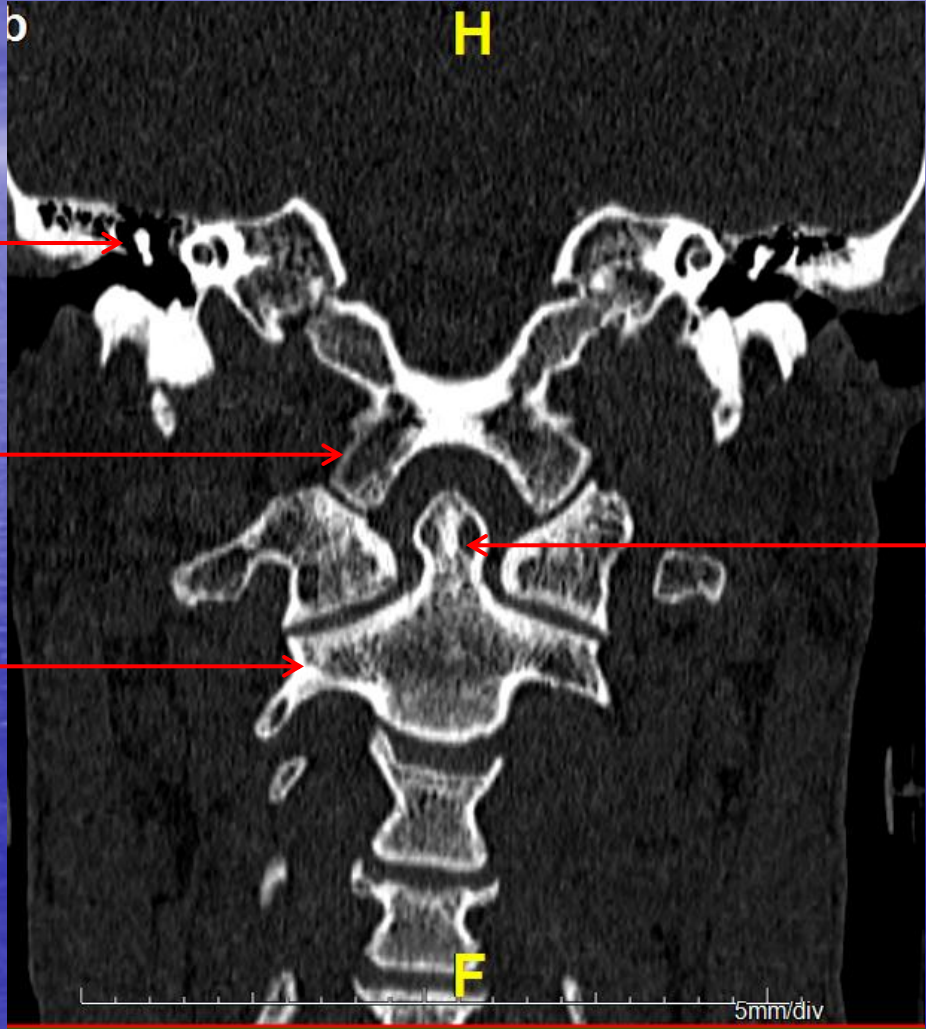
Mandibula

Dens axis

Atlas

Foramen  
processus  
transversi





b

H

Cavum tympani



Condylus occipitalis



Dens axis

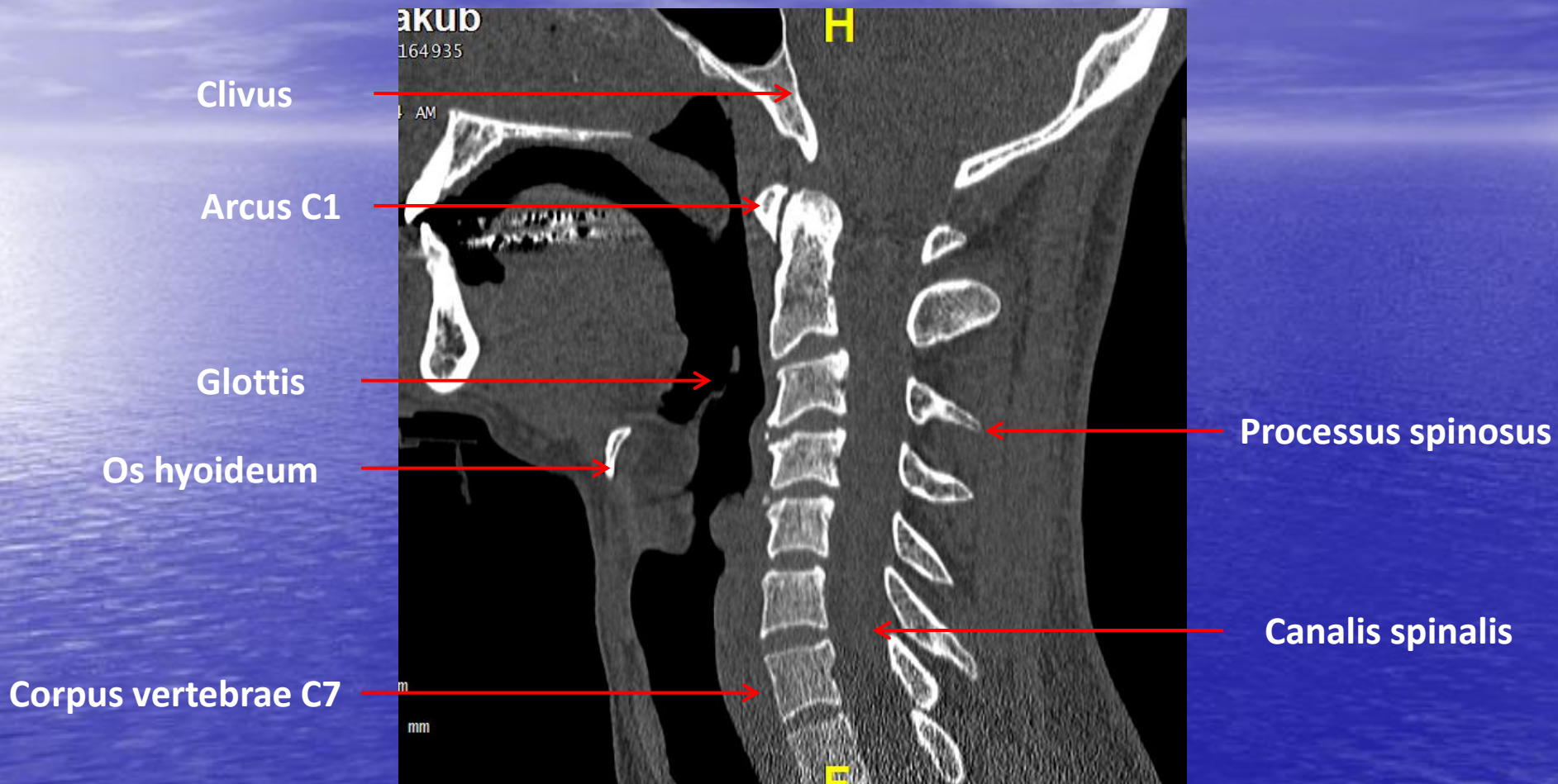


Axis

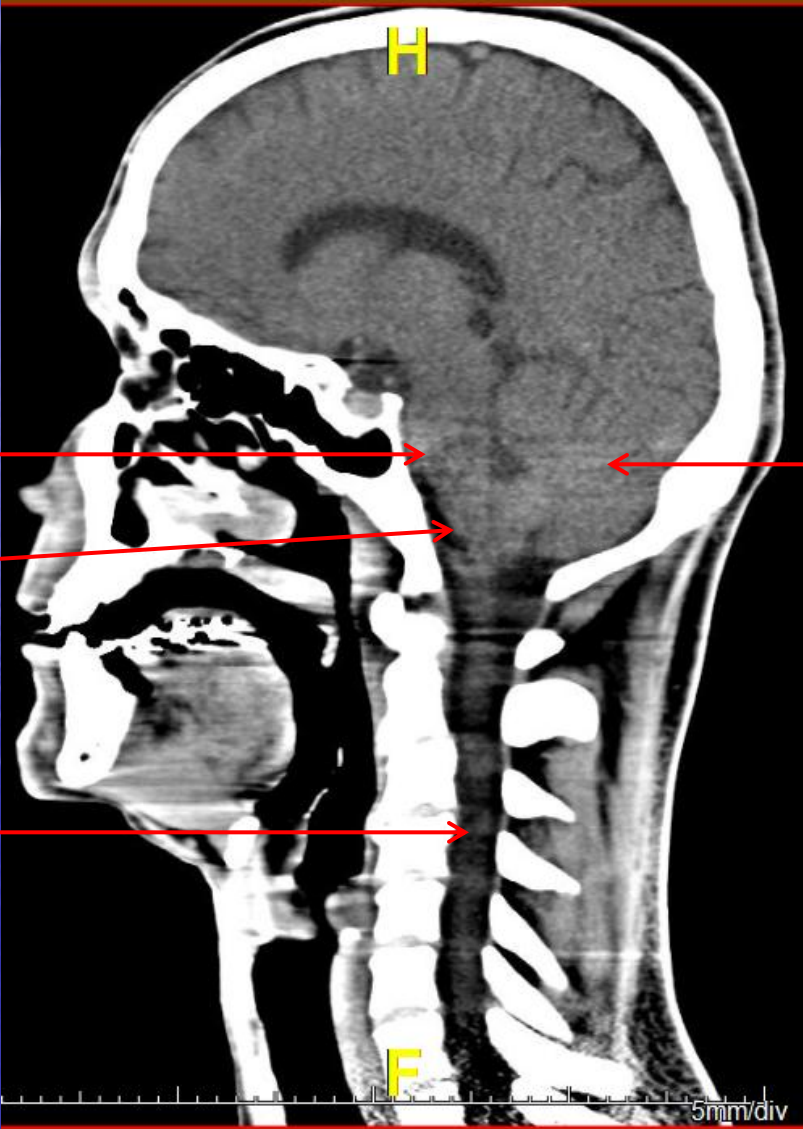


F

5mm/div







Pons Varoli

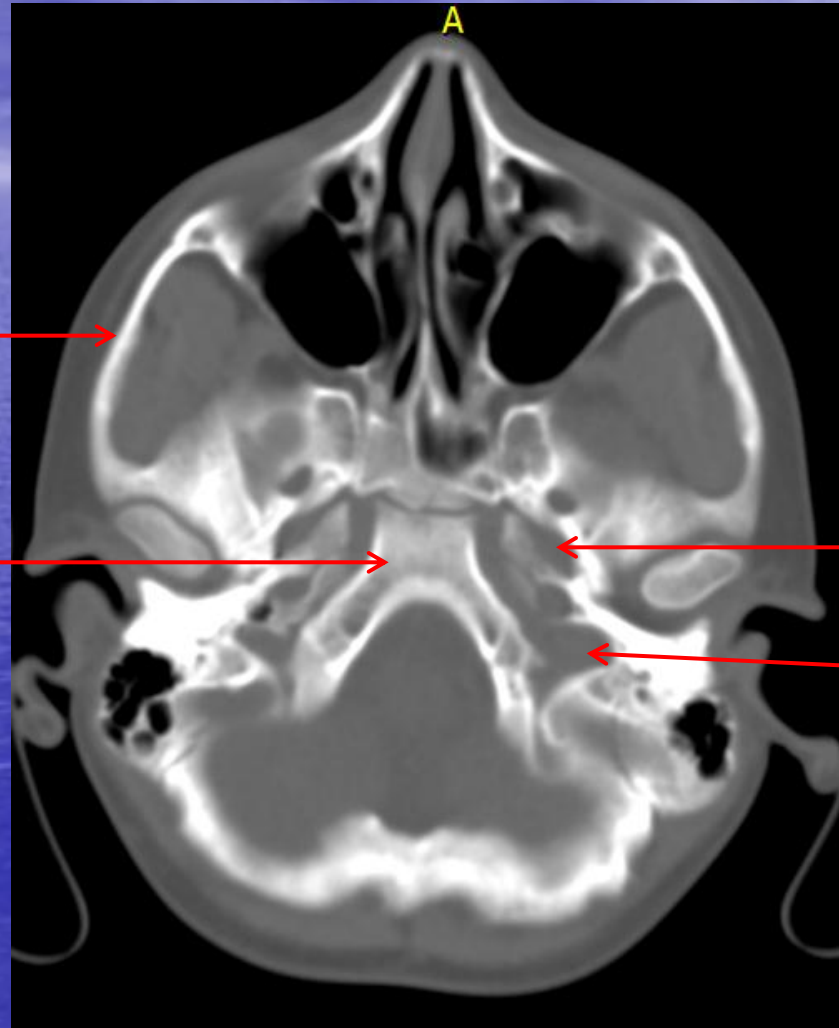
Cerebellum

Medulla oblongata

Medulla spinalis

5mm/div



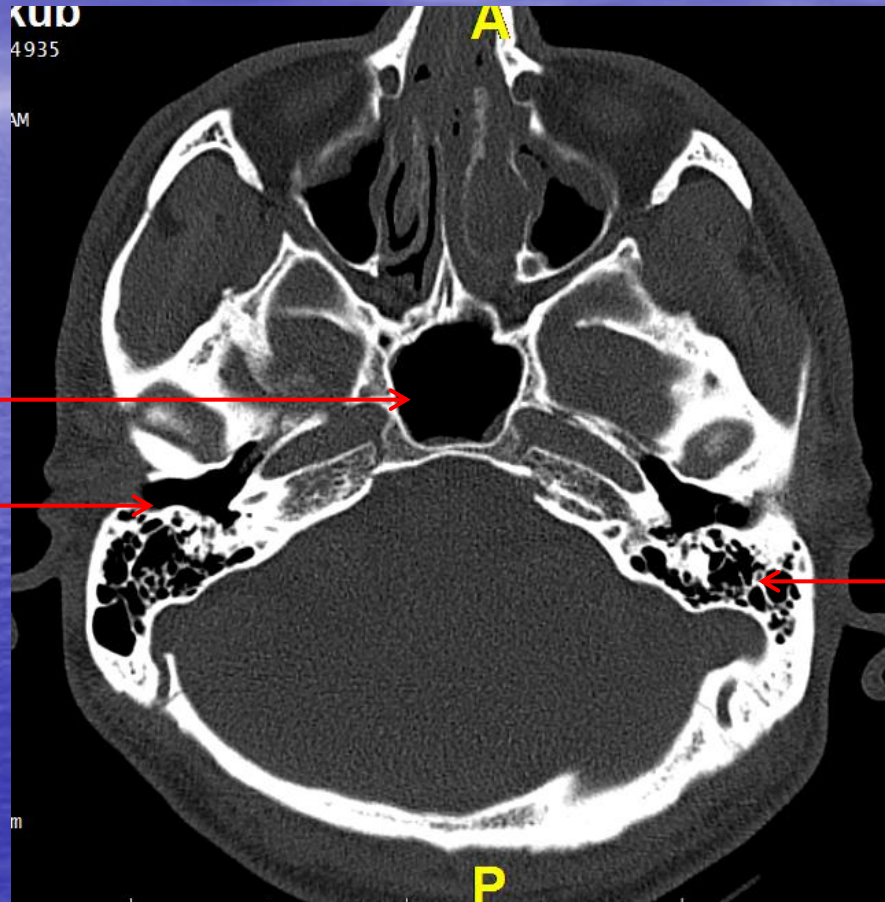


Arcus zygomaticus

Clivus

Canalis caroticus

Foramen jugulare

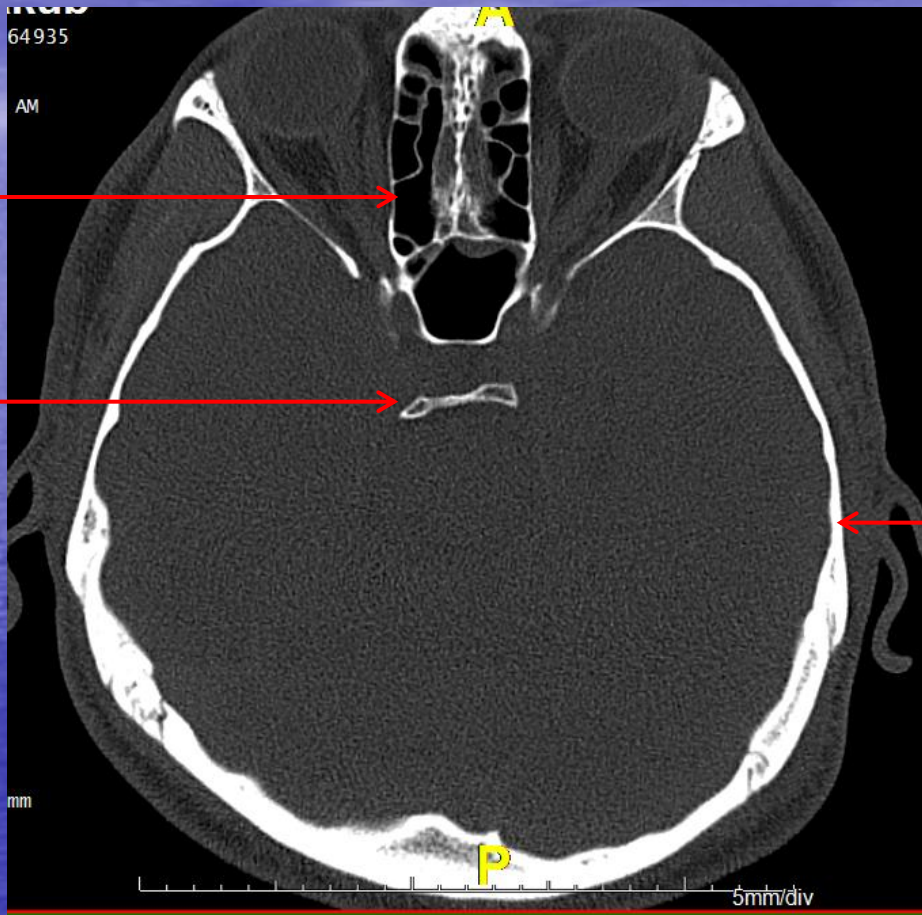


Sinus sphenoidalis

Meatus acusticus  
externus

Cellulae  
mastoideae





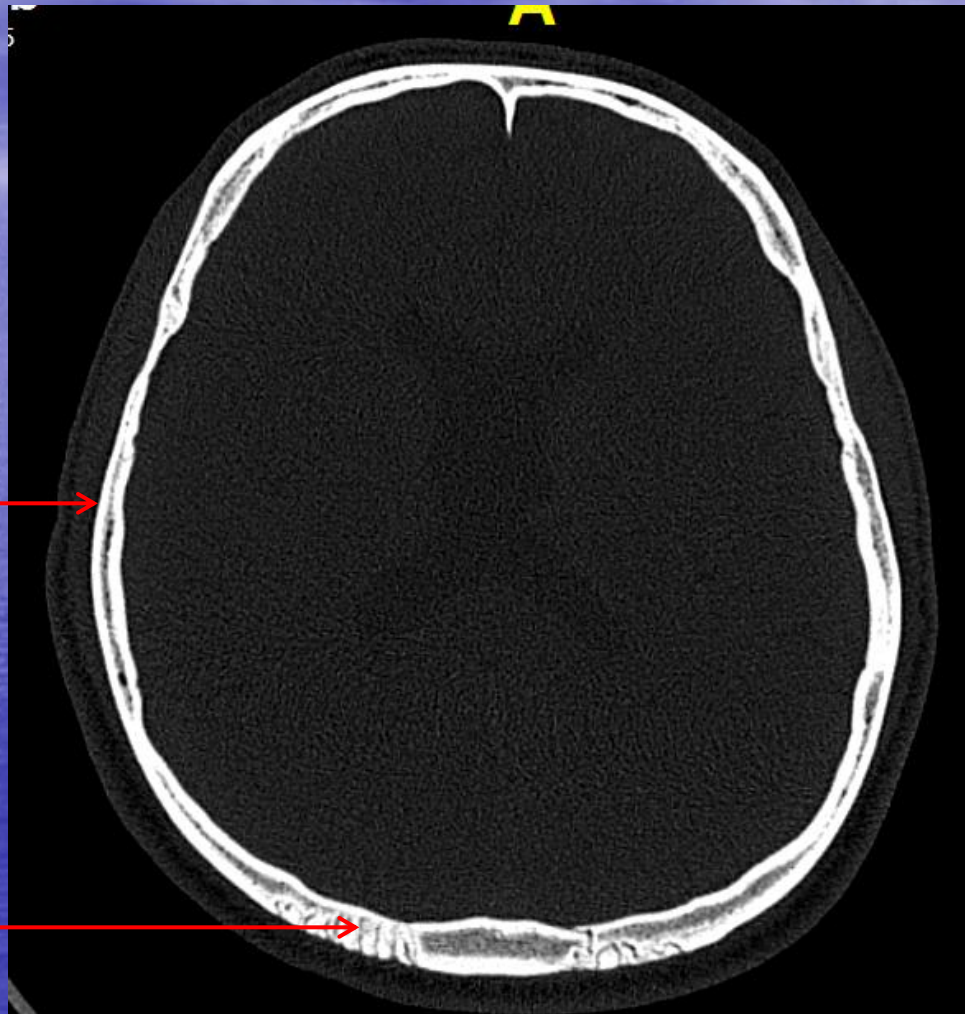
Cellulae ethmoidae

Dorsum sellae

Squama ossis temporalis

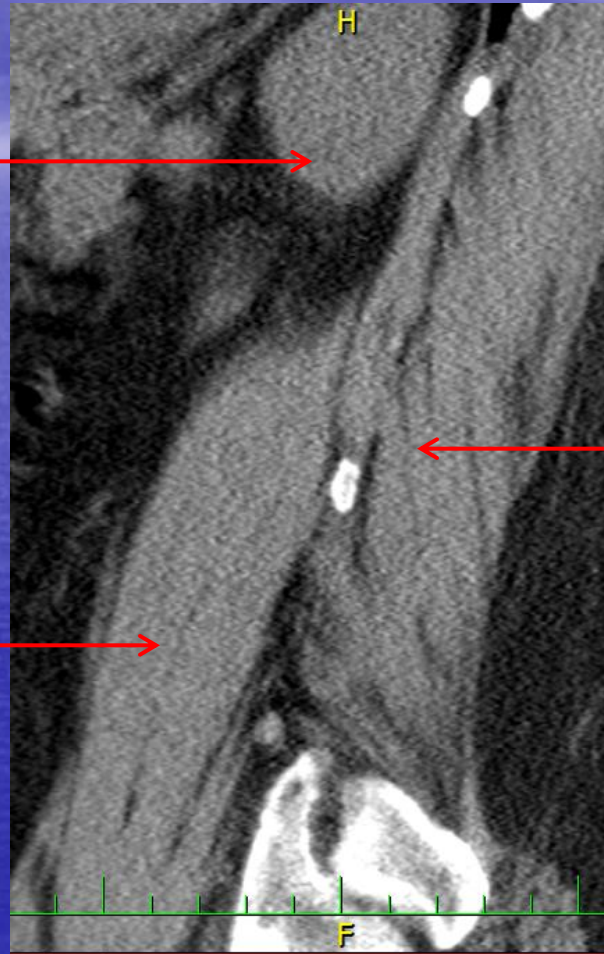


Squama ossis  
parietalis



Sutura lambdoidea

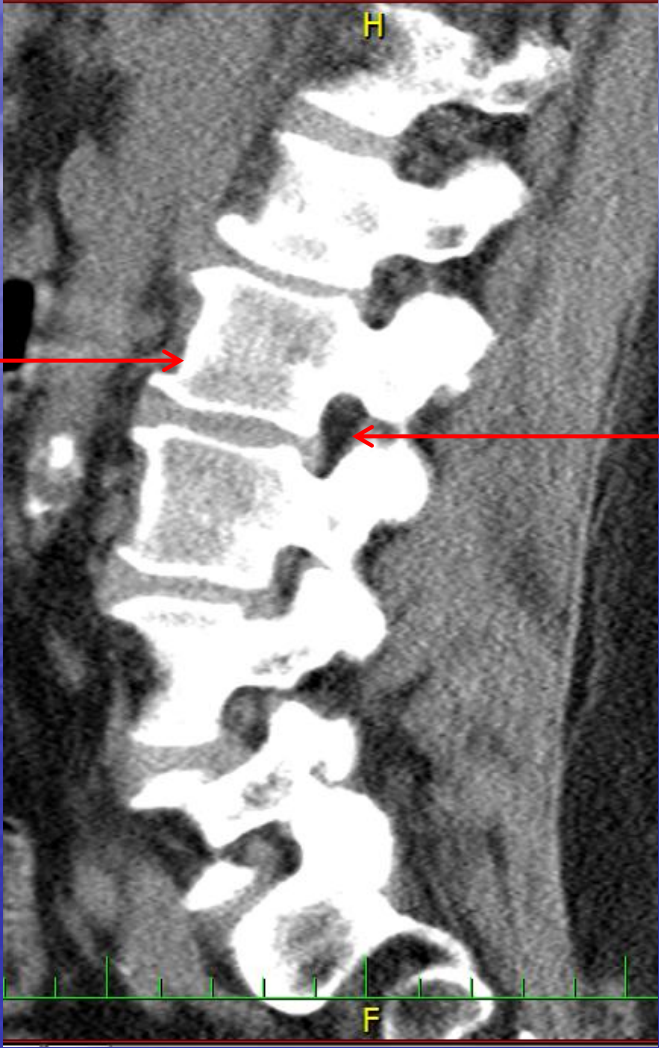
Ren



Musculus psoas

Musculi spinales

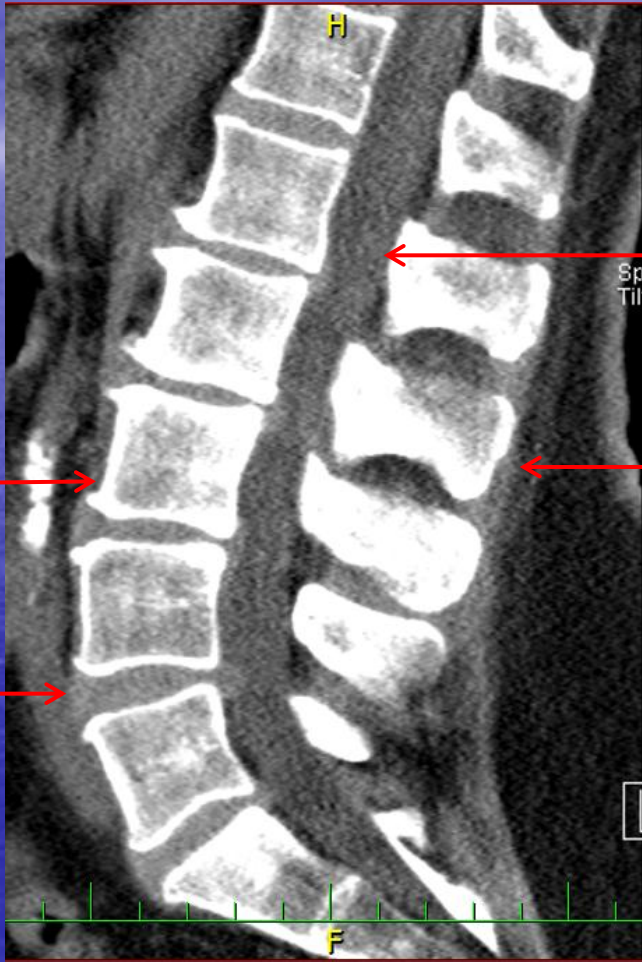




Corpus vertebrae

Foramen intervertebrale





Corpus vertebrae

Discus intervertebralis

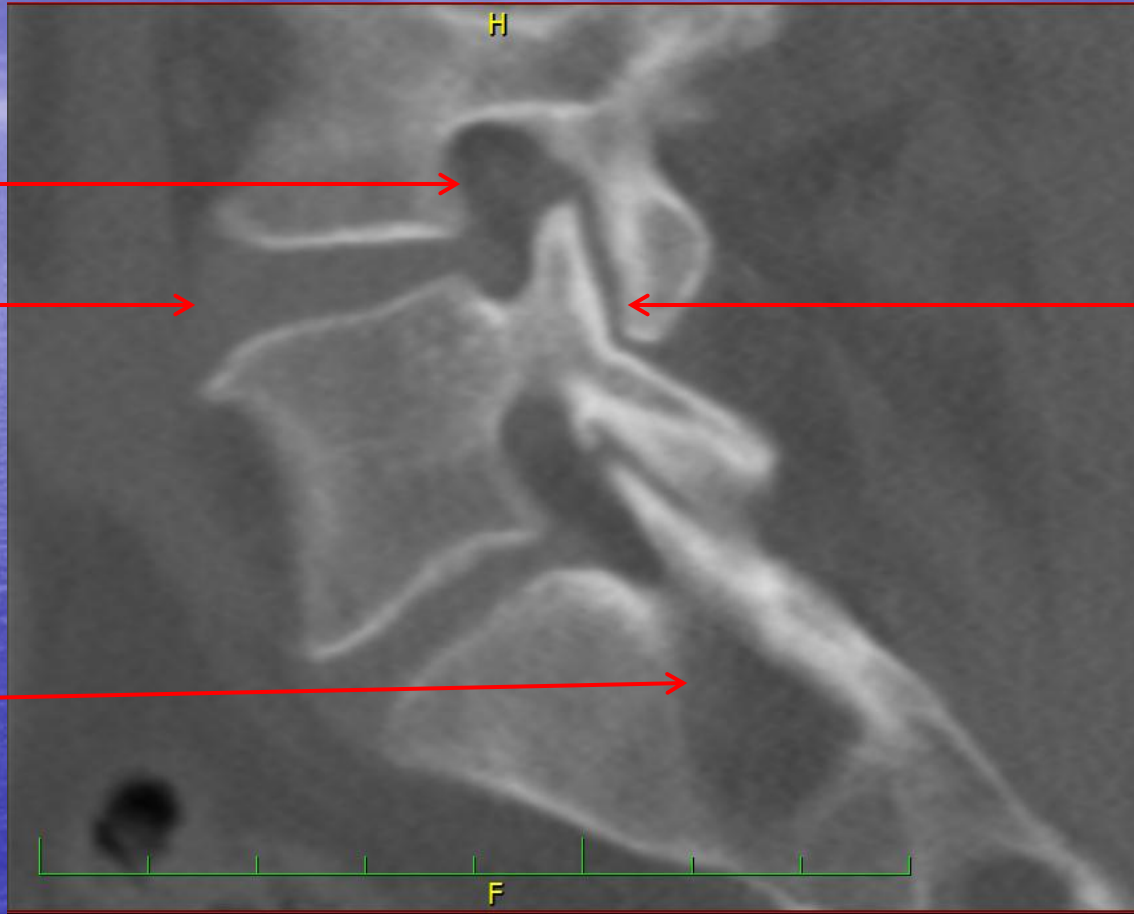
Canalis spinalis

Processus spinosus

Foramen  
intervertebrale

Discus  
intervertebralis

Foramen sacrale



Articulatio  
intervertebrale

A



Corpus vertebrale

Articulatio  
costovertebrale

Processu spinosus

Processus transversus

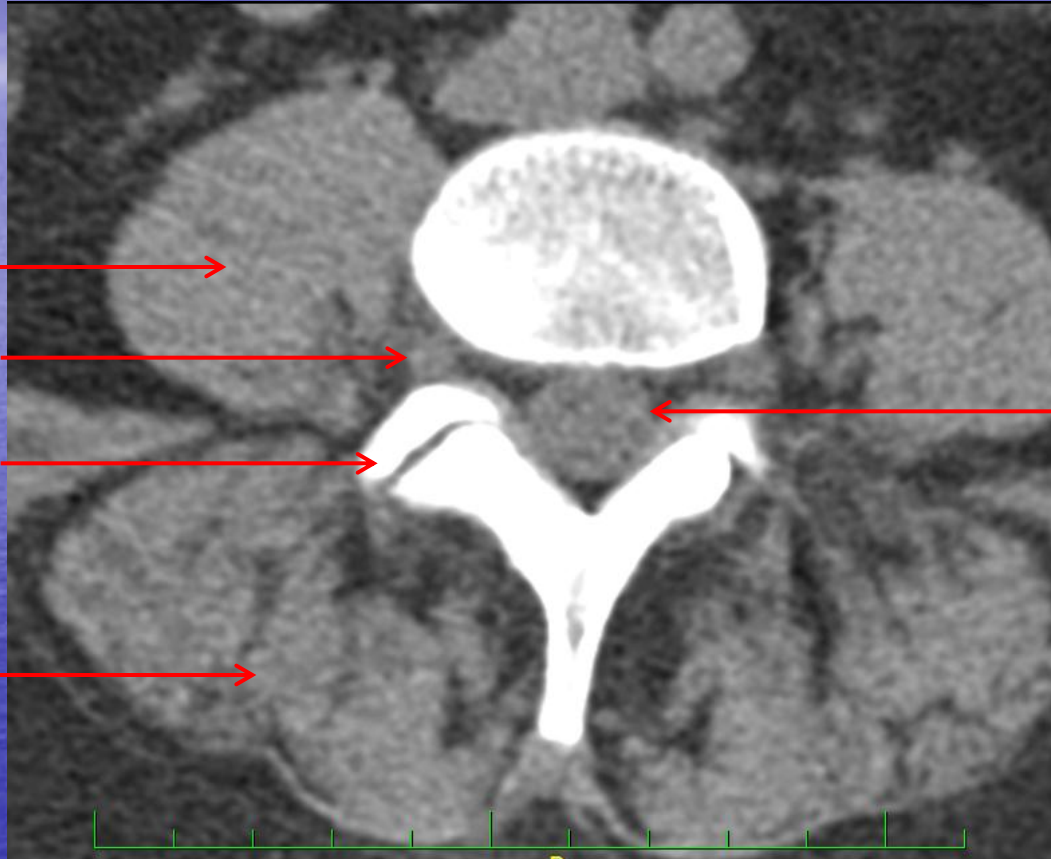


Musculus psoas

Nervus spinalis

Articulatio  
intervertebrale

Musculi spinales



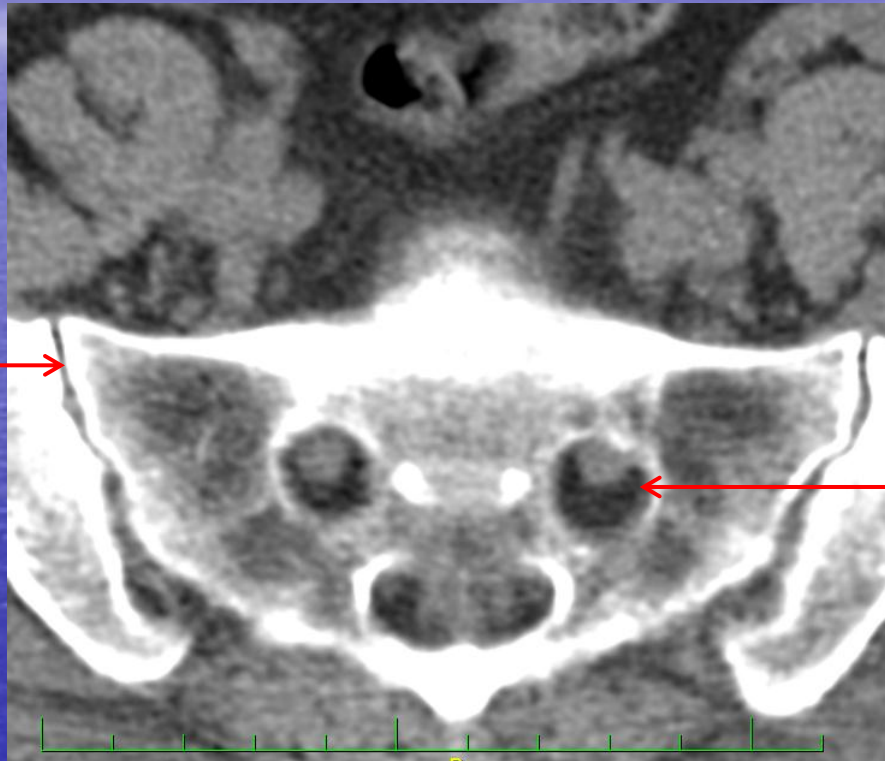
Saccus durae  
matris



Ligamentum flavum

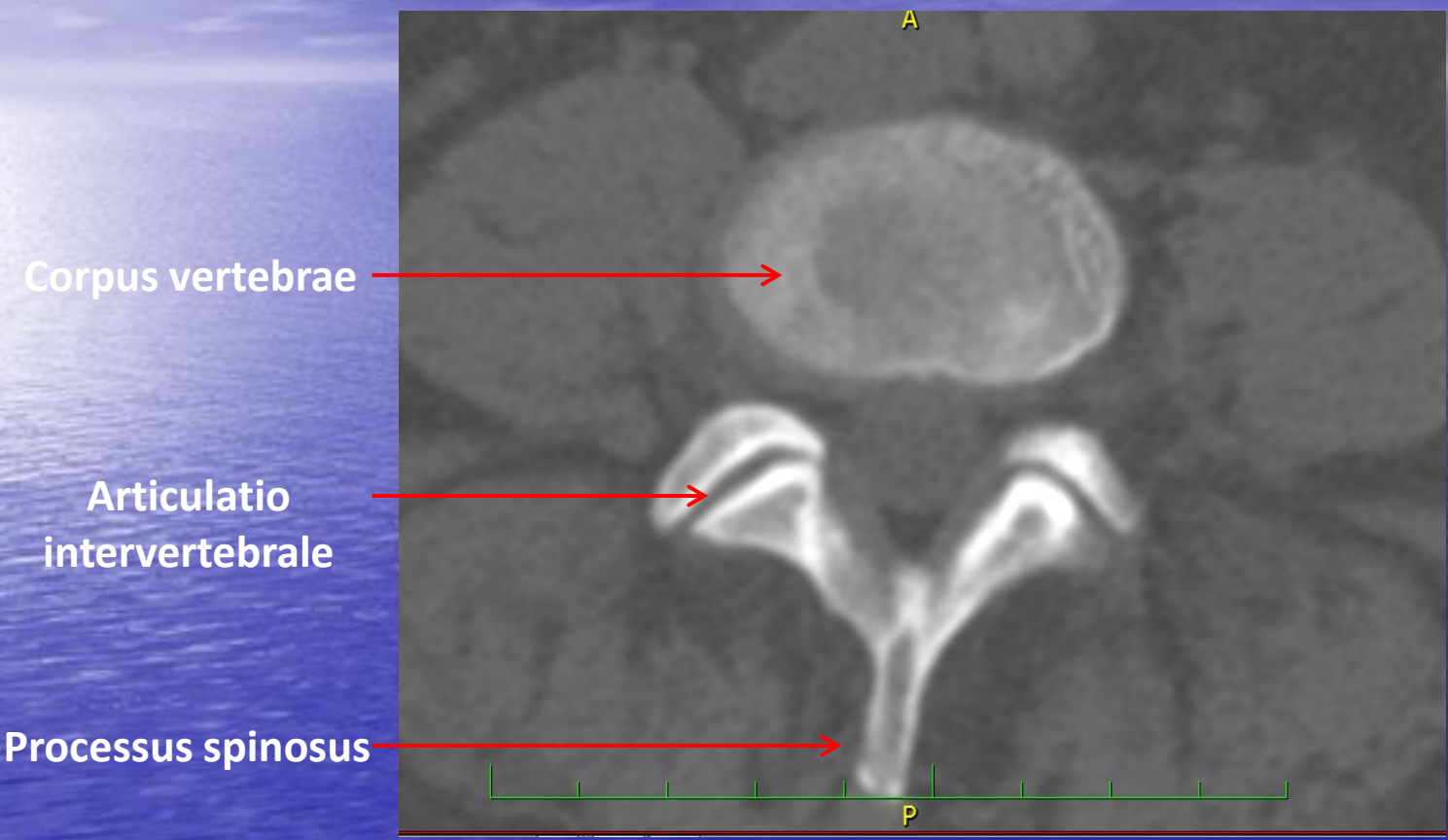
Discus  
intervertebralis

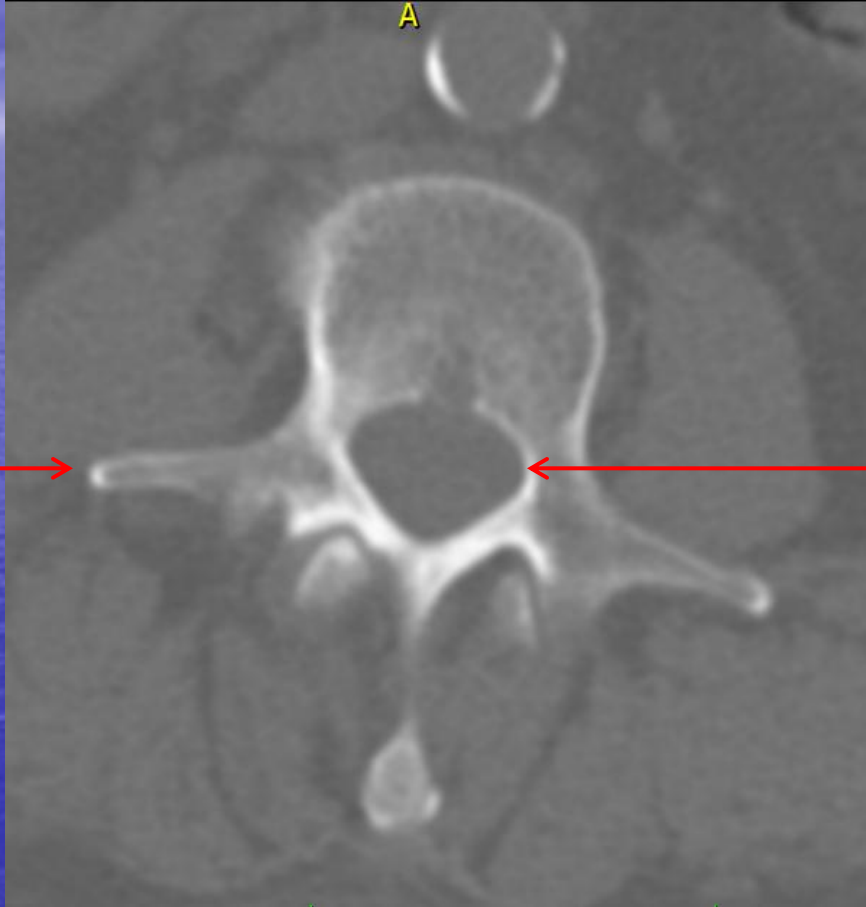
Articulatio  
sacroiliaca



Foramen sacrale







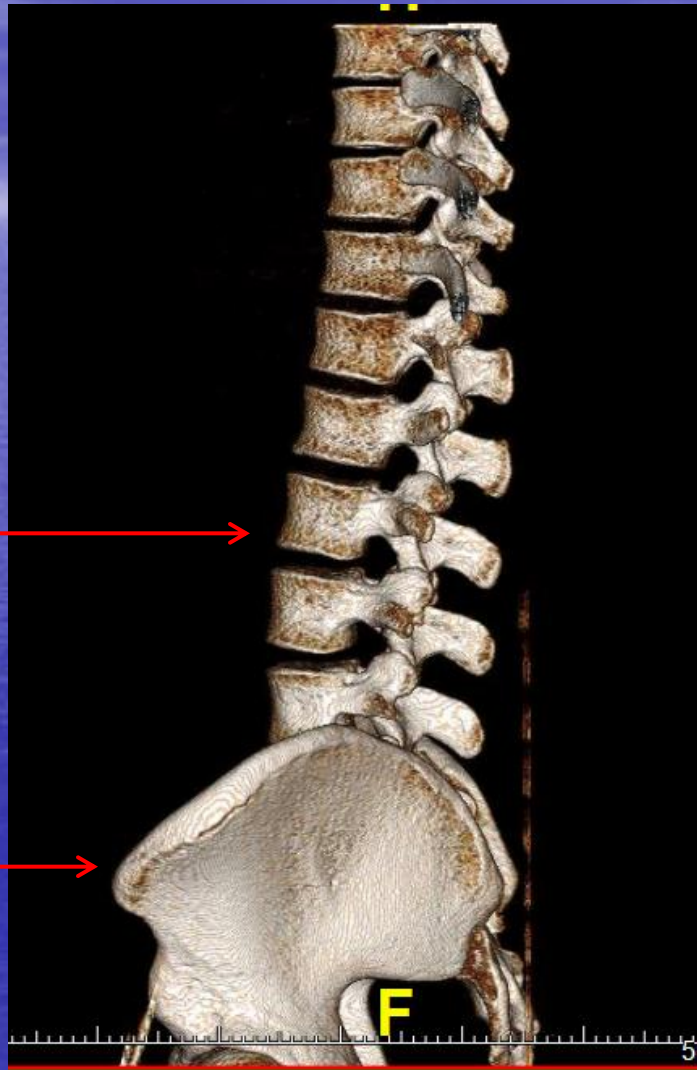
Processus costarius

Canalis spinalis

Vertebrae lumbales



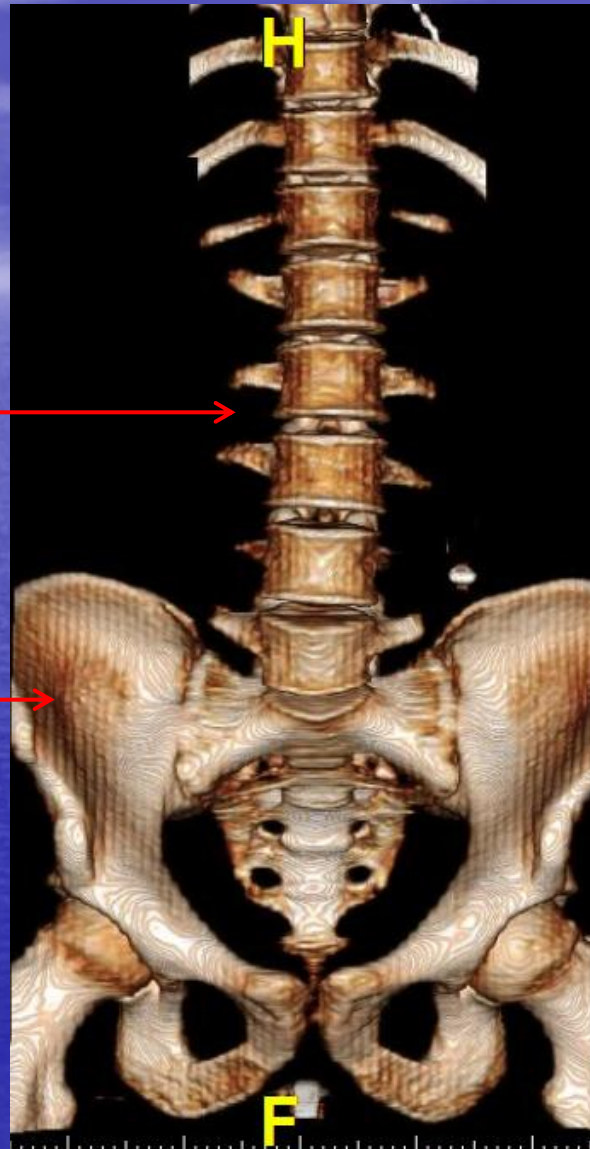
Pelvis





Vertebrae lumbales

Pelvis





Corpus sterni

Vertebrae thoracicae

Vertebrae lumbales



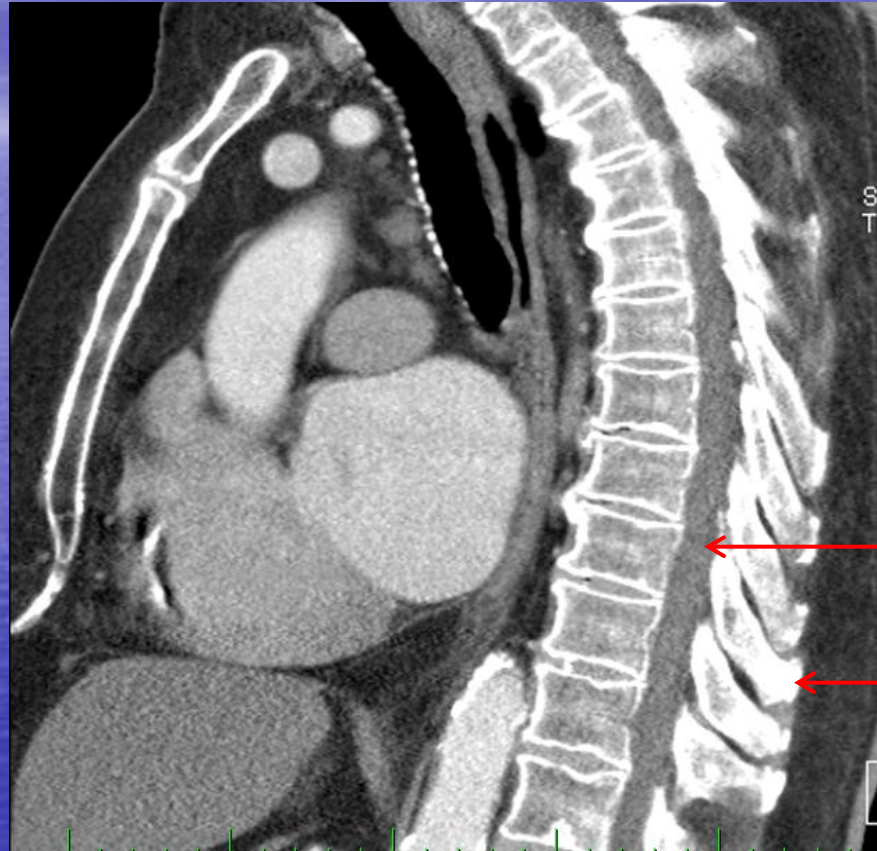
Manubrium sterni



Foramen intervertebrale

Articulatio  
intervertebrale





**Canalis spinalis**

**Processus spinosus**

Arteria carotis  
externa

Arteria carotis  
interna

Truncus  
brachiocephalicus

Arcus aortae

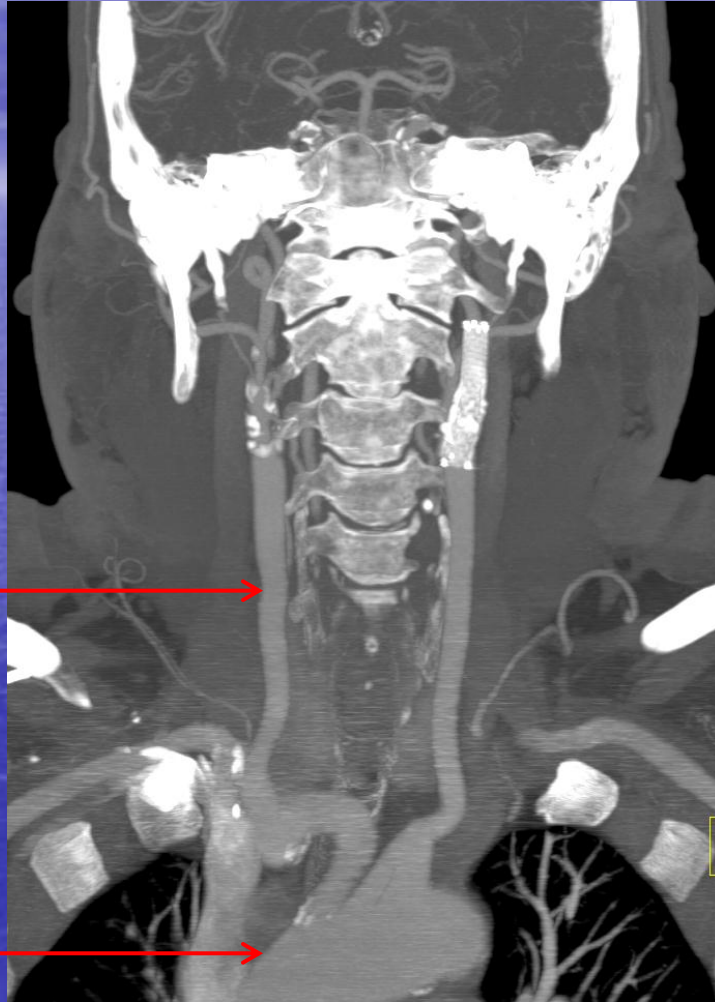


Arteria subclavia

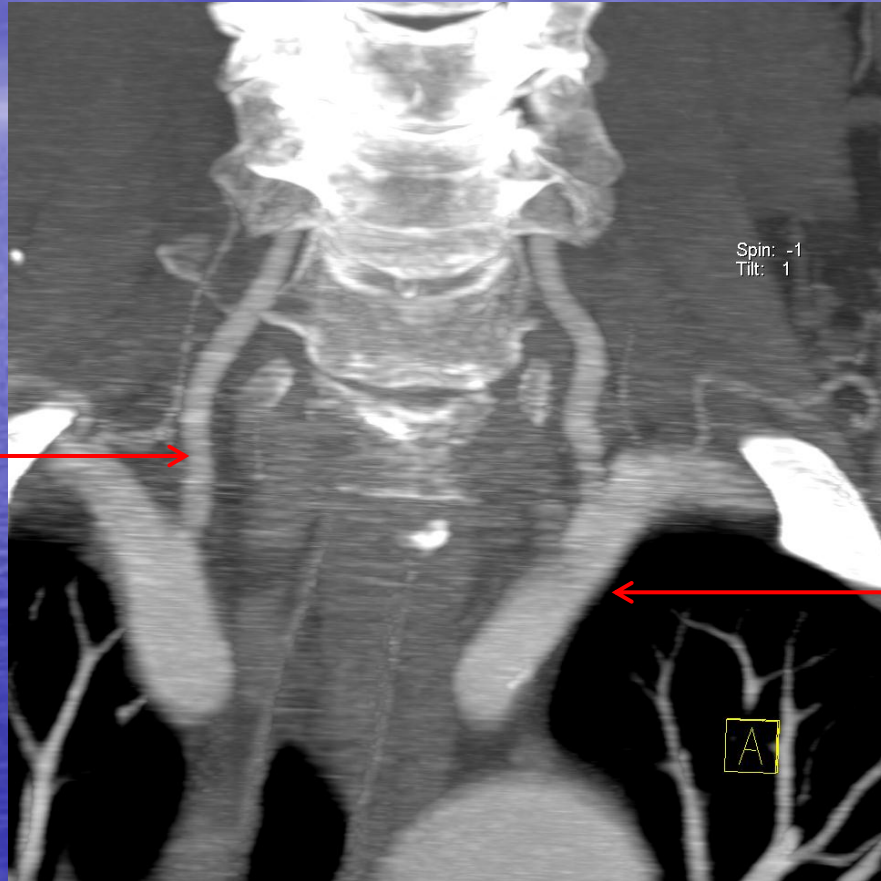


Arteria carotis  
communis

Arcus aortae







Spin: -1  
Tilt: 1

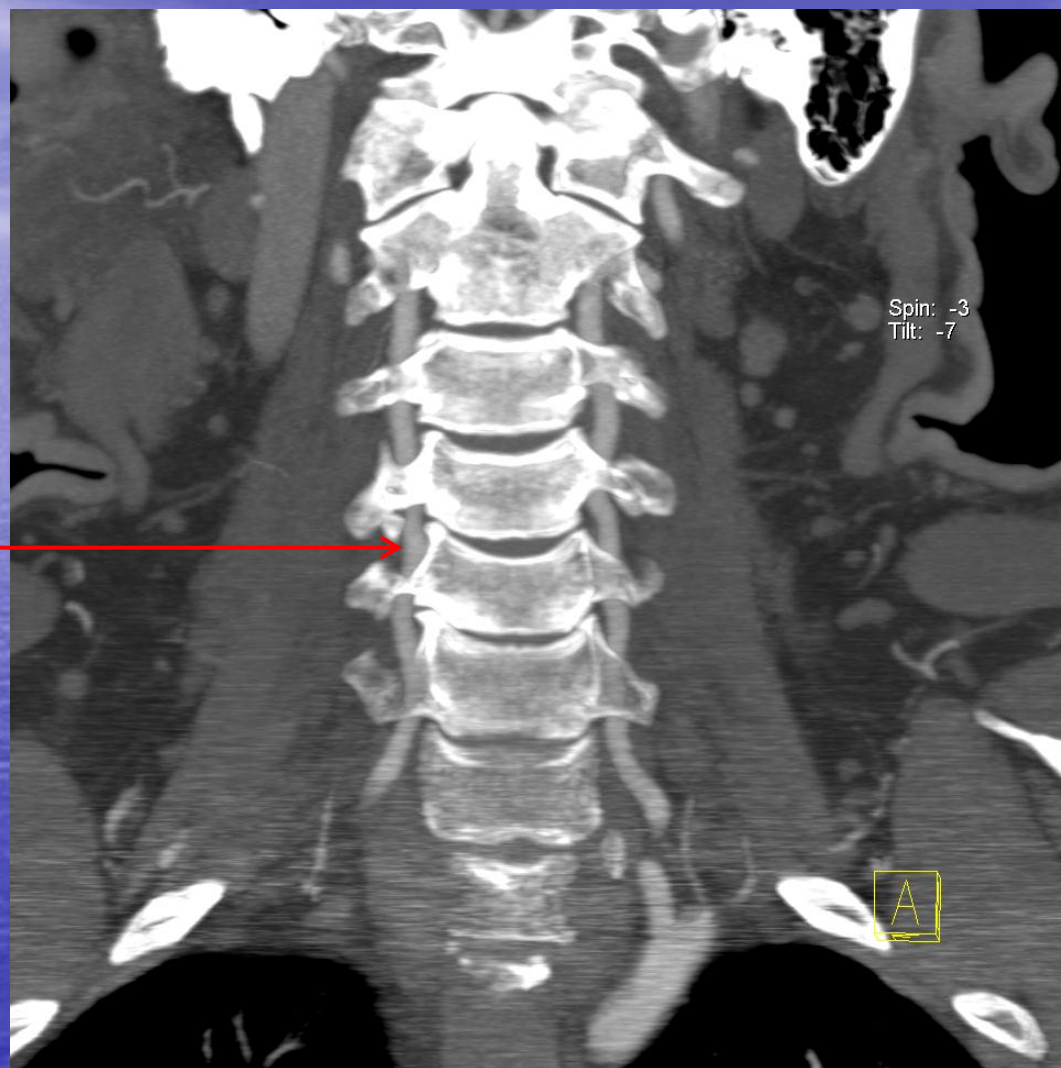
Arteria vertebralis  
dx.



Arteria subclavia sin.



Arteria  
vertebralis dx.



1

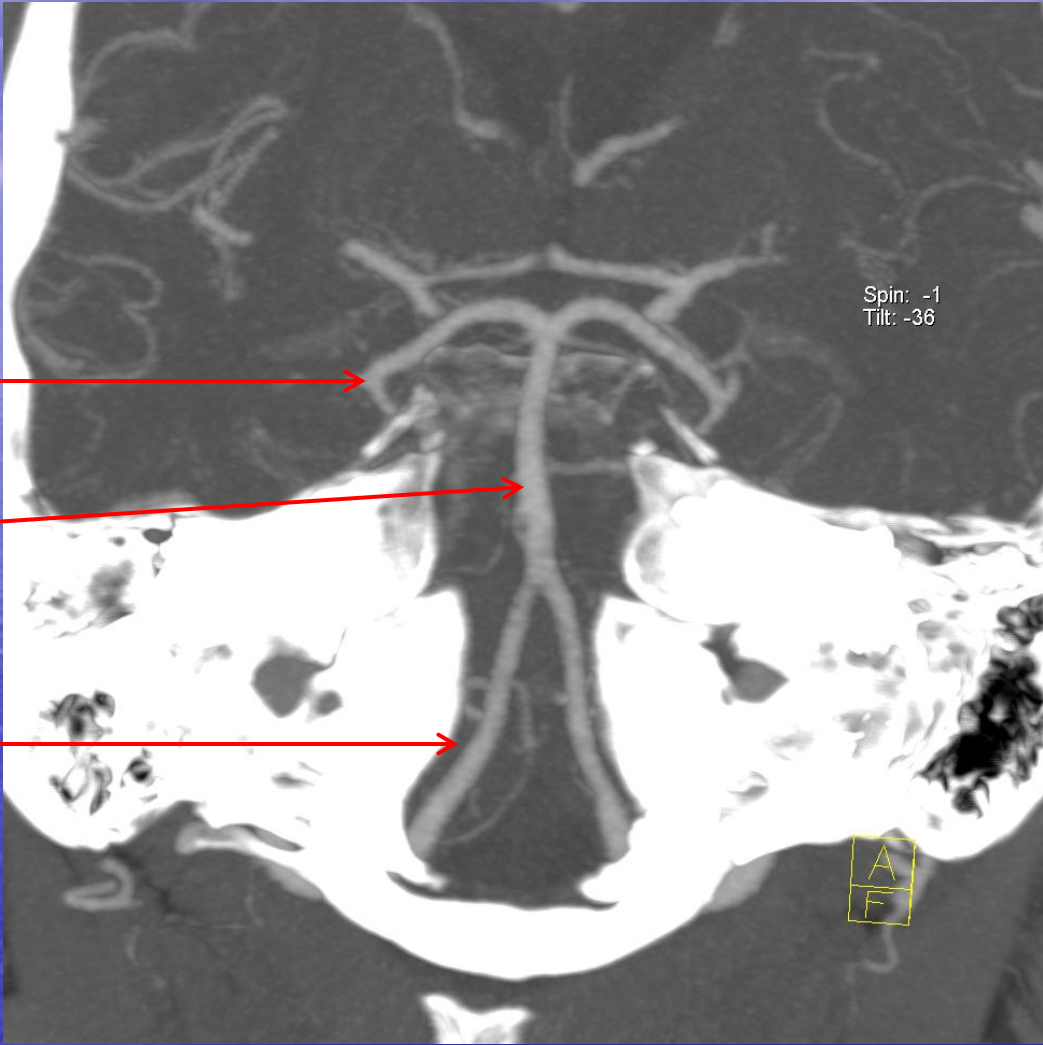
Arteria carotis interna



Arteria carotis communis







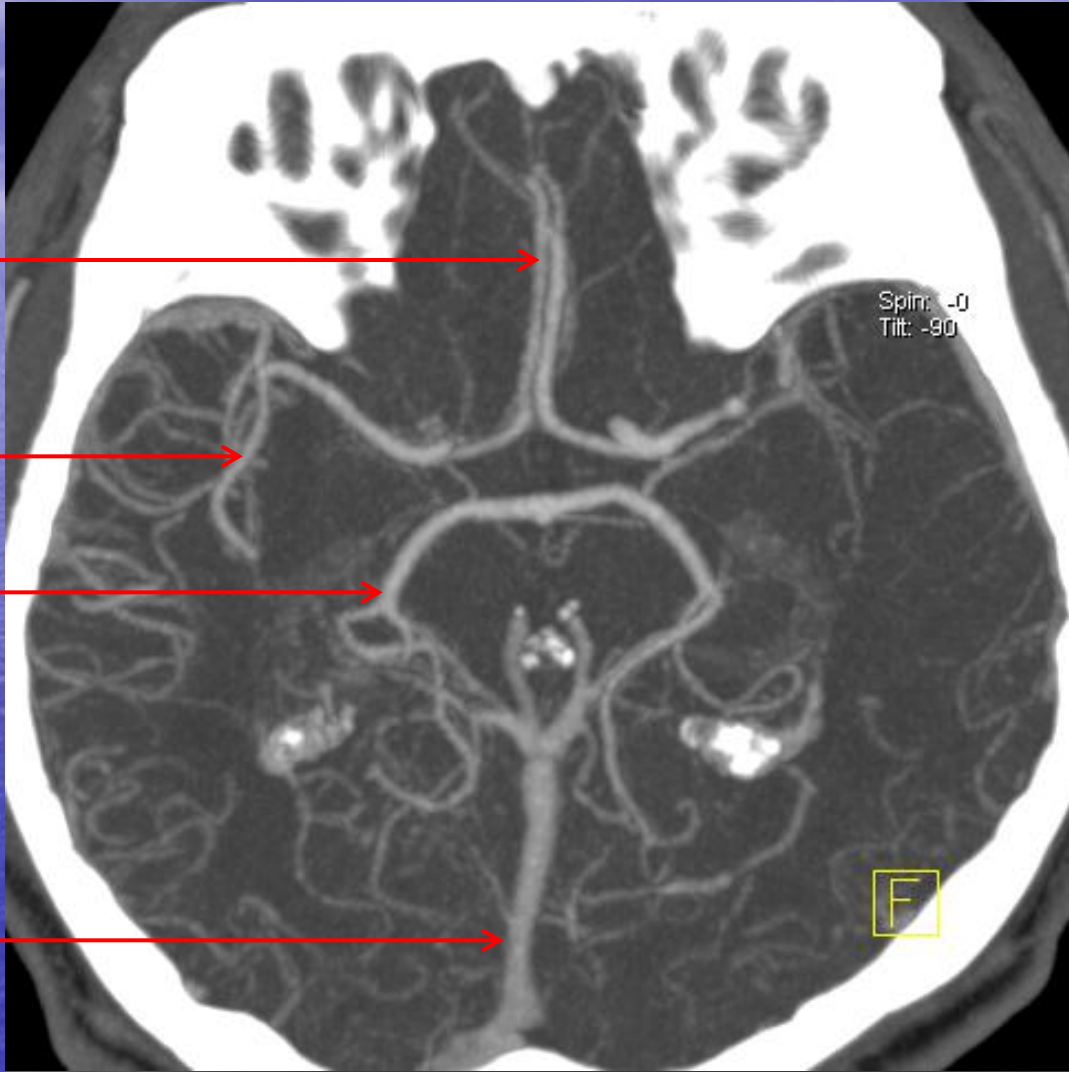
Spin: -1  
Tilt: -36

Arteria cerebri posterior

Arteria basilaris

Arteria vertebralis dx.

A  
F



Arteria cerebri anterior

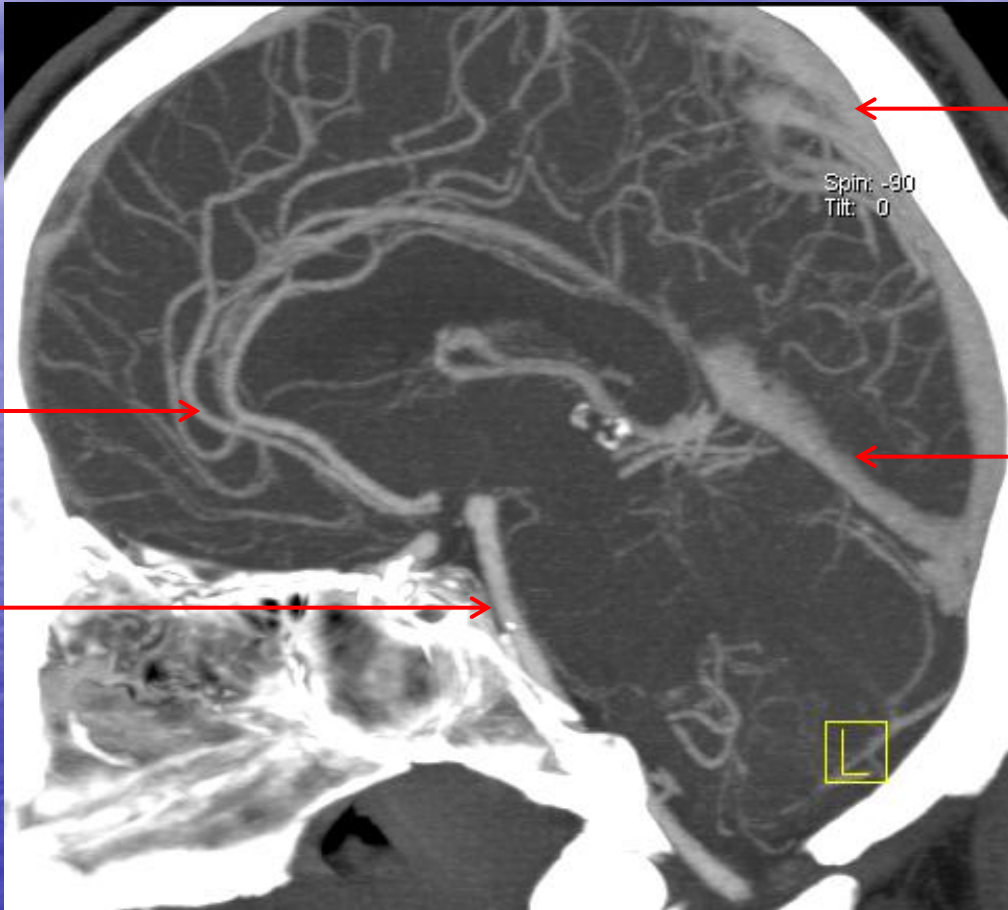
Arteria cerebri media

Arteria cerebri posterior

Sinus rectus

Spin: -90  
Tilt: -90

F



Arteria cerebri anterior

Arteria basilaris

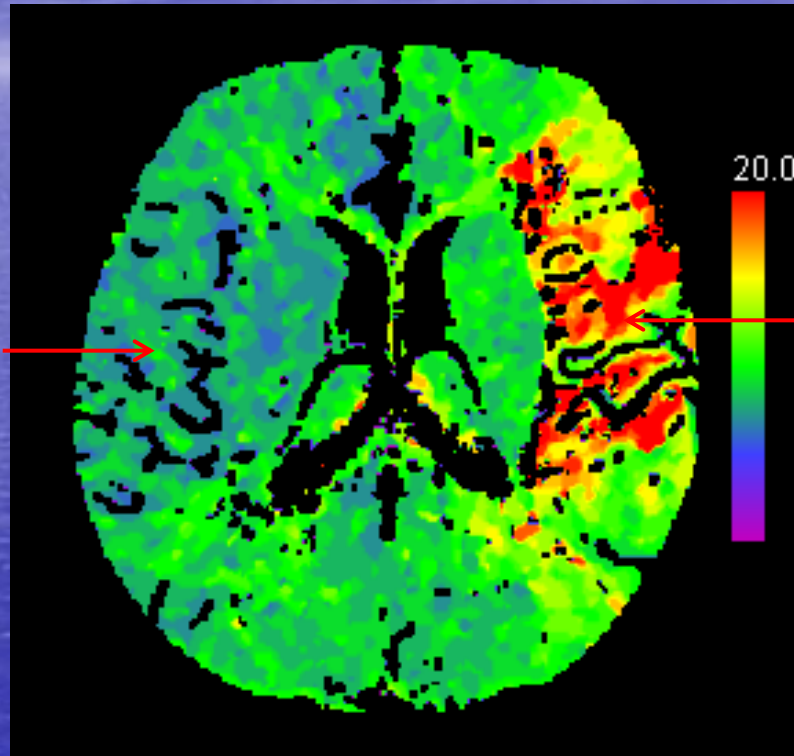
Sinus sagittalis superior

Sinus rectus



# TTP mapa

Oblast normální perfuze mozku



Oblast hypoperfuzie mozku



Conus medullaris

Cauda equina

Saccus durae matris  
spinalis

Degenerativní změny disku

Conus medullaris

Cauda equina

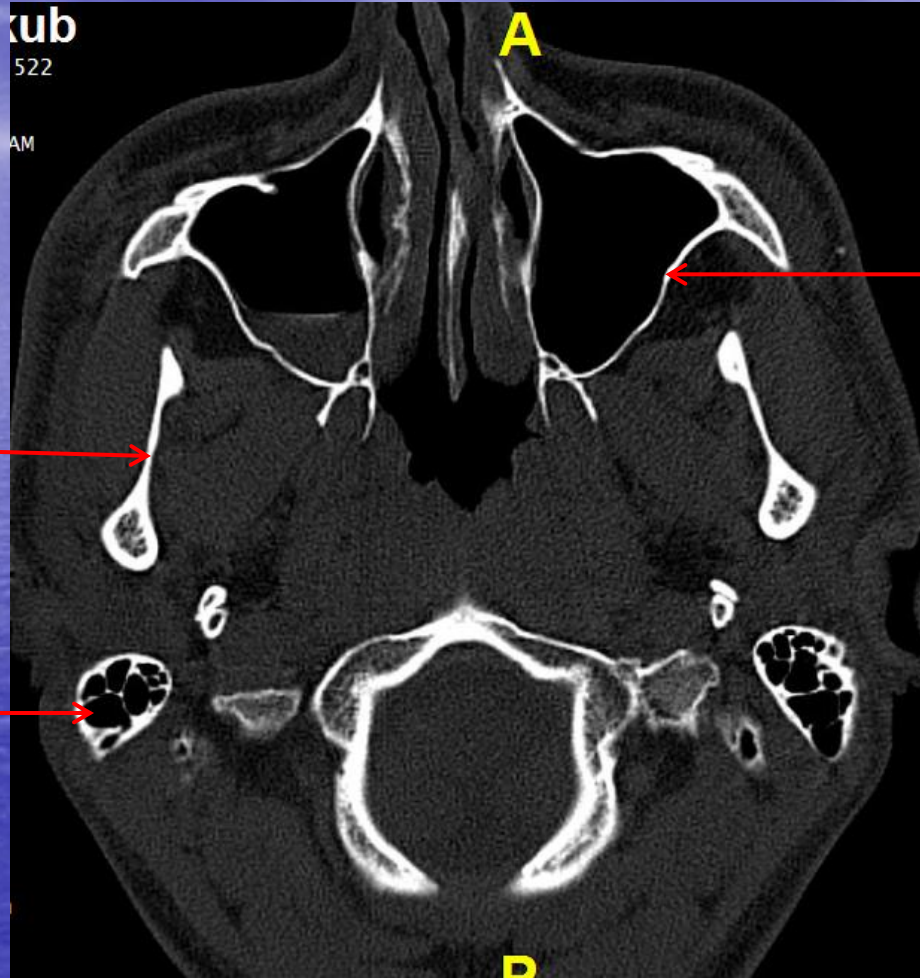
Saccus durae matris  
spinalis





Saccus durae matris  
spinalis





A

Sub

522

AM

B

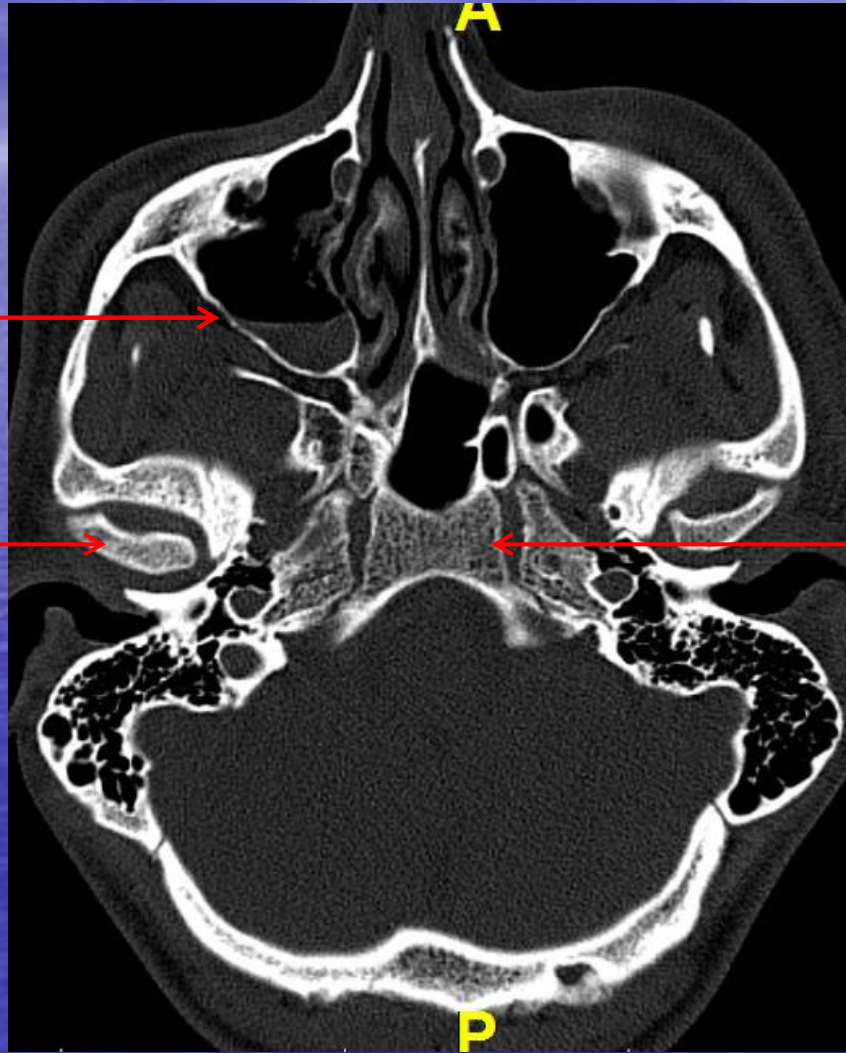
B

Sinus maxillaris

Ramus mandibulae

Cellulae mastoideae





Sinus maxillaris

Caput mandibulae

Clivus

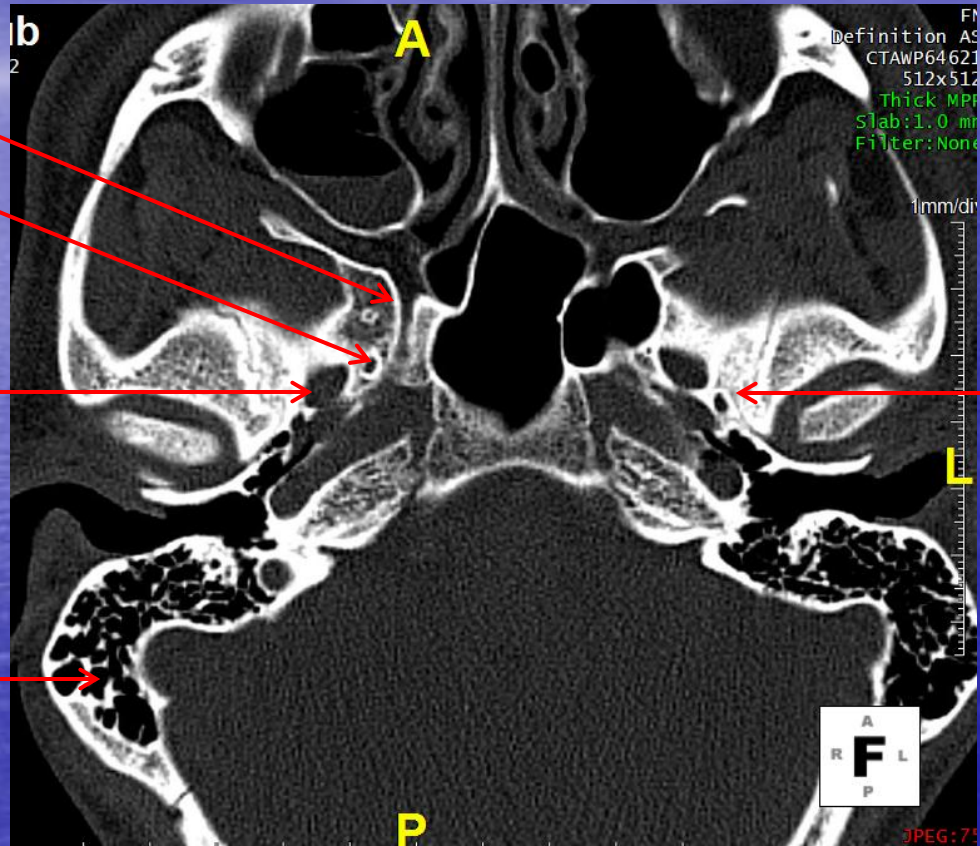


Canalis pterygoideus

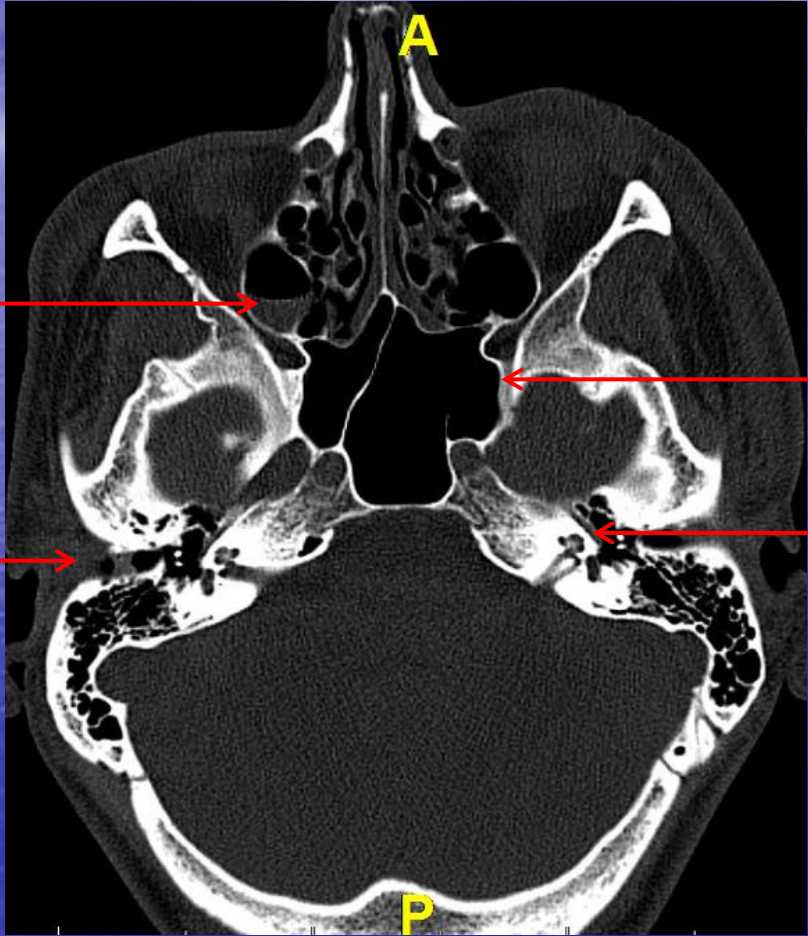
Foramen rotundum

Foramen ovale

Cellulae mastoideae



Foramen spinosum



Cellulae ethmoidales

Meatus acusticus  
externus

Sinus sphenoidalis

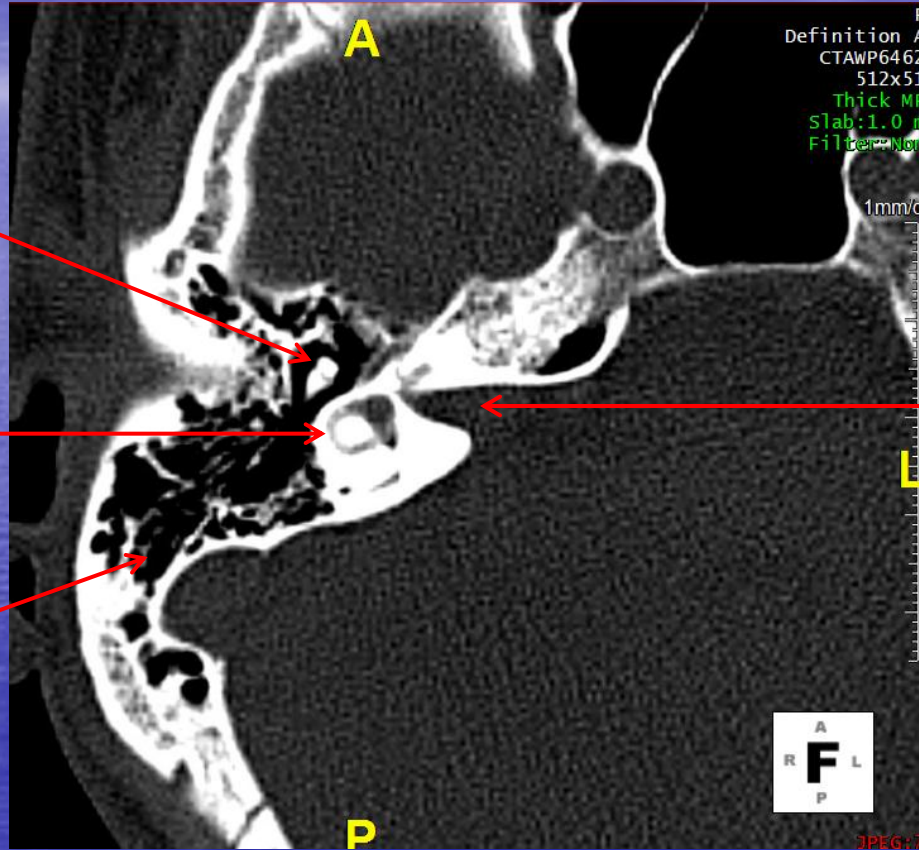
Cochlea



Ossicula auditoria

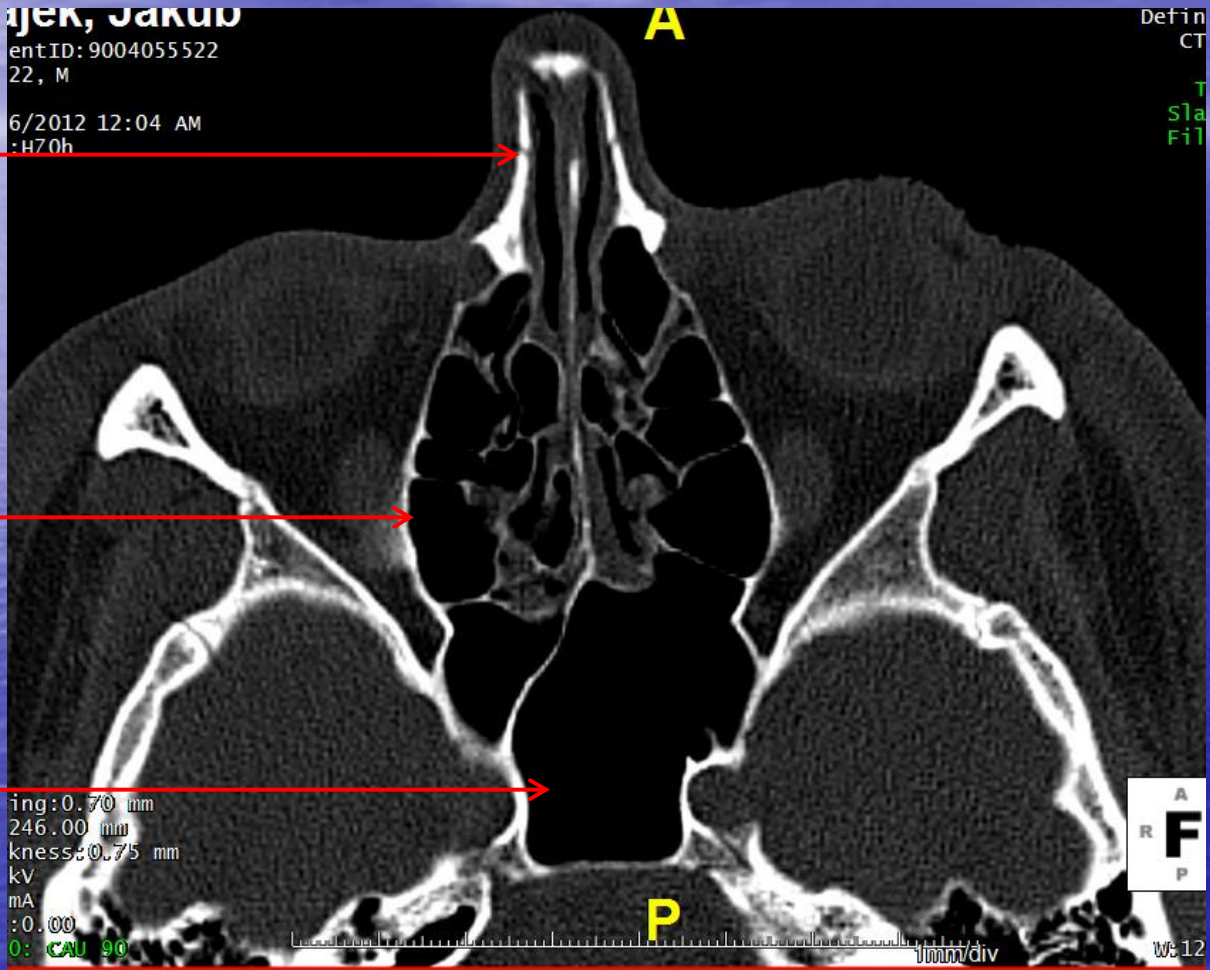
Labyrinth

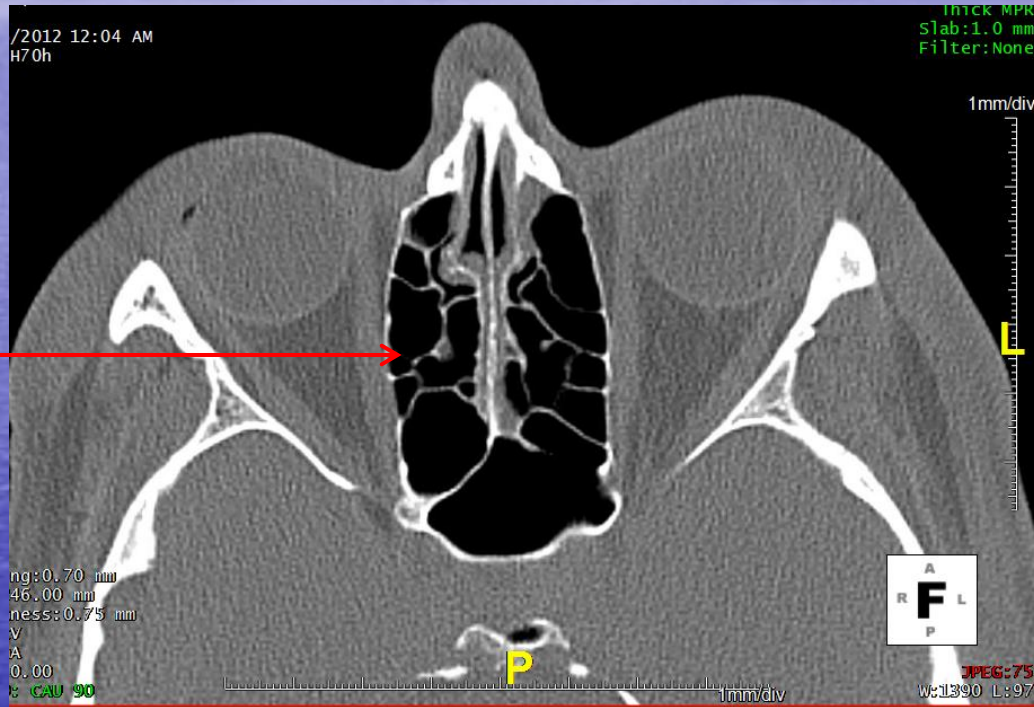
Cellulae mastoideae



Meatus acusticus internus

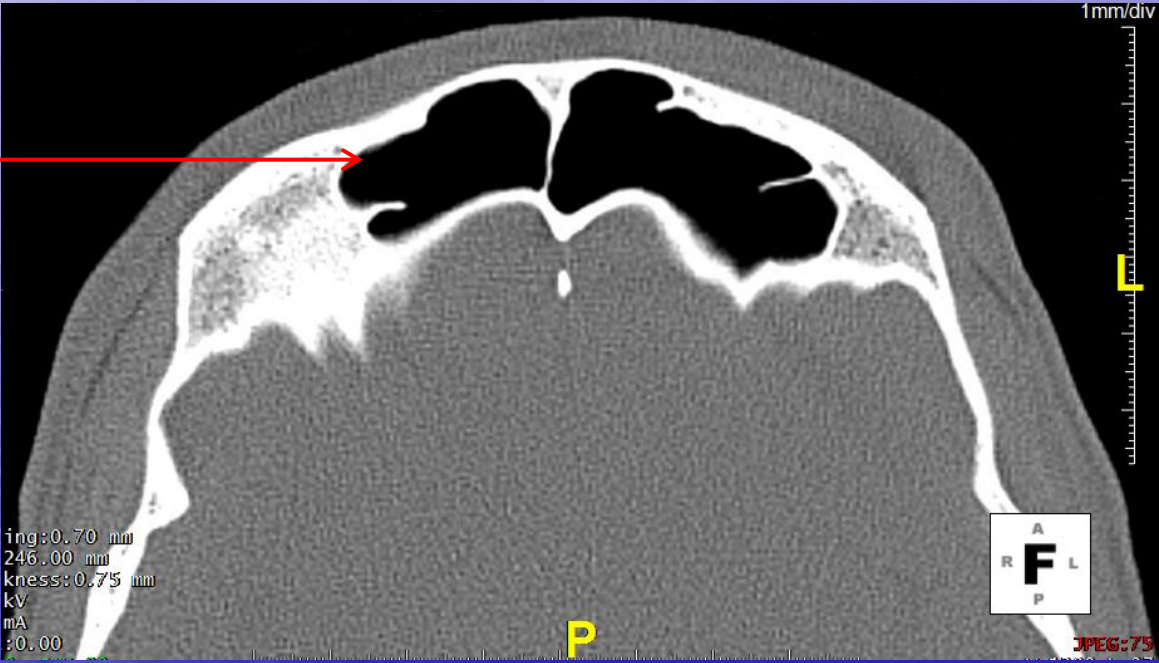






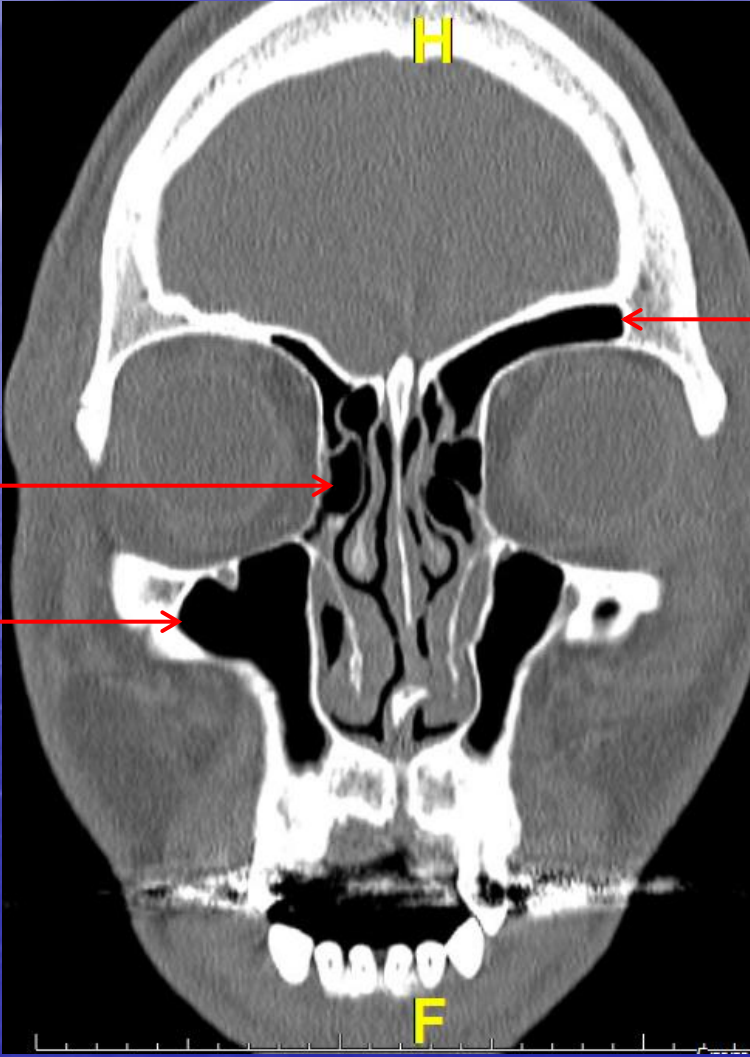
Cellulae  
ethmoidales





Sinus frontalis





H

Sinus frontalis

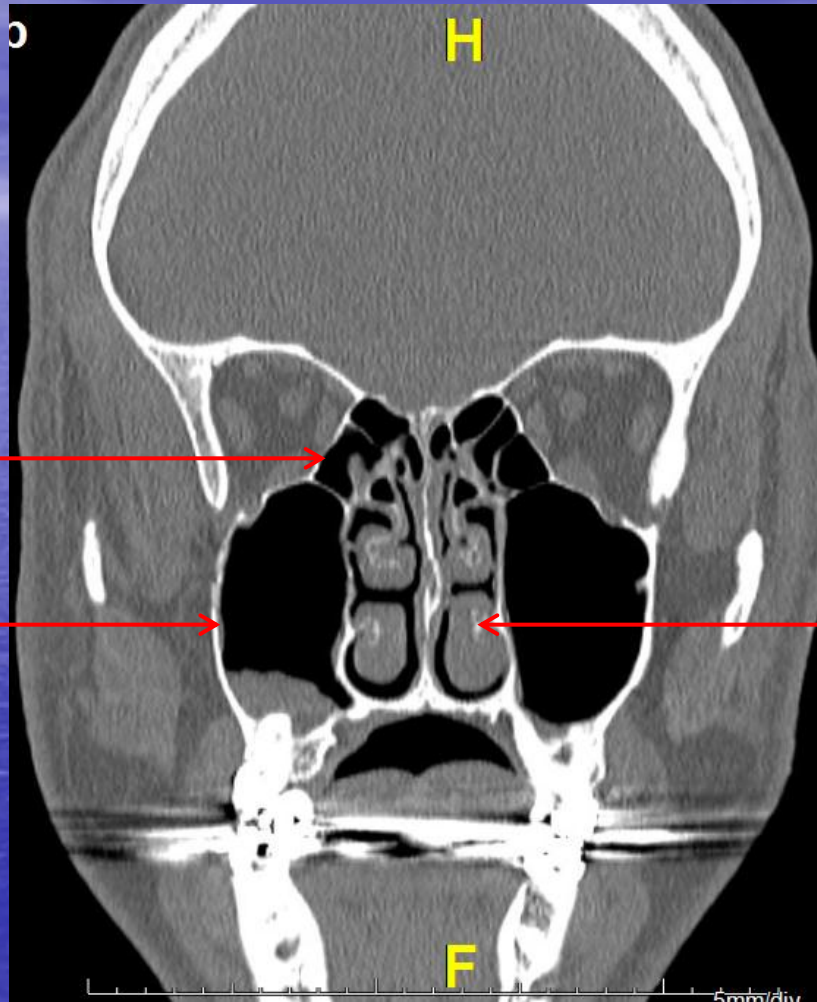
Cellulae ethmoidales

Sinus maxillaris

F

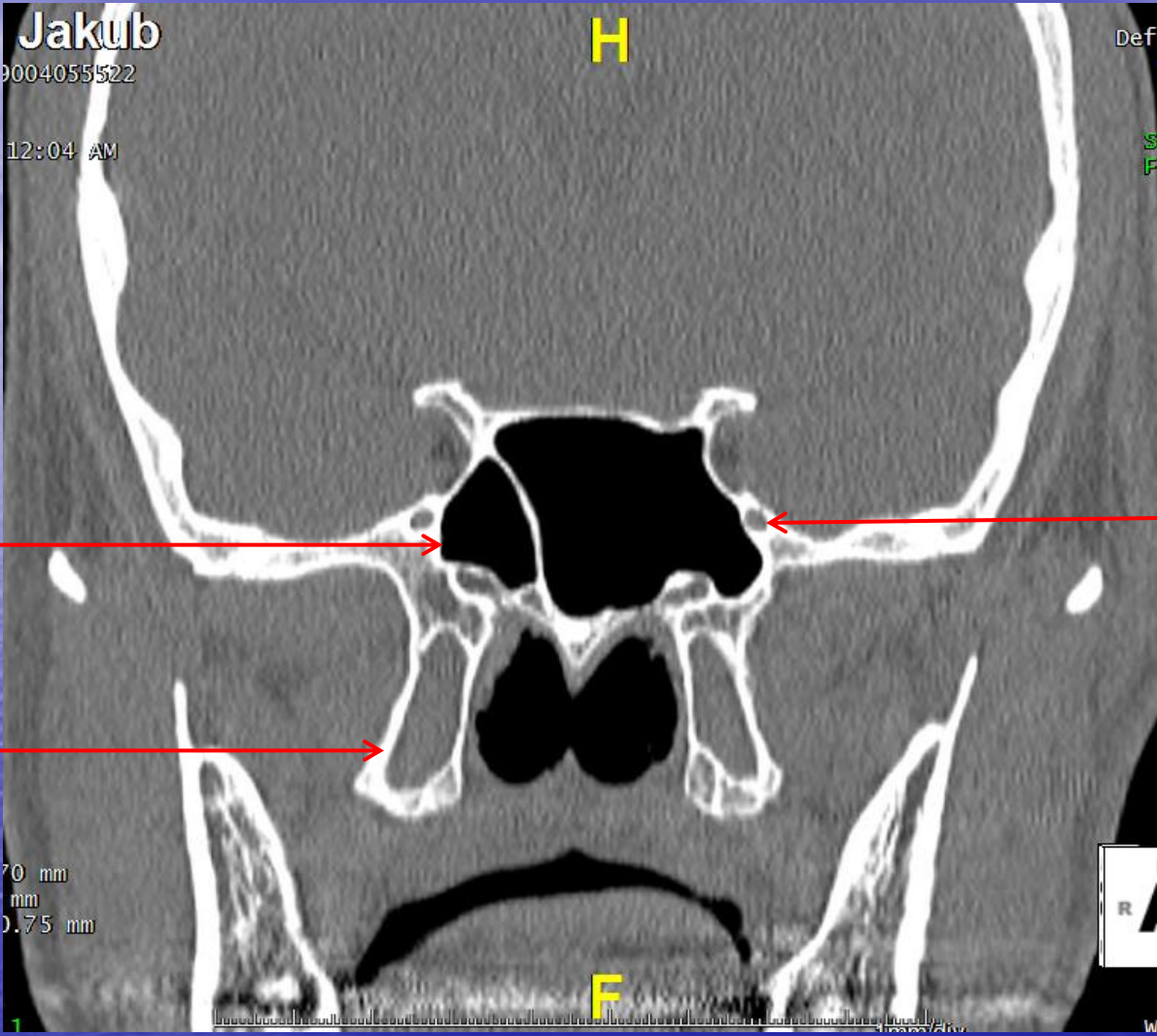
Lamina papyracea

Sinus maxillaris



Concha nasalis inferior





Jakub

9004055522

12:04 AM

H

Def

S  
F

Sinus  
sphenoidalis



Foramen rotundum



Ossa  
pterygoidea



70 mm  
mm  
0.75 mm

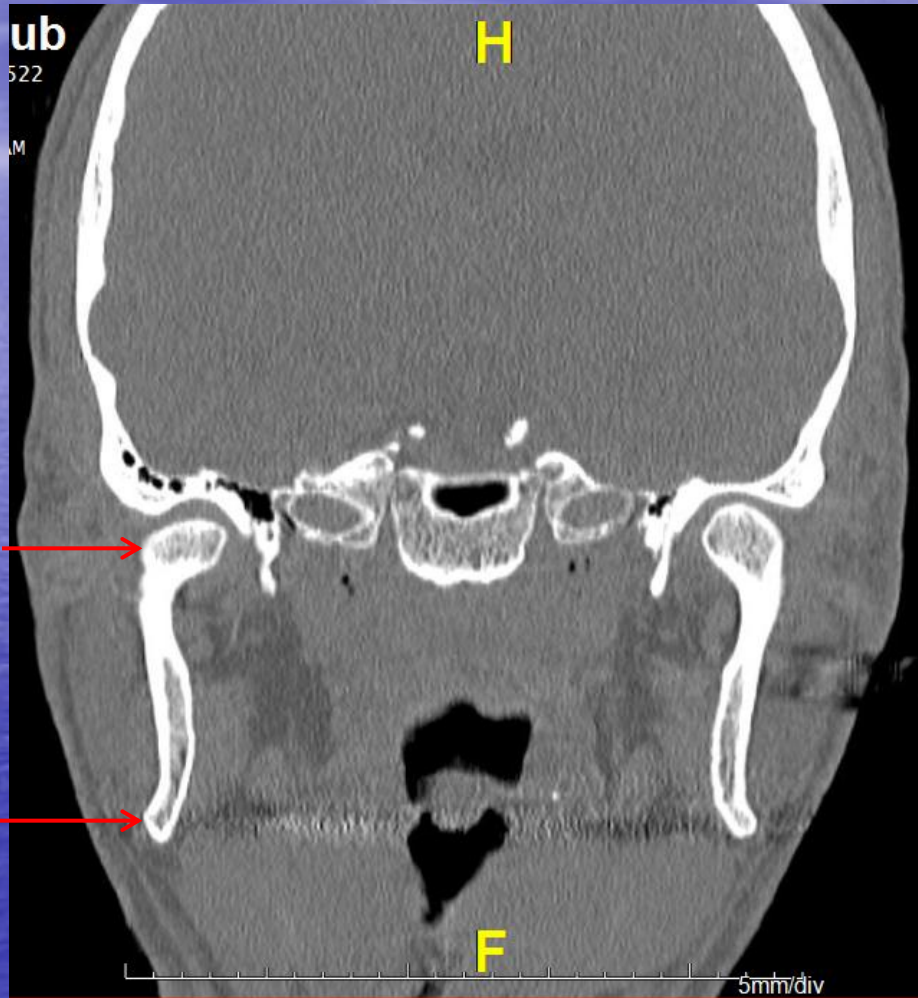
R  
W

F

1

4000/500





Ossa nasalia



Sinus sphenoidalis



Palatum durum



Mandibula

