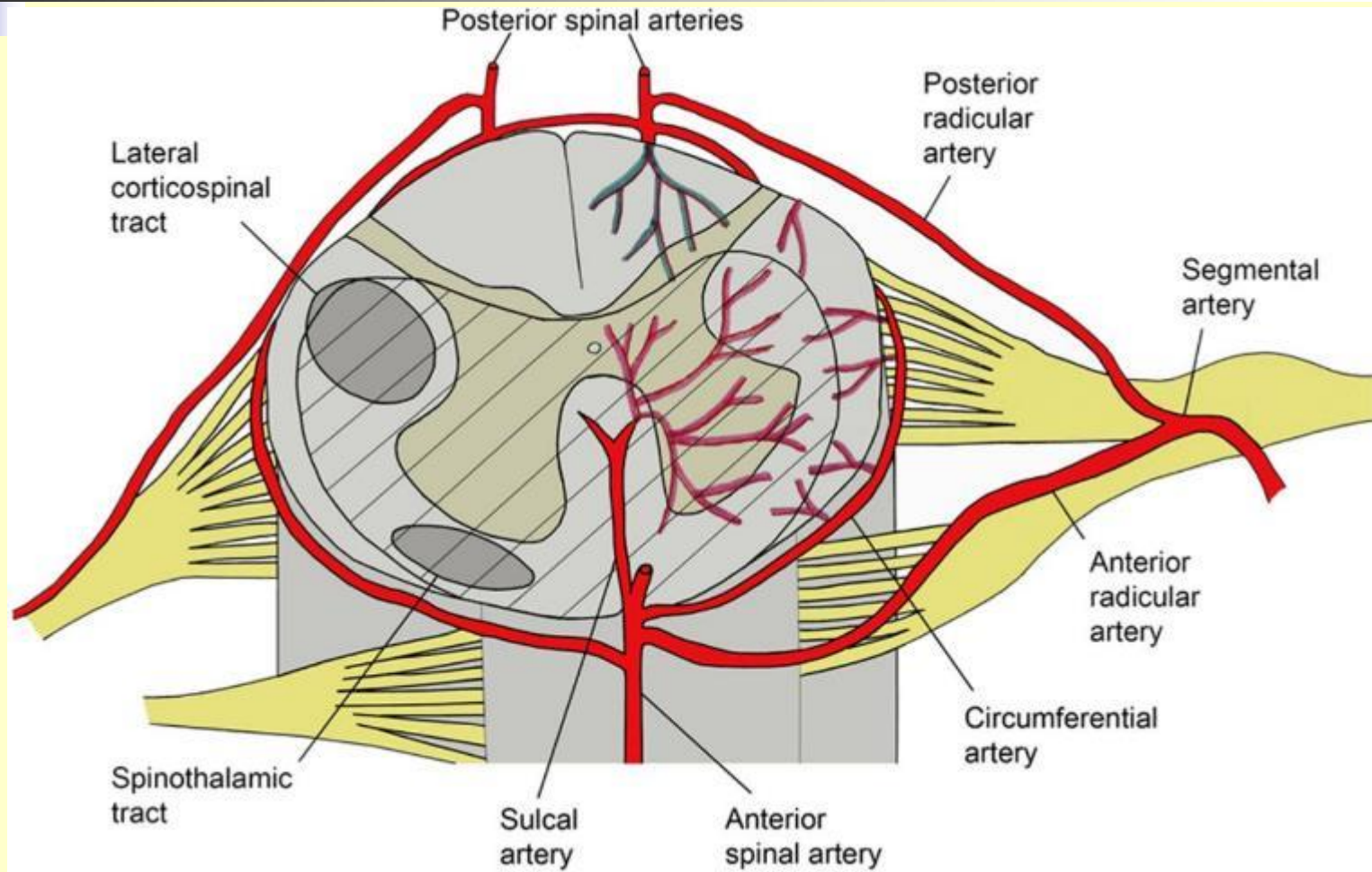
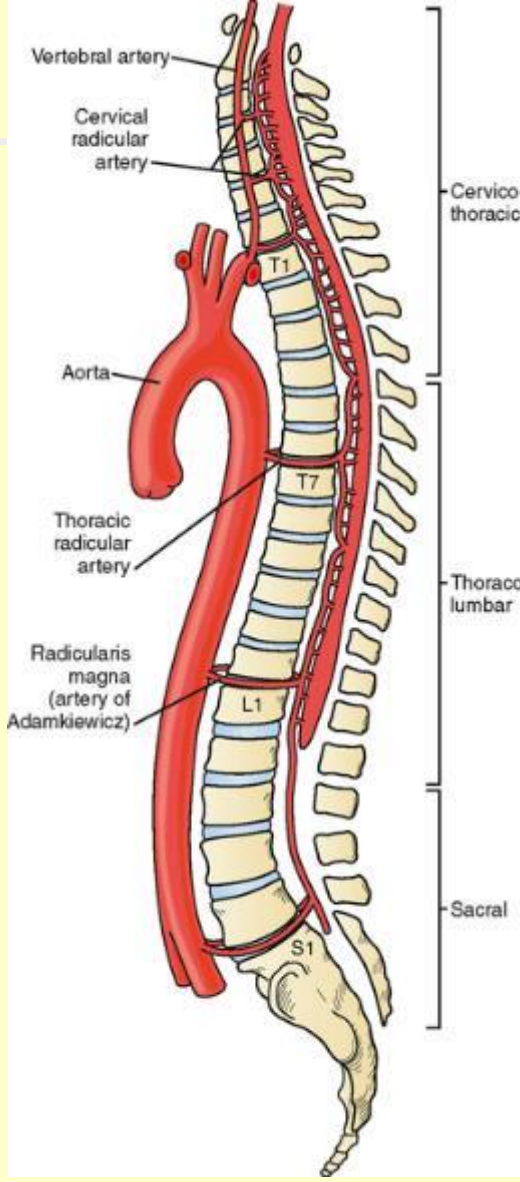
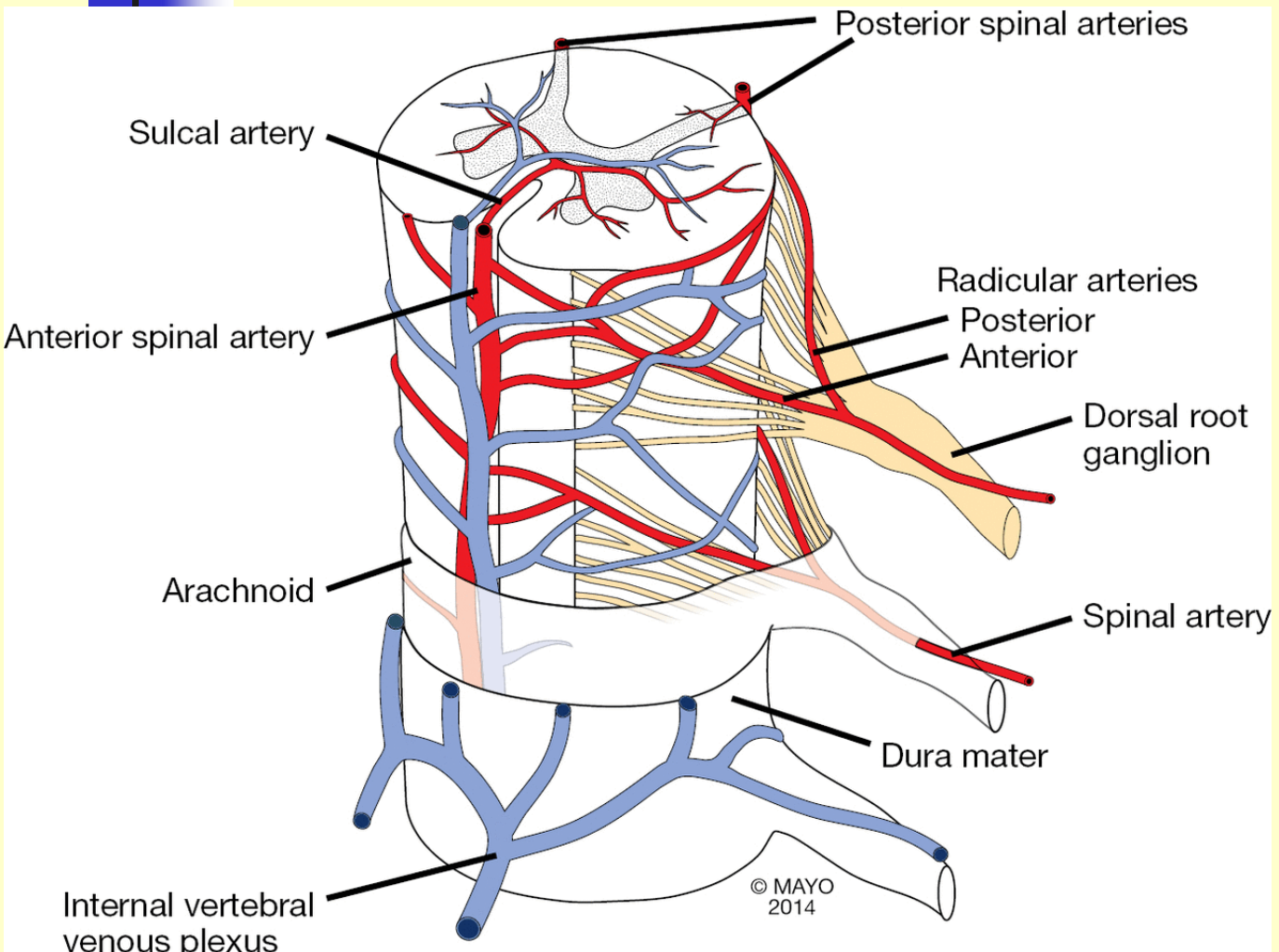


Blood supply of spinal cord



Blood supply of spinal cord





Acute spinal cord ischemia

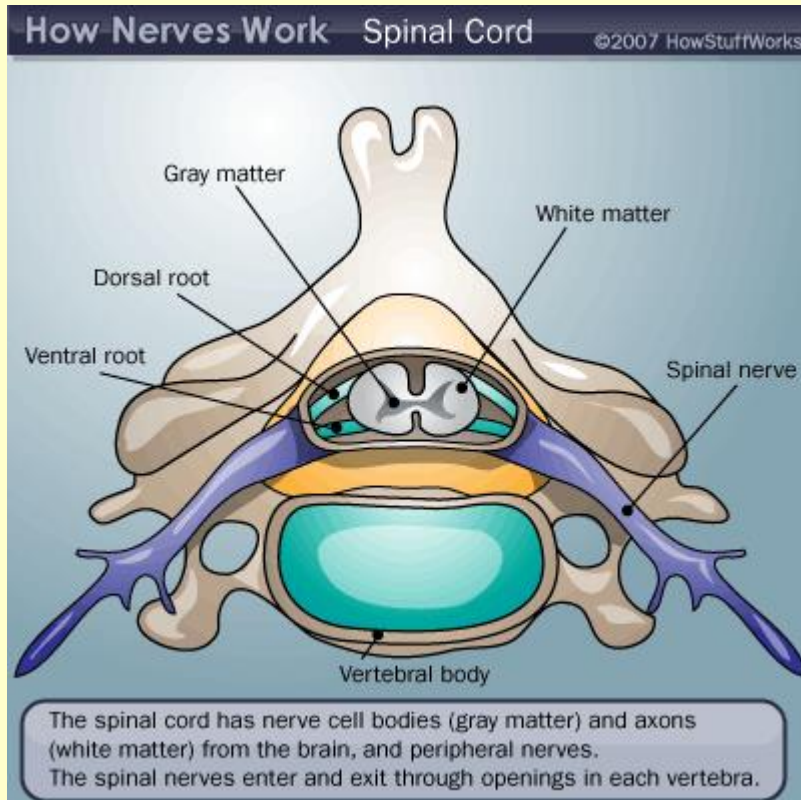
- Represents only 5-8% of acute myelopathies and <1% of all strokes
- The majority of patients developed symptoms quickly, with **maximal symptomatology reached within 12 hours for >50%** of patients and within 72 hours for the vast majority of patients
- Initial symptoms include severe back pain (60-70%), loss of bladder control (60%) and bowel control (40%).



Clinical feature

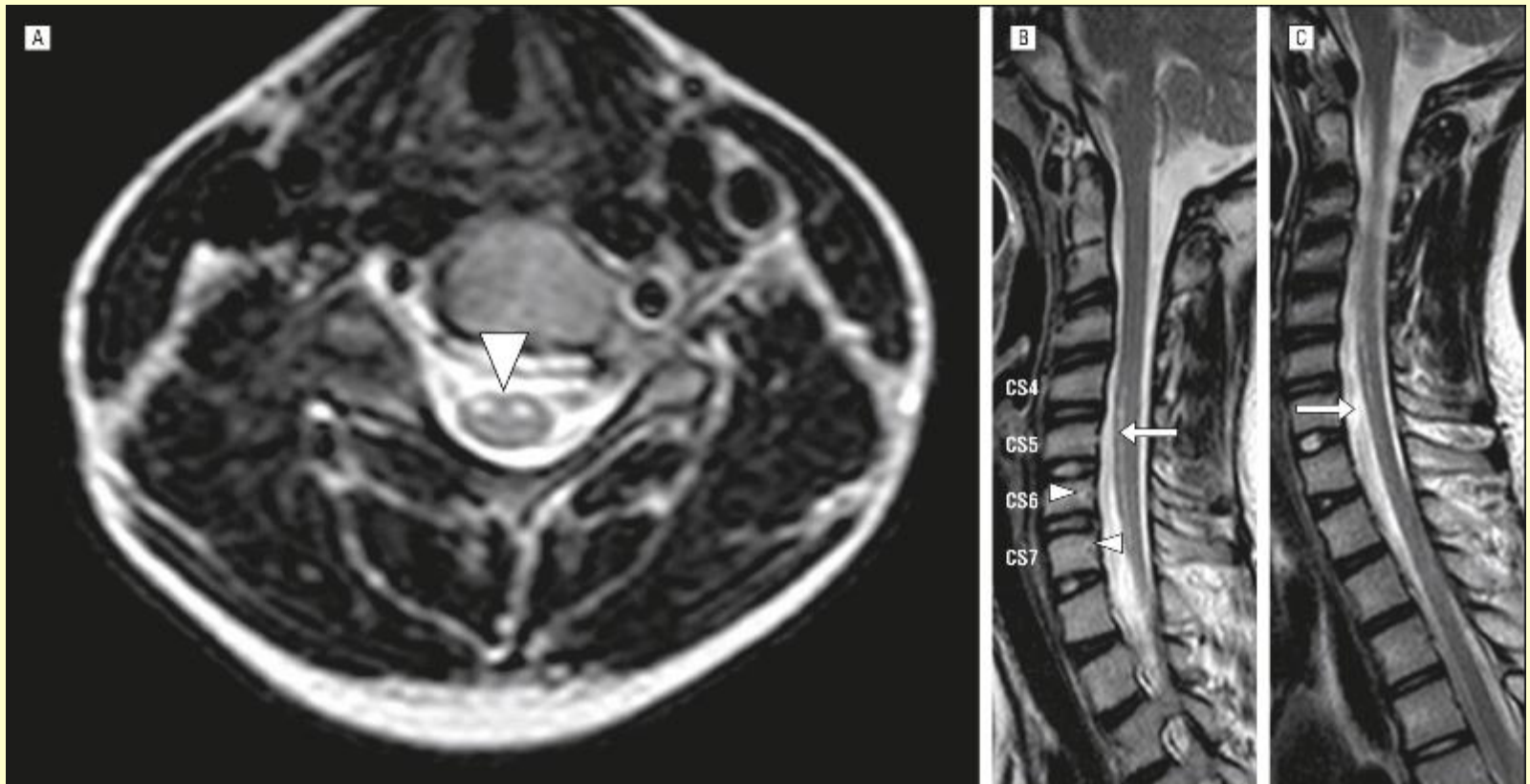
- anterior spinal artery syndrome
- paralysis below affected level (initially flaccid; later spastic)
- pain and temperature sensory loss
- relative sparing of proprioception and vibration (dorsal columns)
- posterior spinal artery syndrome
- complete sensory loss at the level of injury
- proprioception and vibration loss below level
- minimal, typically transient, motor symptoms

MRI



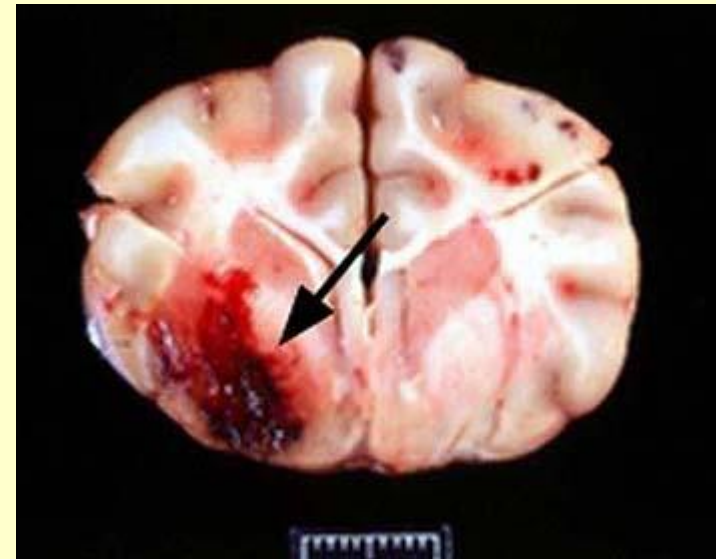
T2-wieghted MRI

Owl's Eye in Spinal Magnetic Resonance Imaging

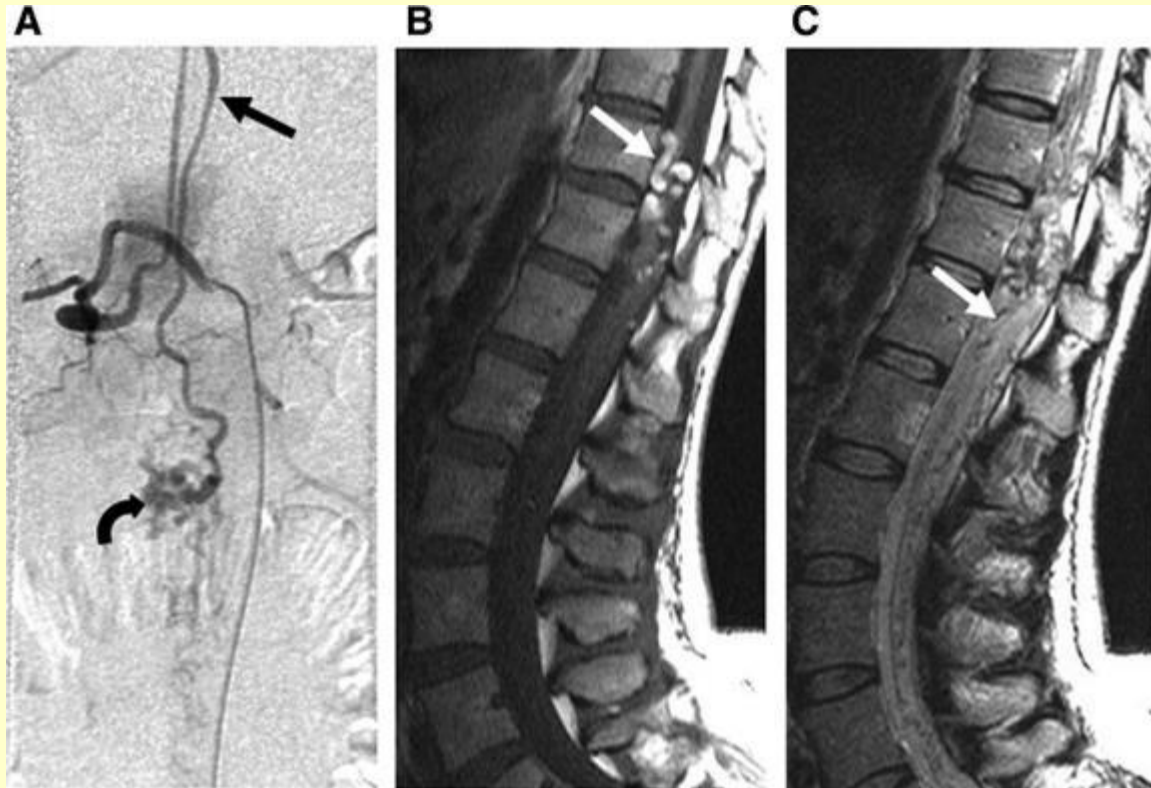


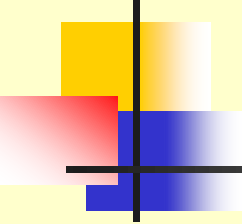
Haematomeylyia

- Bleeding to spinal cord
- Etiology
 - AVM
 - Anti-coagulant therapy
 - Coagulopatias
 - Injury



Haematomeylyia - etiology

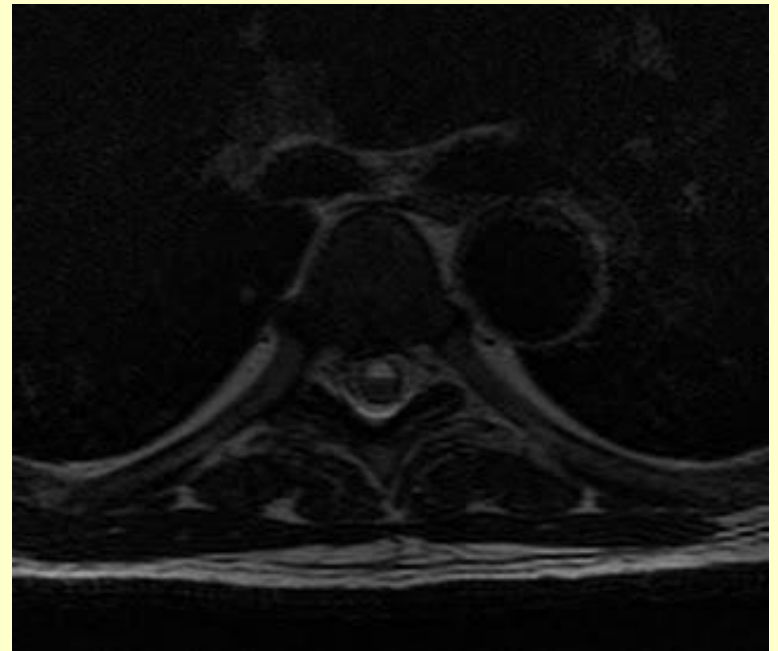


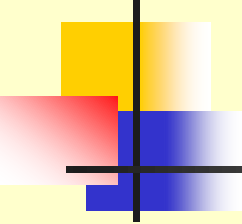


Hematomyelia – clinical feature

- Pain
- Symptoms similar as in ischemia
- Diagnosis – MRI
- Treatment – conservative, surgery

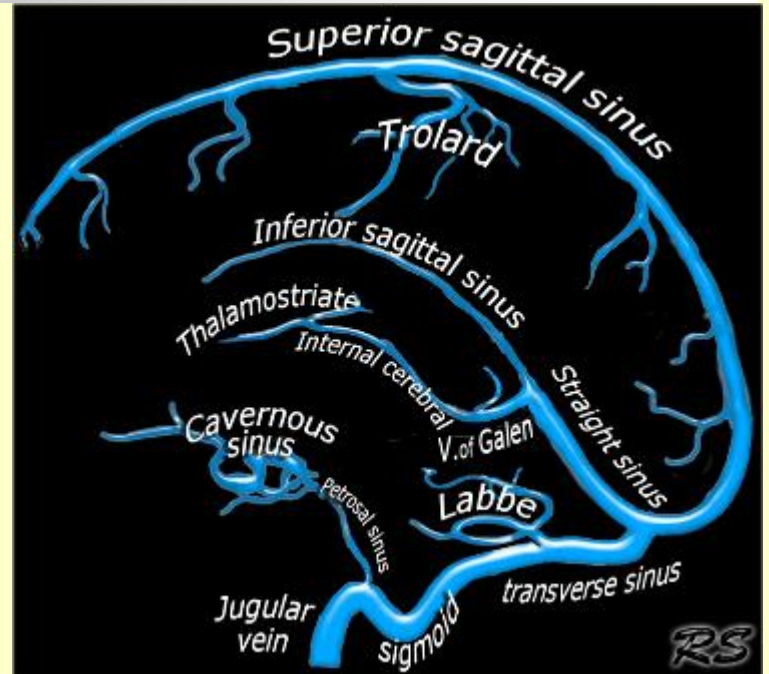
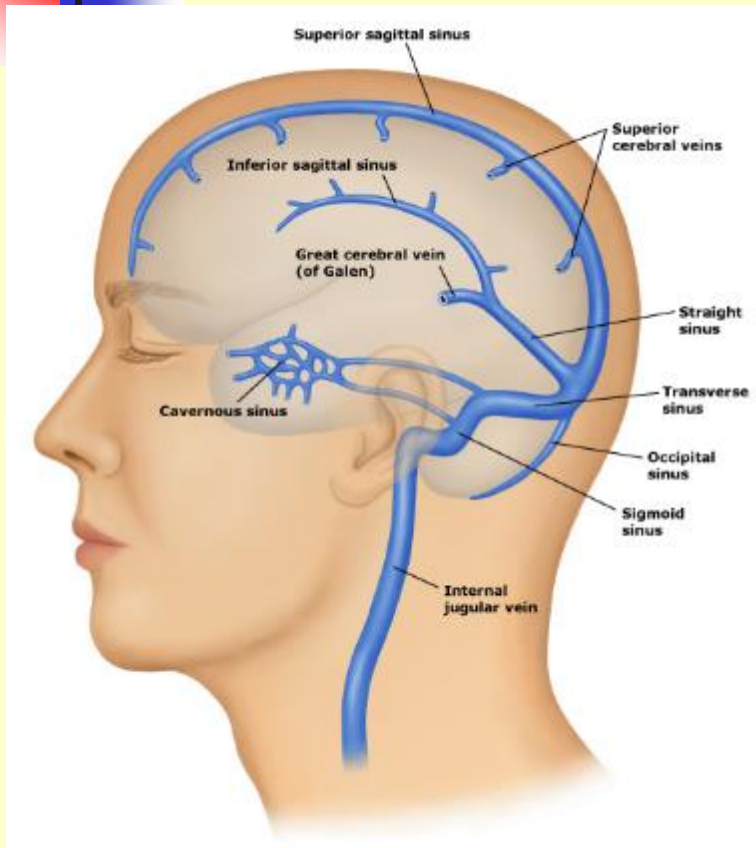
Hematomyelia - MRI

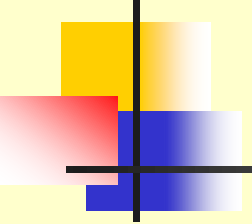




Cerebral venous thrombosis (CVT)

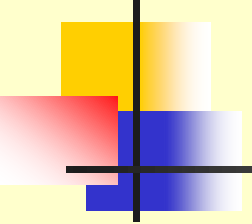
- Rare type of stroke
- Thrombosis occurs in the venous side of the brain circulation
- Occlusion of one or more cerebral veins nad dural venous sinus.
- Incidence – 1/100 000 inhabitants
- The most frequent – children and young adults, more often in women





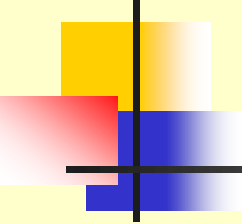
Cerebral venous thrombosis (CVT)

- **Etiology**
- Infections (in 70 % - Staphylococcus aureus, than Streptococcus pneumoniae, gramnegative bacterias, Aspergillus).
 - Focal infections on the head – sinusitis, meningitis, malignancy, otitis, tonsilitis, furunkul, penetrating head injury
 - Generalized infections – endokarditis, tuberkulosis, pneumonia, hepatitis, AIDS.
 - Lumbal puncture



Cerebral venous thrombosis (CVT)

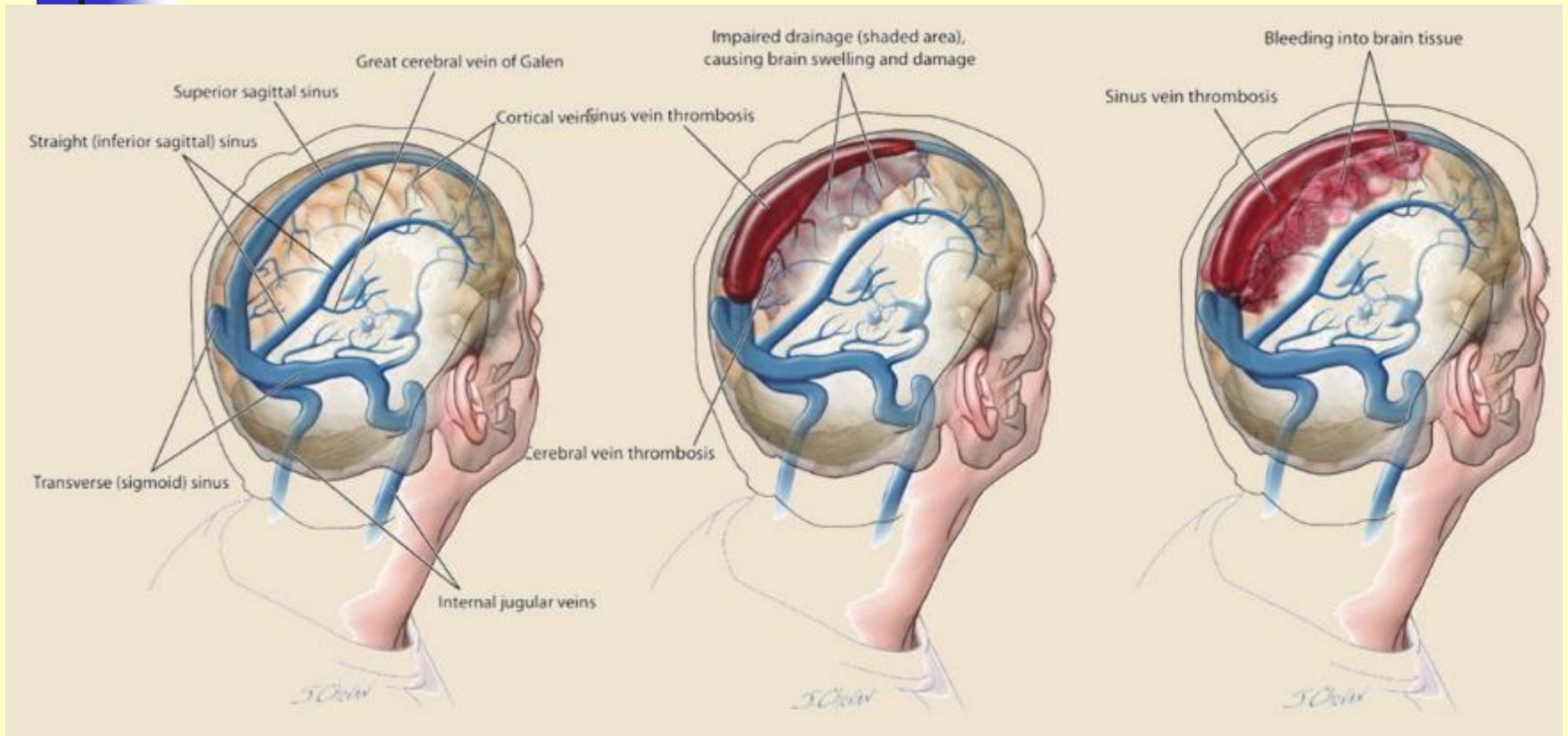
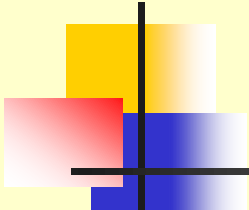
- Non infectious risk factors
 - Oral contraceptives,
 - Drugs with protrombotic effect
 - Pregnancy, pueprerium
 - Thrombophilic disorders,
 - Antiphospholipid syndrome
 - Malignancies

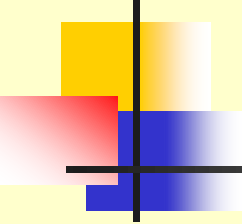


Cerebral venous thrombosis

Clinical feature

- Subacute beginning
- Different neurological symptoms
- Later – hemorrhagic transformation
- Cefalea, nauzea, vomitus
- Hemiparézis, paraparesis (sinus sagitalis superior),
- Aphasia,
- ataxia, chorea, hemianopsia,



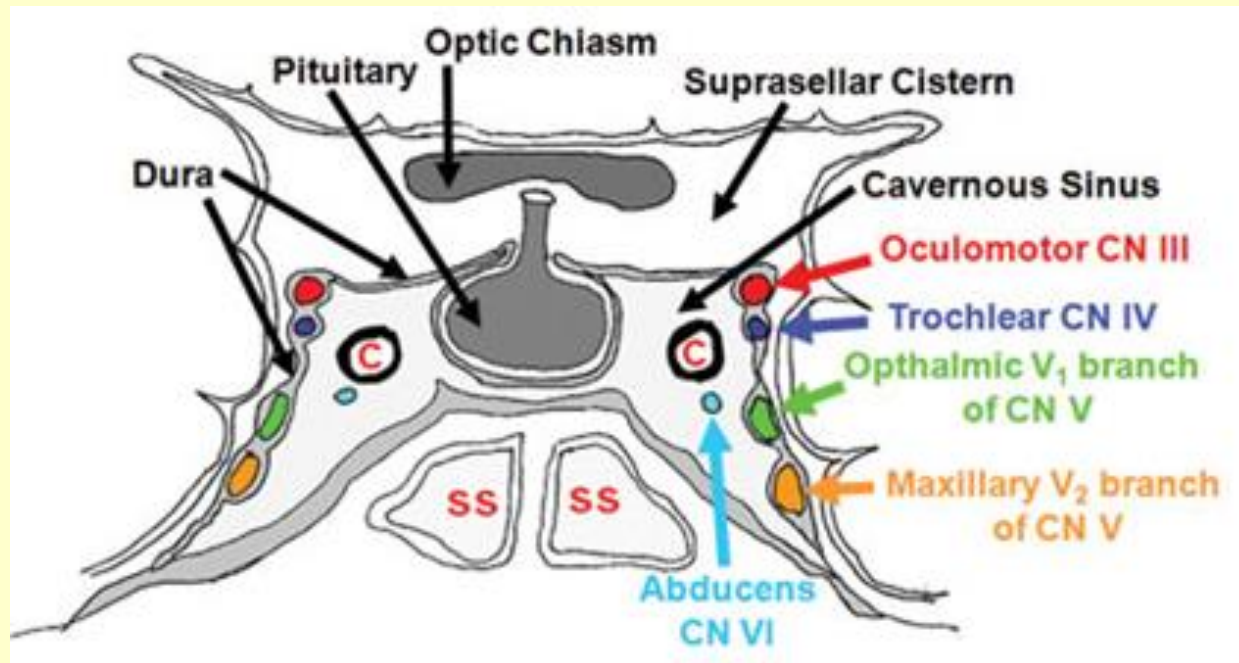


Cerebral venous thrombosis

Clinical feature

- Epileptic seizure
- Papil oedema
- Cranial nerve lesions - (n. VI, n. VII, n. VIII).
- syndrom foramen jugulare (n. IX – XII.)

Sinus cavernosus thrombosis (SC)

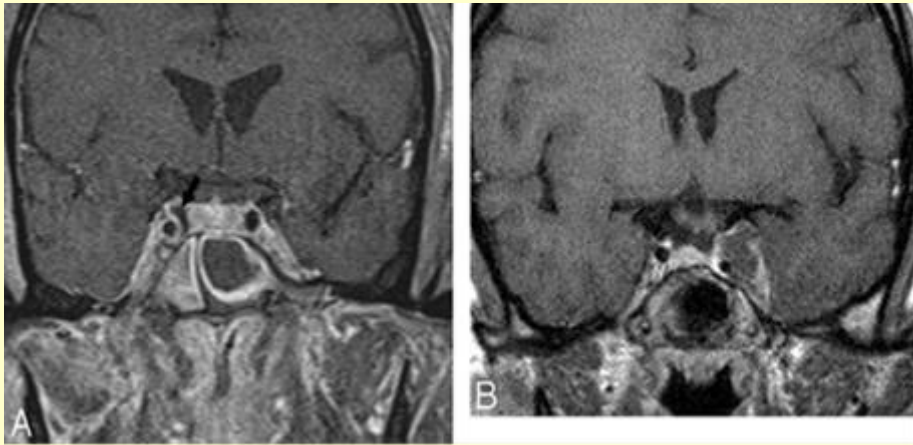


Sinus cavernosus thrombosis (SC)

- very rare, life-threatening condition that can affect adults and children.
- Symptoms
- Severe headache
- Swelling, redness, or irritation around one or both eyes
- Drooping eyelids
- Inability to move the eye
- High fever
- Pain or numbness around the face or eyes
- Fatigue
- Vision loss or double vision
- Seizures

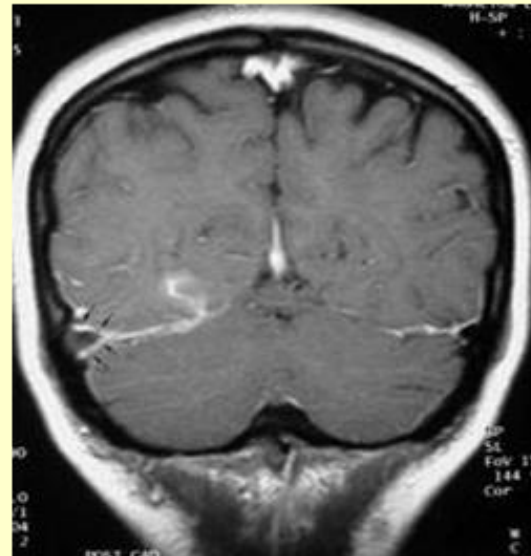


Sinus cavernosus thrombosis - MRI



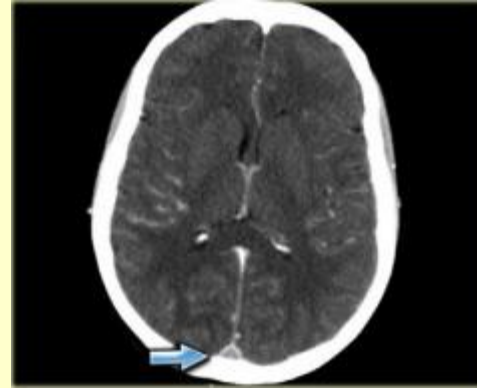
Sinus transversus thrombosis

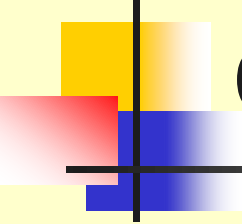
- Sy intracranial hypertension
-
- a temporal symptomatology



Sinus sagittalis superior thrombosis

- Spastic monoparesis of lower extremity
- Or spastic paraparesis of lower extremities
- Or unilateral hemiparesis





Cortical vein thrombosis

- Clinical feature
- Focal deficit – aphasia, hemiparesis, hemianopsy, hemianopsy,



Diagnosis

- Clinical feature – SIH
- Diagnosis – MRI with contrast
- CSF - proteino-cytologic association, in 10 % - CSF negative
- Etiology



Treatment

- Anticoagulants iv, or sc (heparin, alebo LMWH)
- After stabilization – p.o. anticoagulants (Warfarin) INR 2,0 – 2,5 for 6 months, when thrombophilia is present – long lasting
- When there is no effect of heparin – rTPA
- Antibiotics (ceúhalosporins)
- Symptomatic treatment (antiedematous treatment, antiepileptics)