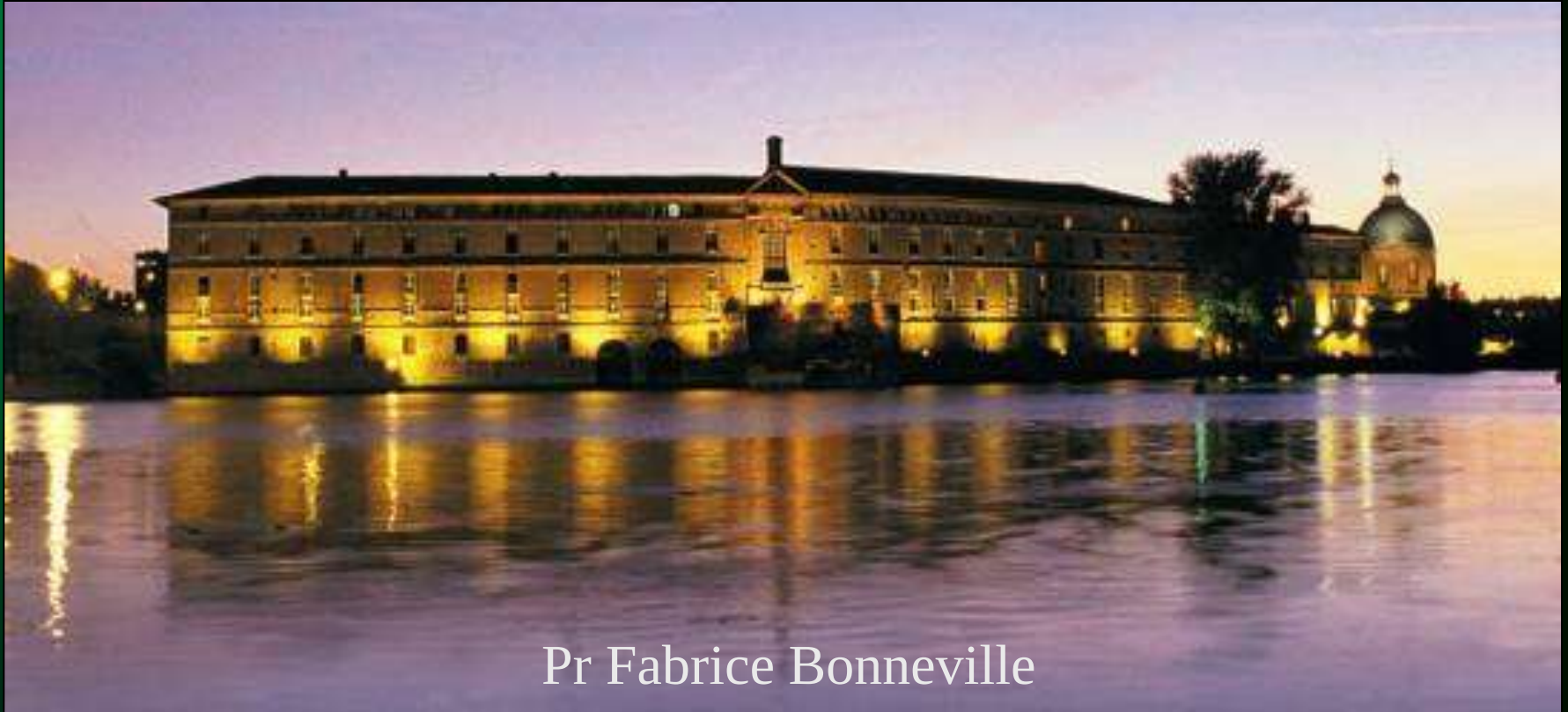


SFNR 2014

Diagnostic des HSA non-anévrysmales



Pr Fabrice Bonneville

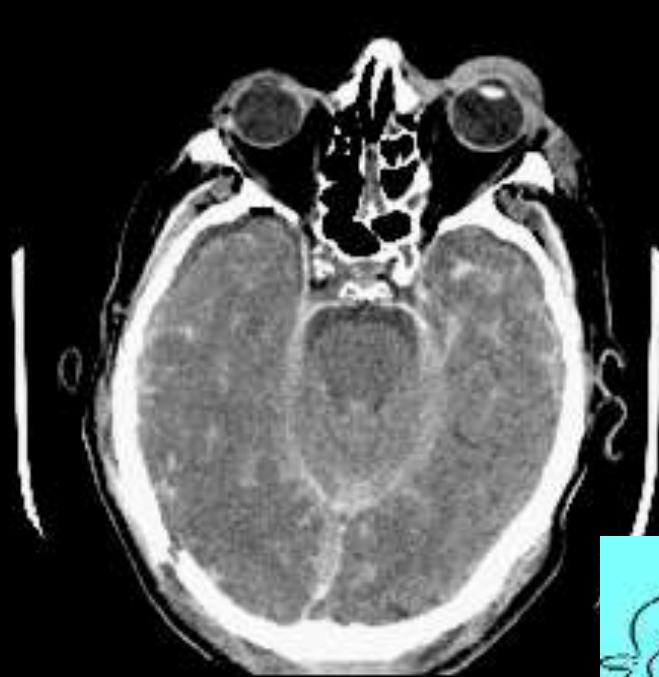
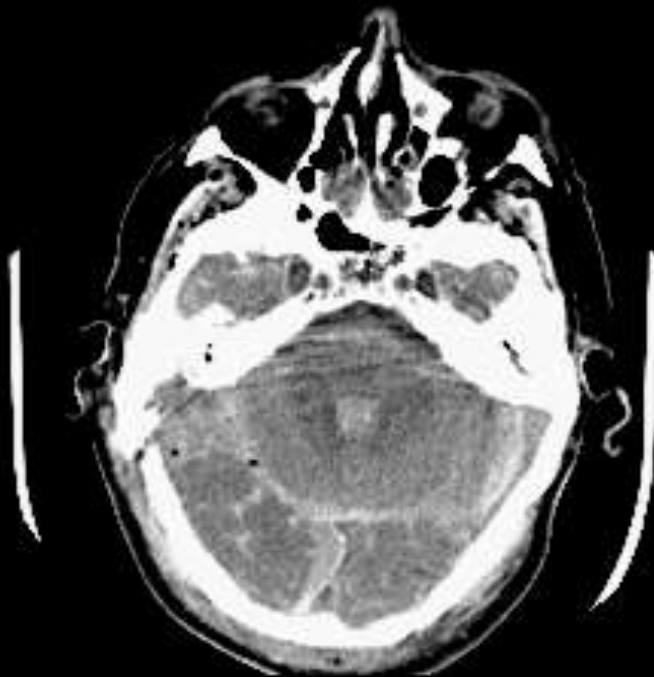
Service de Neuroradiologie
CHU Toulouse

Objectifs

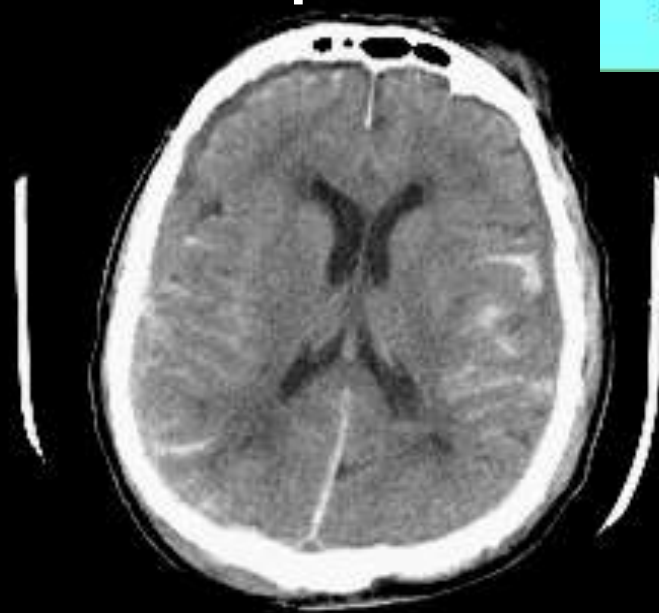
- ◆ Reconnaître une HSA (isodense,...)
- ◆ Proposer une méthode d'exploration d'une HSA
- ◆ Montrer la place du scanner et de l'IRM (artériographie)
- ◆ Découvrir les causes d'HSA non-anévrysmale

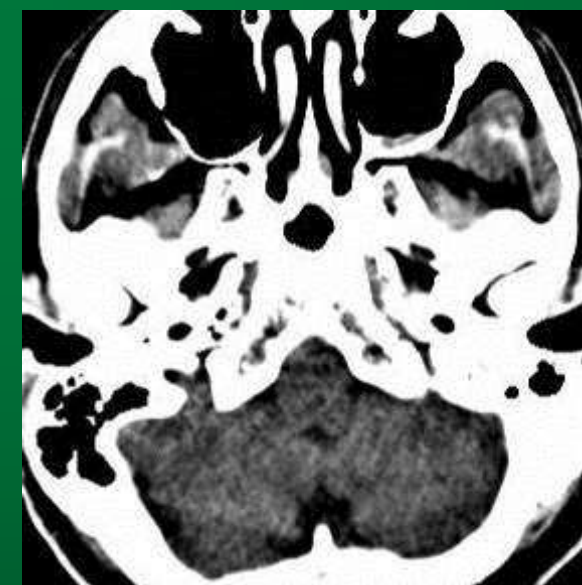






HSA post traumatique

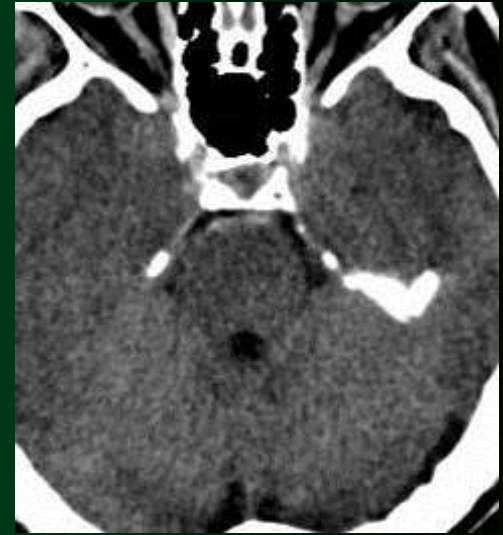




Hémorragie périmésencéphalique

HSA « péri-mésencéphalique »

- ◆ Hémorragie, en générale:
 - Peu abondante
 - Prédomine en fosse postérieure
 - Peut remonter dans vallées sylviennes /asymétrique/ intraventriculaire
 - Moins grave (mortalité:0, spasme rare)
 - D'origine veineuse
 - Ne récidive pas
 - **Diagnostic d'élimination :**
 - Anévrysme fosse postérieure
 - Dissection intracrânienne
 - « 2^e look »



HSA Périmesencéphalique « atypique »

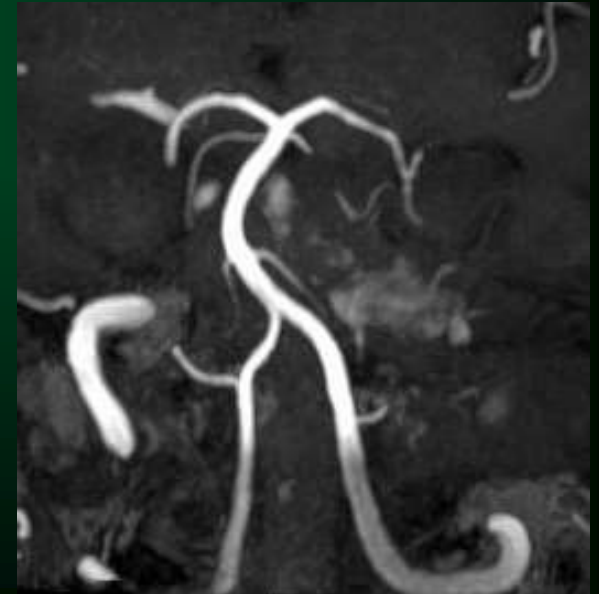
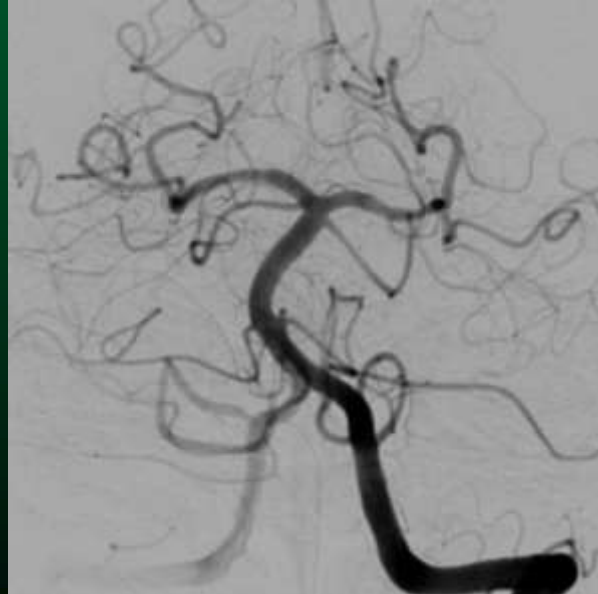
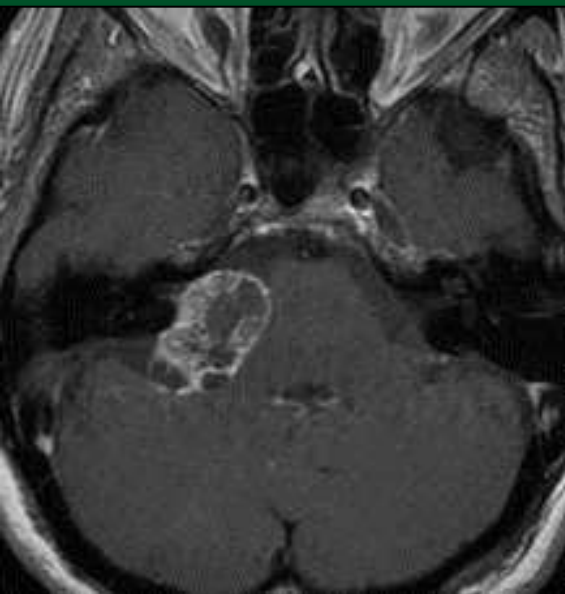
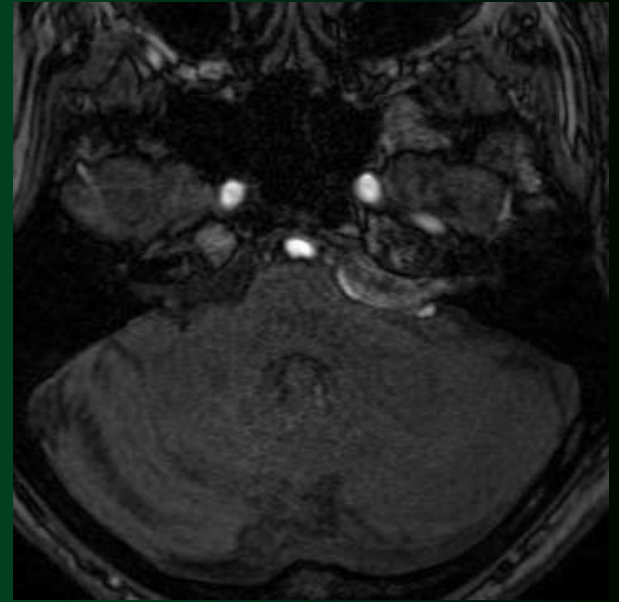
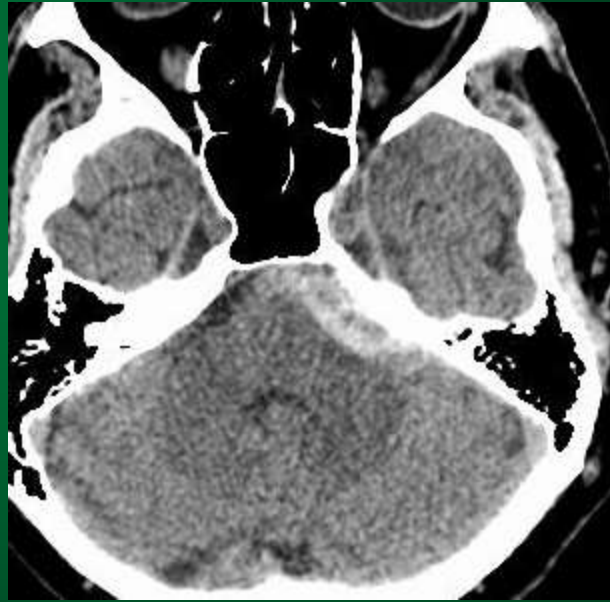


asymétrique, intraventriculaire, ...

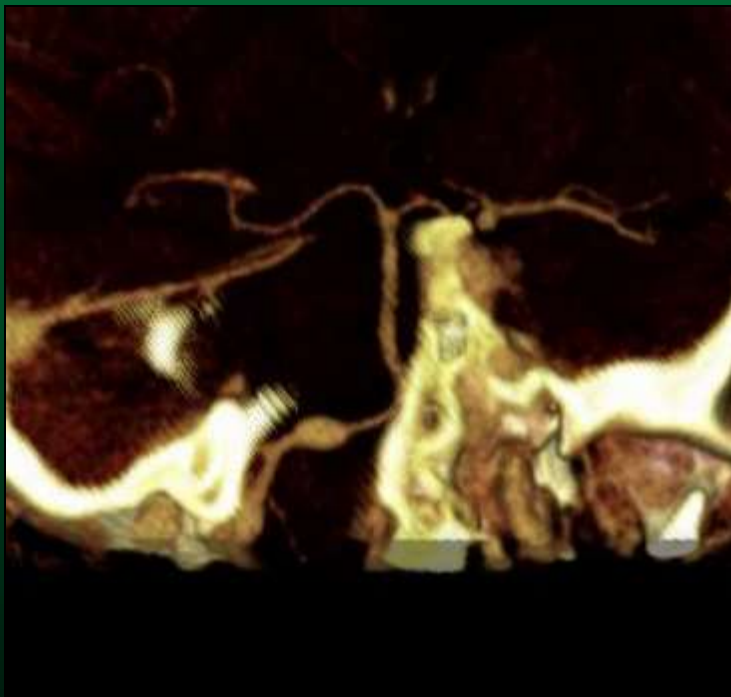


2ème look

2^e look rapproché: pas irm



2^e look: angioscan dissection



J4





■ BRIEF COMMUNICATION

Korean J Parasitol Vol. 51, No. 6: 755-757, December 2013

<http://dx.doi.org/10.3347/kjp.2013.51.6.755>

Detection of *Gnathostoma spinigerum* Antibodies in Sera of Non-Traumatic Subarachnoid Hemorrhage Patients in Thailand

HSA non-traumatiques

- ◆ 85% rupture d'anévrysme
- ◆ 10% périmésencéphalique
- ◆ MAV, Fistule, dissection
- ◆ HSA corticale...

Etiology

Pial arteriovenous malformations

Dural arteriovenous fistulas

Arterial dissection

Dural/cortical venous thrombosis

Vasculitides

RCVS

PRES

High-grade stenosis

Endocarditis

CAA

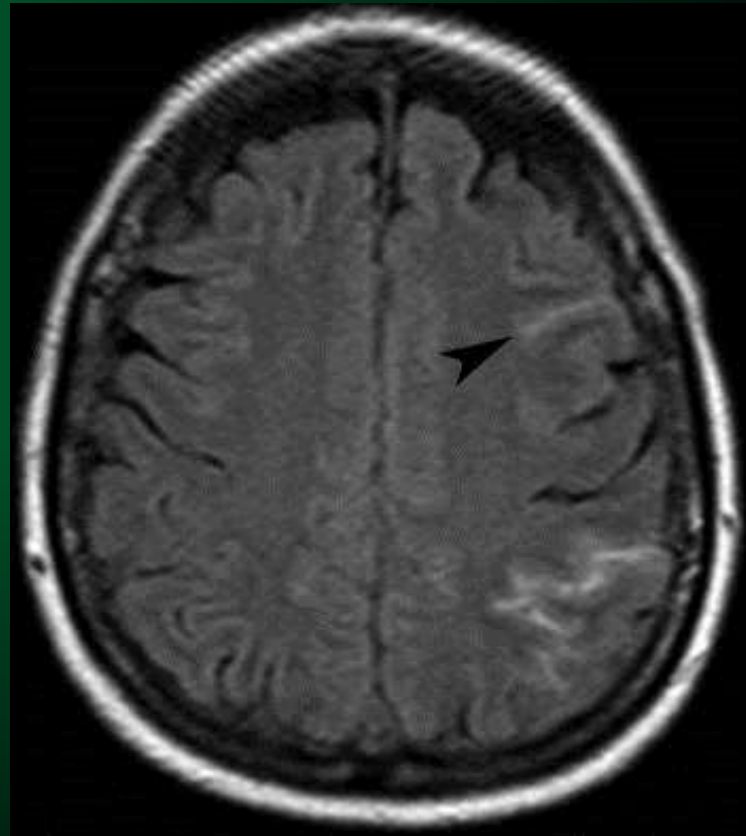
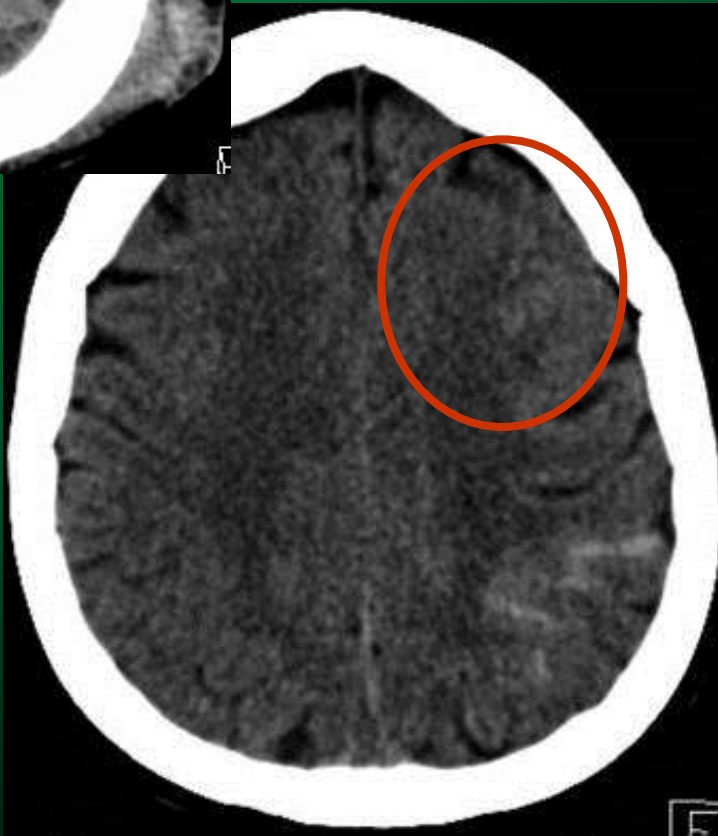
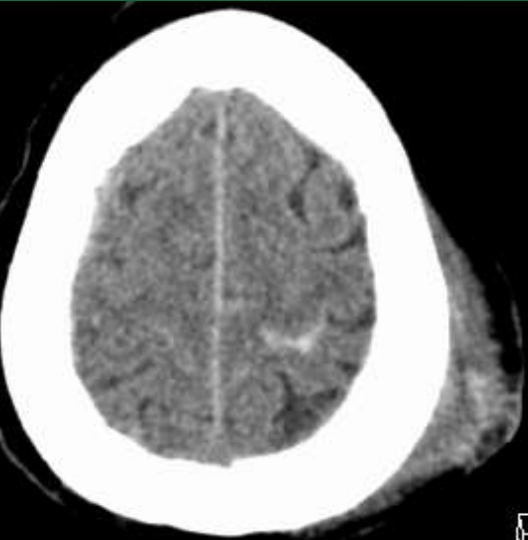
Coagulation disorders

Abscess

Cavernoma

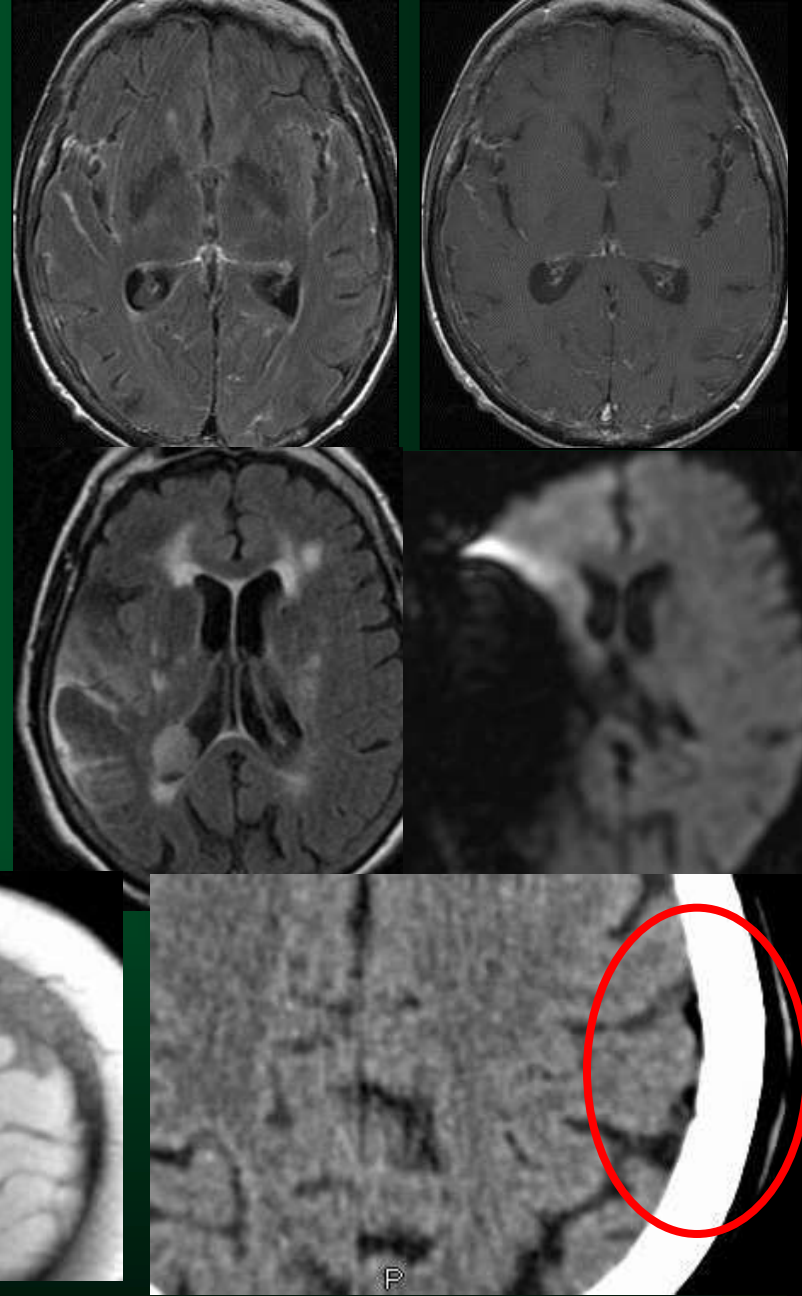
Primary and secondary brain tumors

HSA corticale

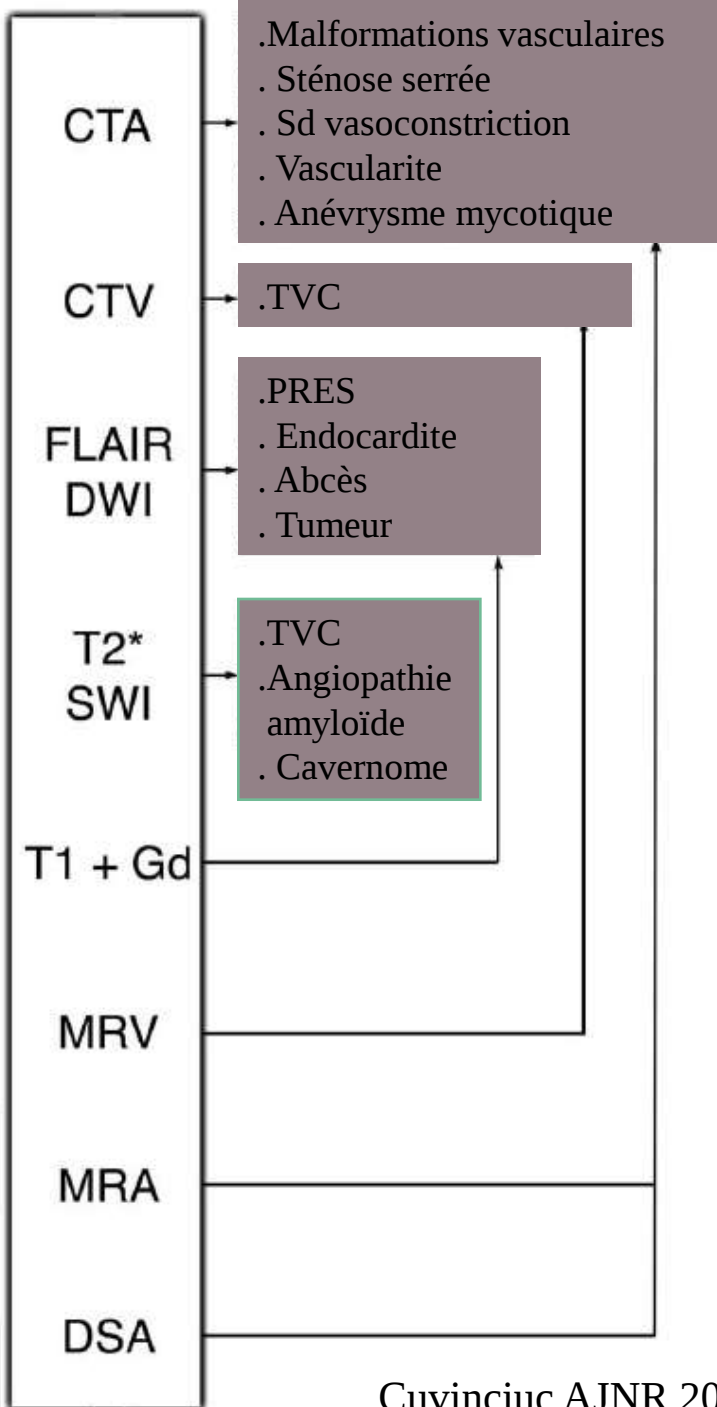


Hypersignaux FLAIR

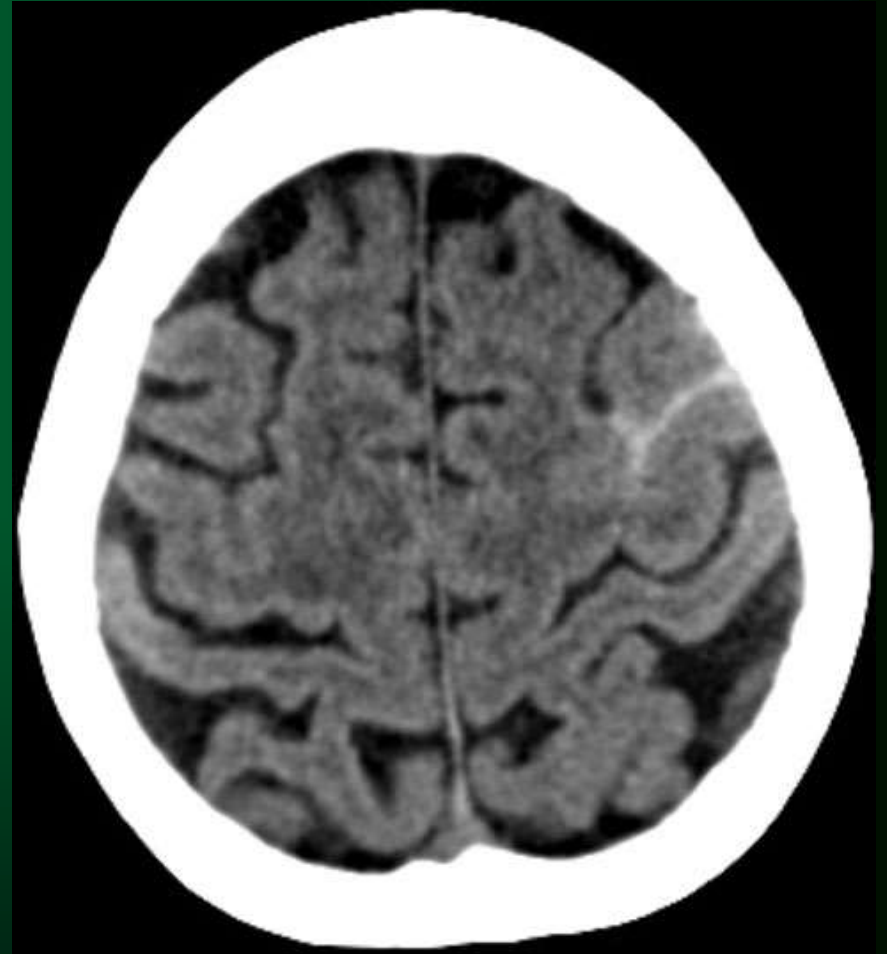
- ◆ Méningite
- ◆ Artefact
- ◆ Oxygène
- ◆ Injection de gado
- ◆ ...



Protocole

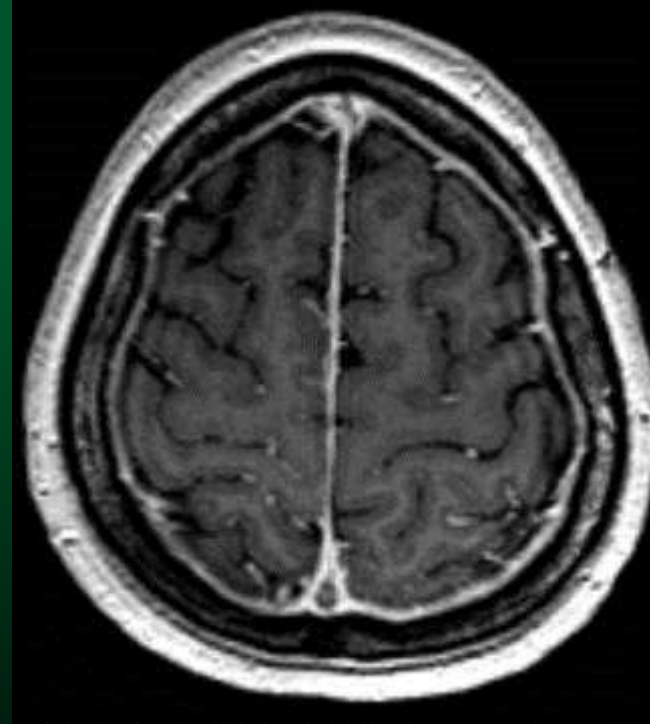
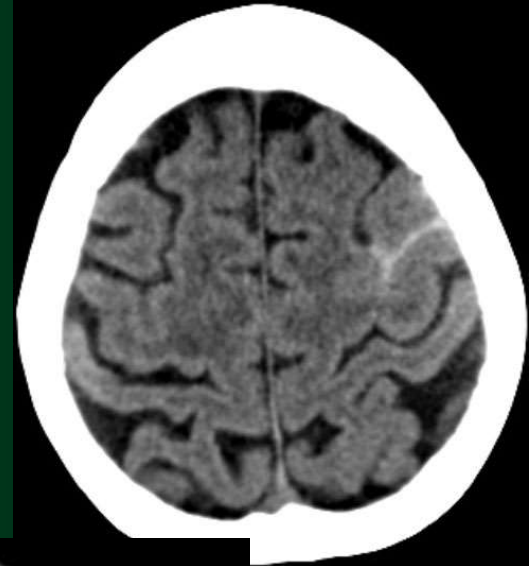


Femme 37 ans. Céphalée aigüe

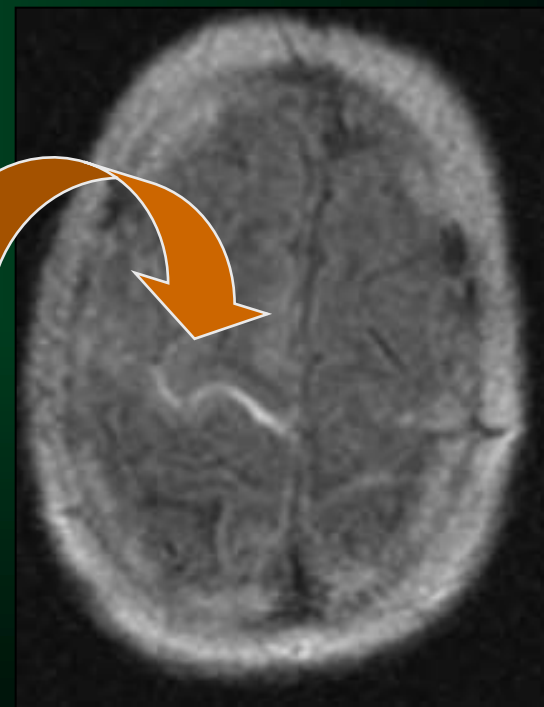
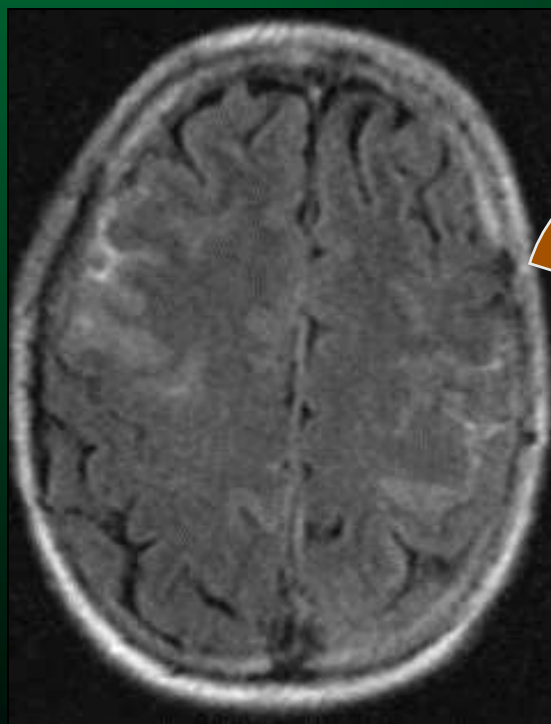
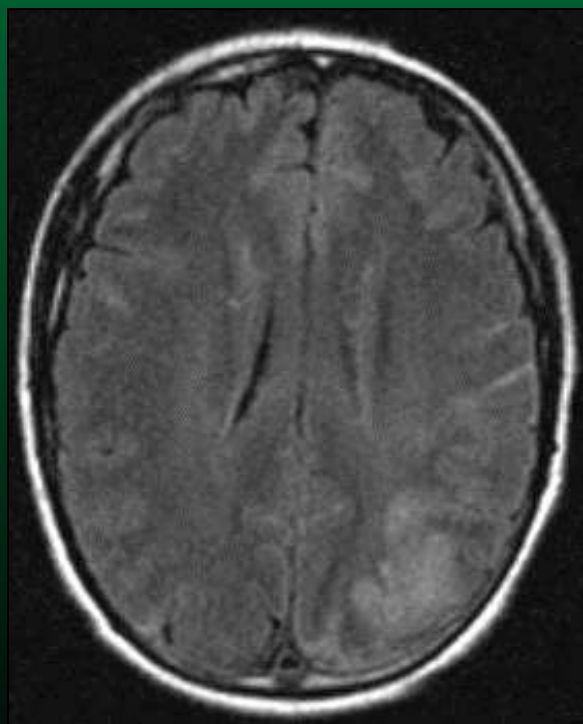
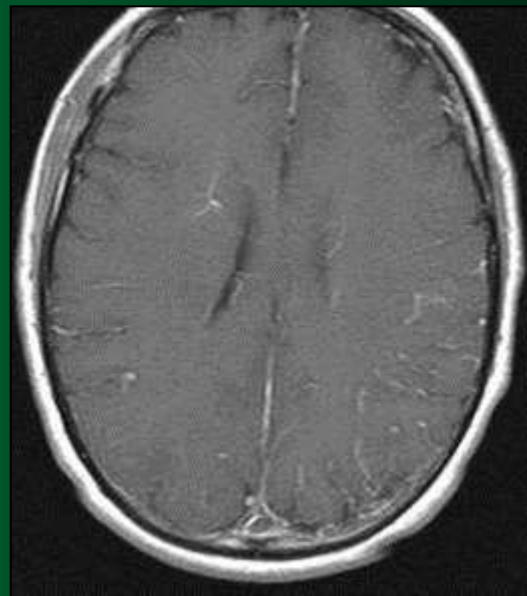
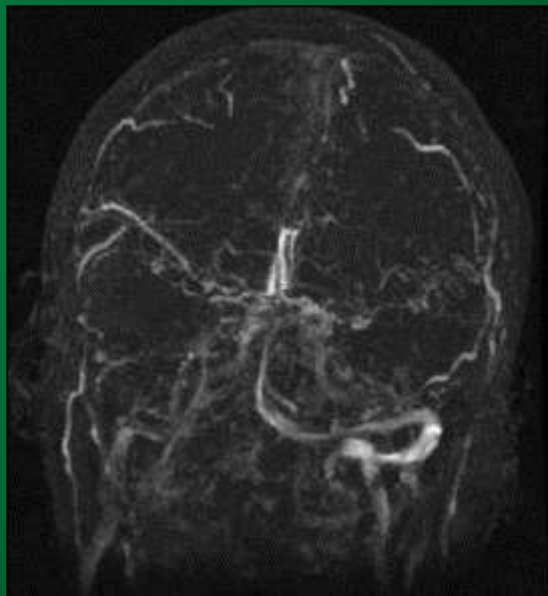




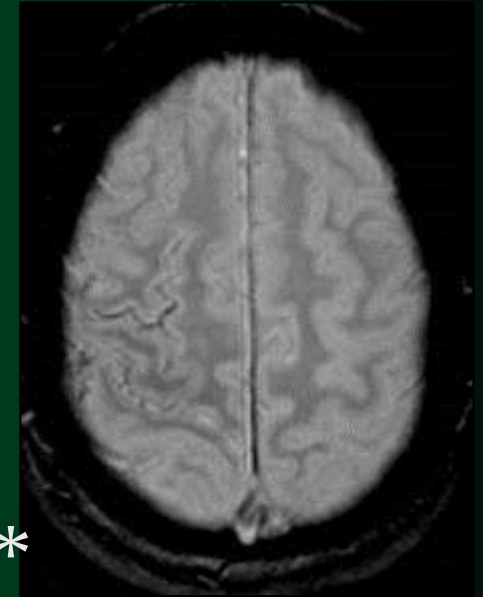
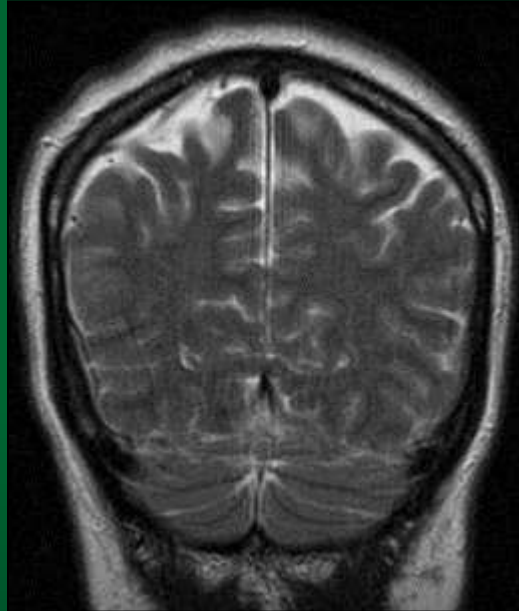
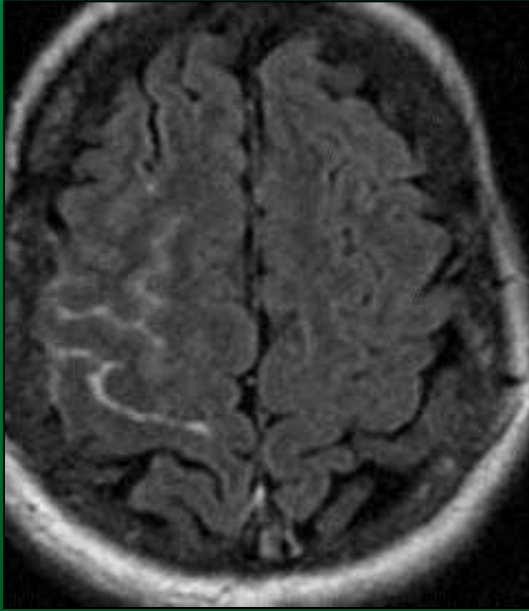
Femme 37 ans.
Céphalée aigüe



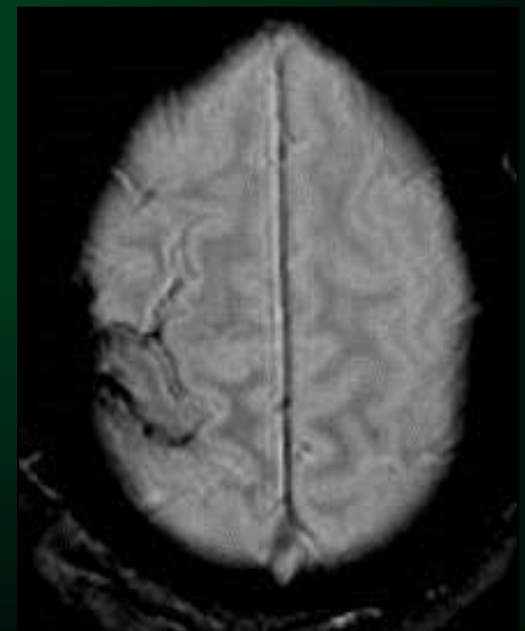
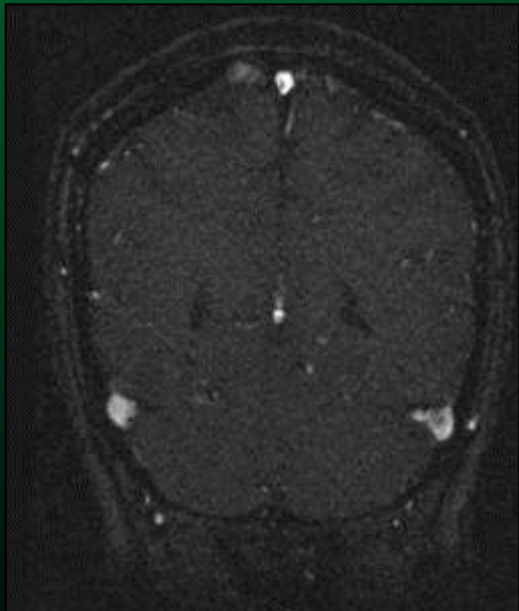
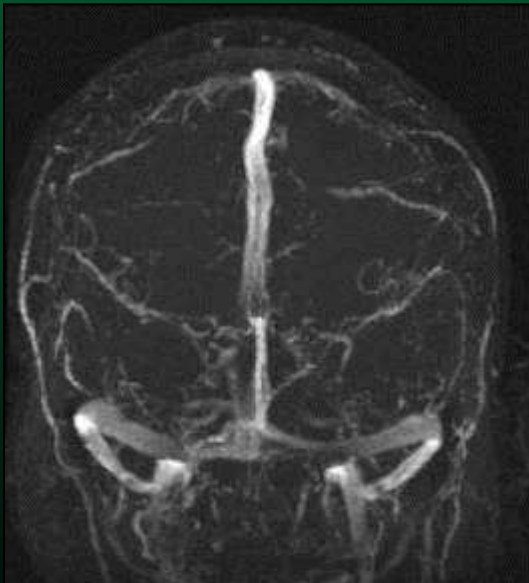
Thrombose veineuse cérébrale



Thrombose veine corticale

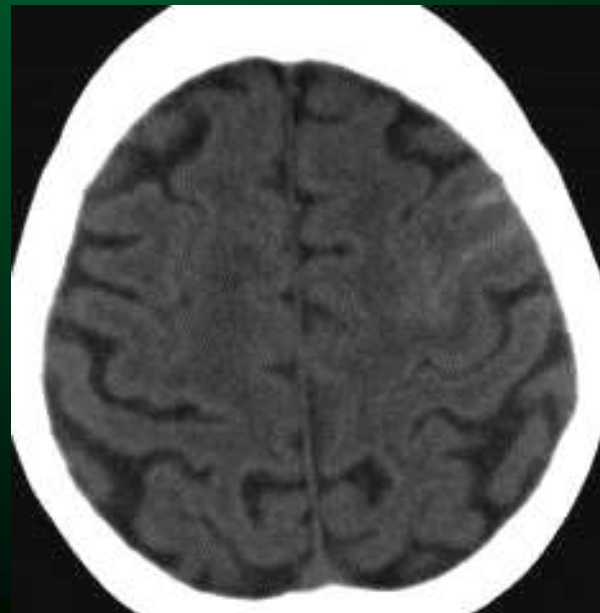
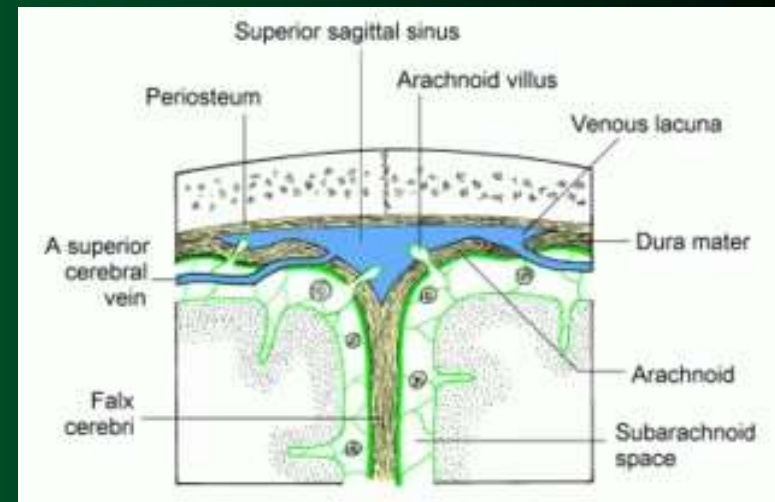


T2*



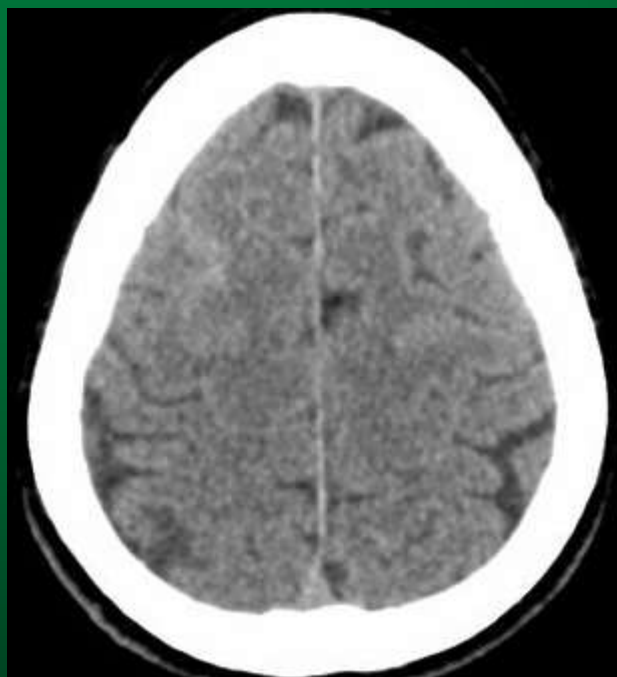
HSA et TVC

- ◆ Présence de sang à la PL (50%) *
- ◆ Cause incertaine :
 - Infarctus veineux hémorragique avec rupture secondaire dans ESA
 - Hyperpression veineuse: rupture de paroi de la veine dans ESA
- ◆ Pendaïson, strangulation



*Boussier MG. *Stroke* 1985

Femme 68 ans gastro, vomissements, puis céphalées J3

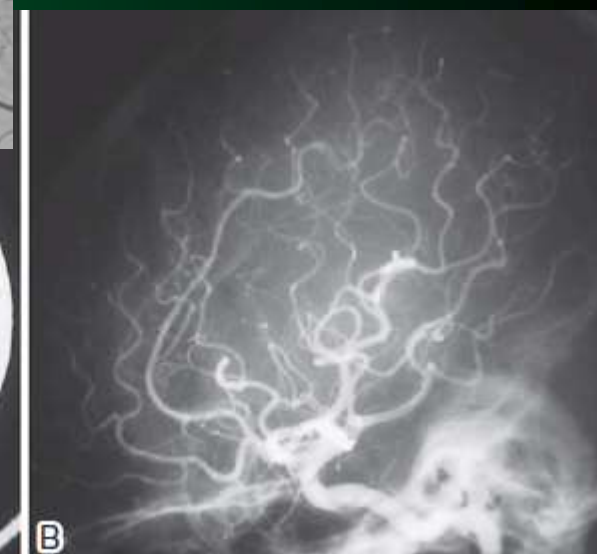
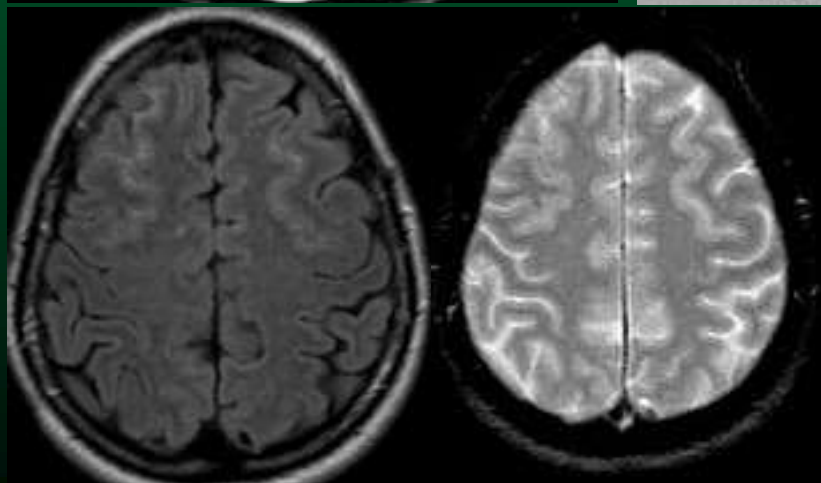


of Unknown Etiology

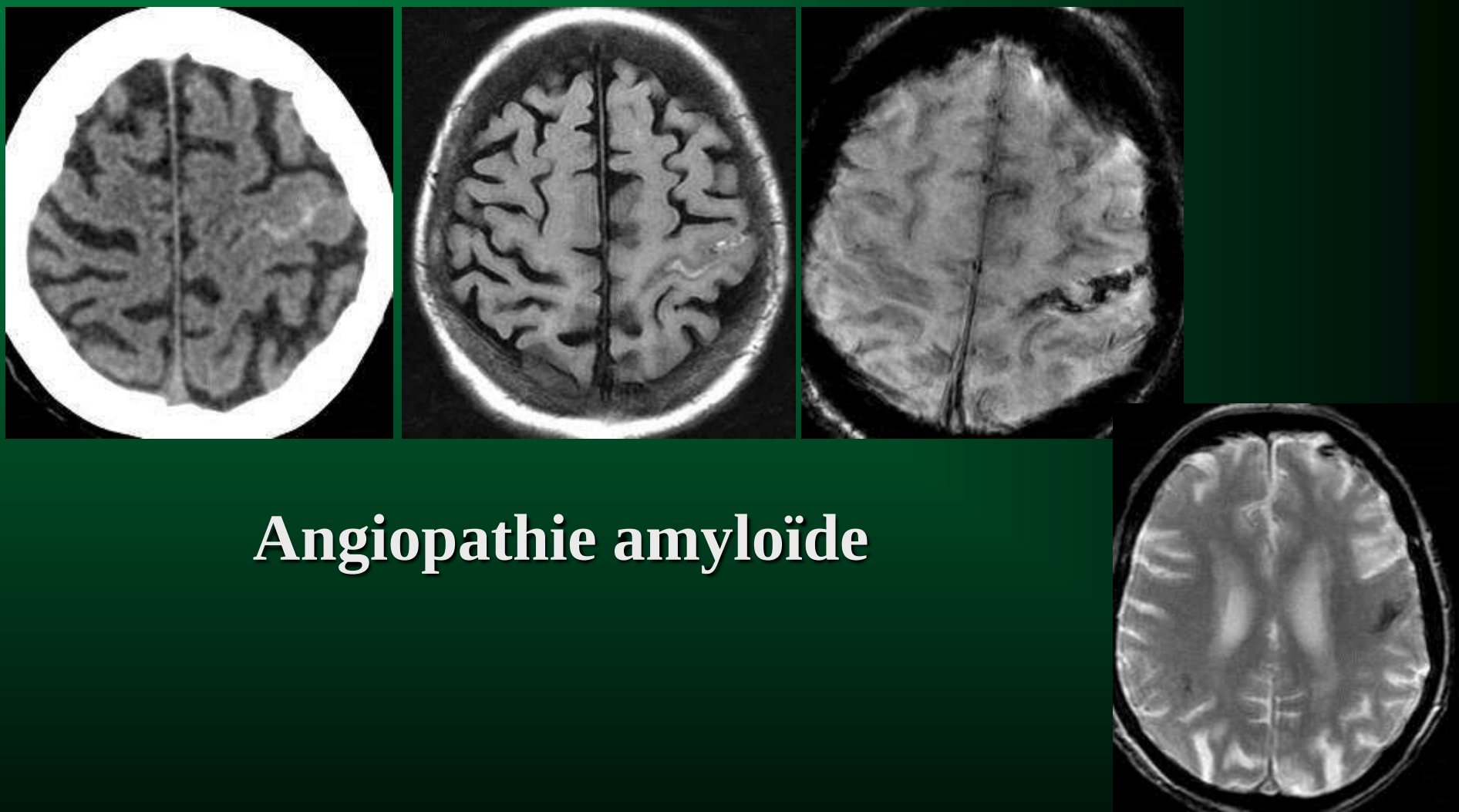
Convexity

and Akira Teramoto¹

ement of a brief increase in intracranial
xertion, in the occurrence of SAH along the

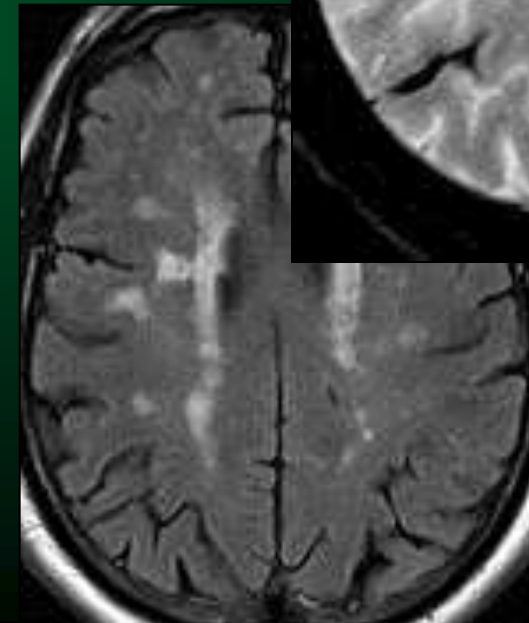
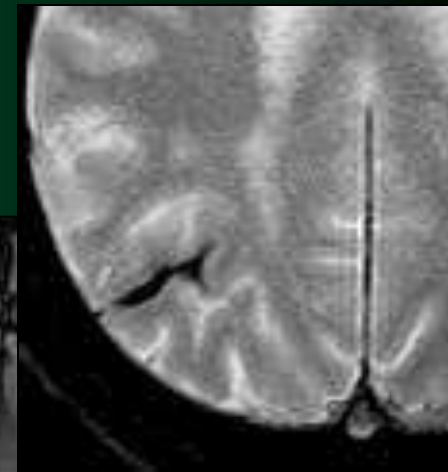
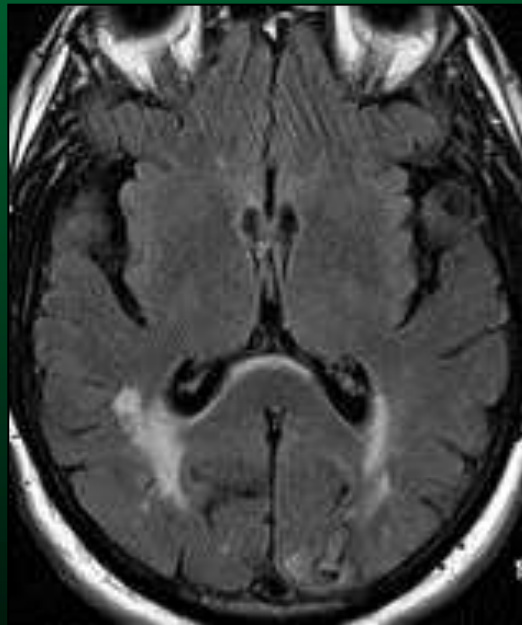
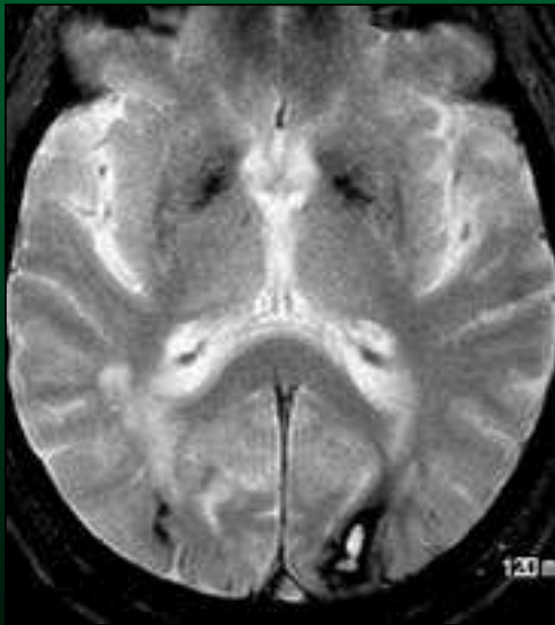


70 ans – déficit transitoire Mb Sup gauche

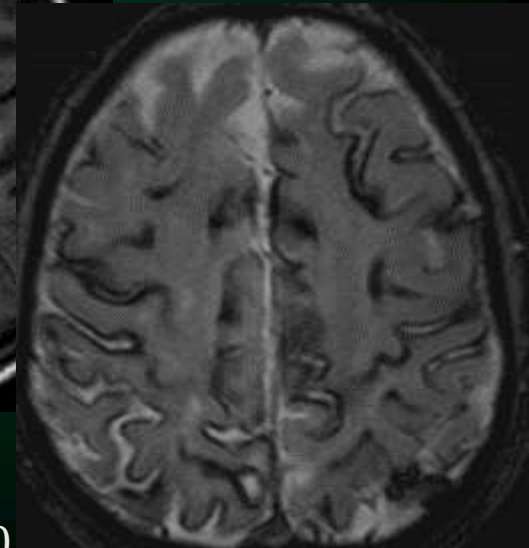
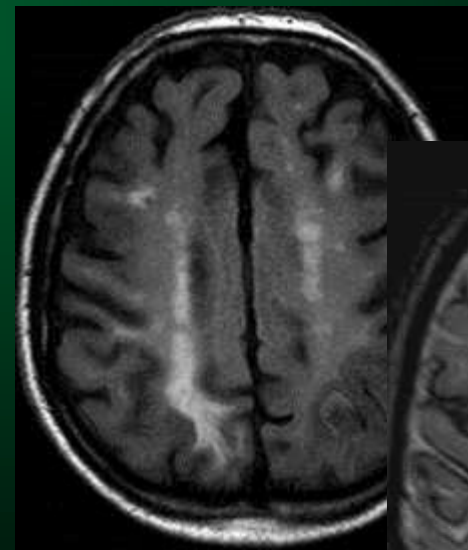
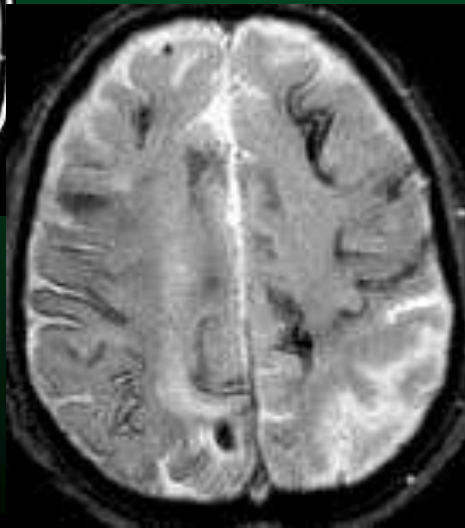
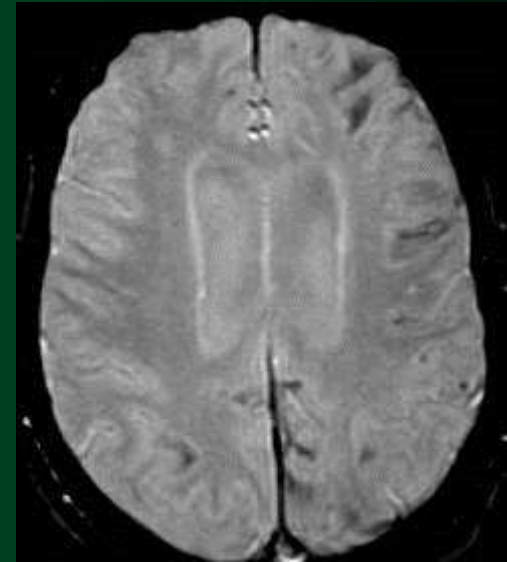
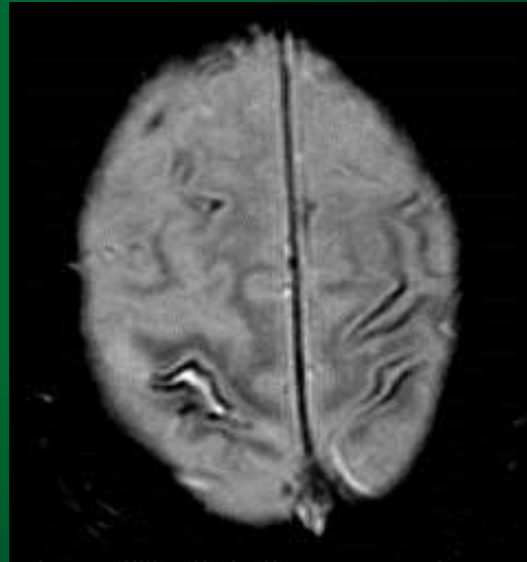
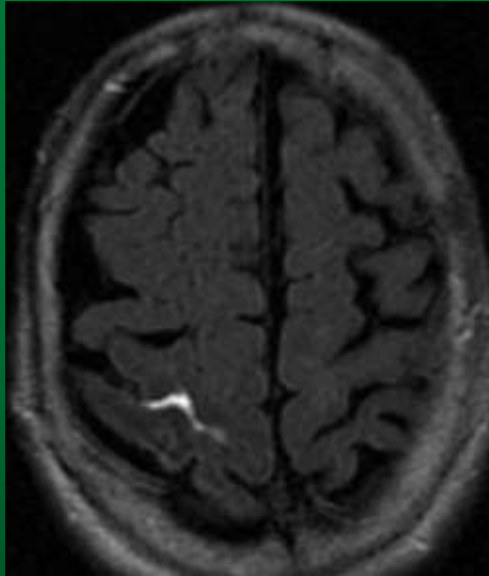


Critères diagnostiques *

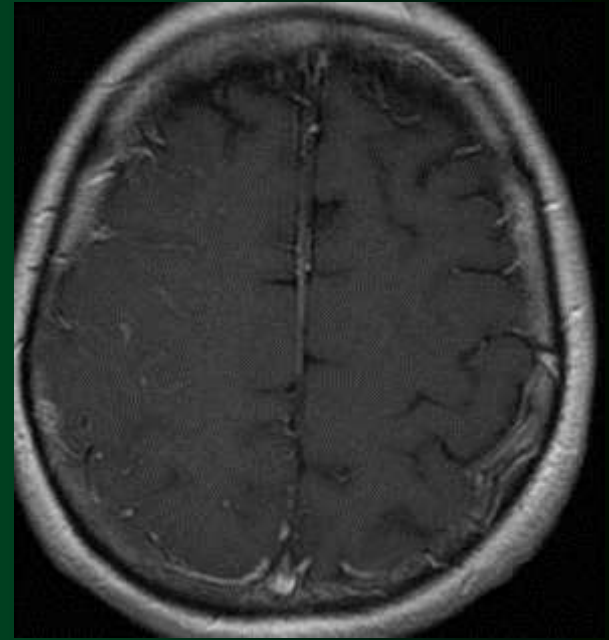
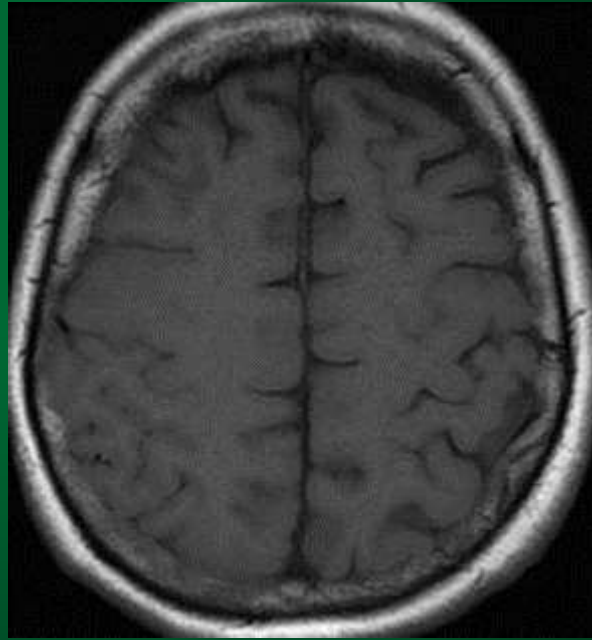
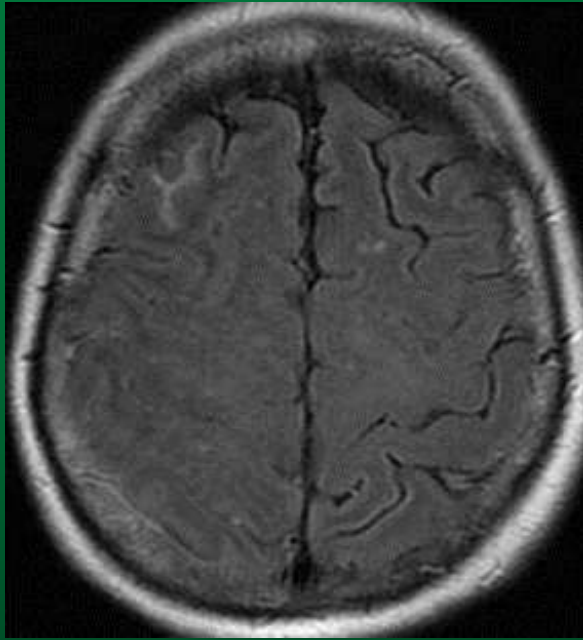
- ◆ Âge > 55 ans
- ◆ Hématome lobaire (épargne NGC)
- ◆ Absence d'autre cause de saignement
- ◆ Présence de microsaignement en T2*



74 ans. Crise bravais-jacksonienne gauche



Chronologie IRM

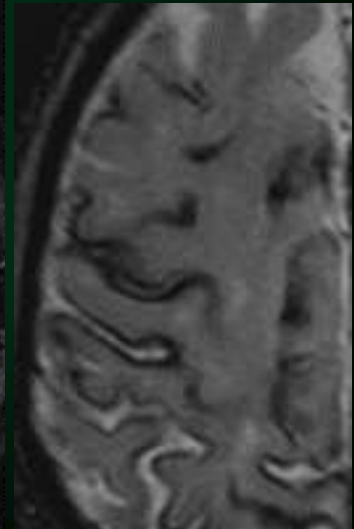
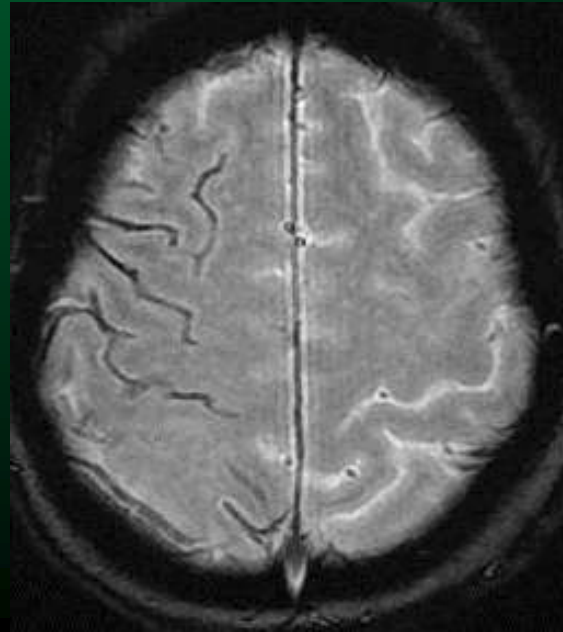


Hypersignal Flair: 1 mois

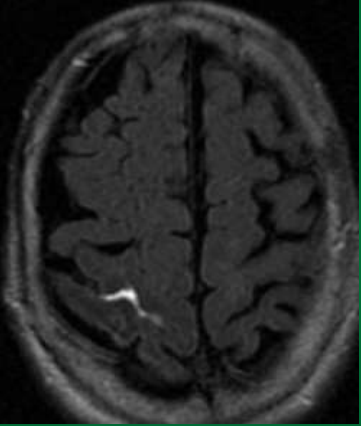
Prise contraste: 1 à 2 mois

Hyposignal T2 *:

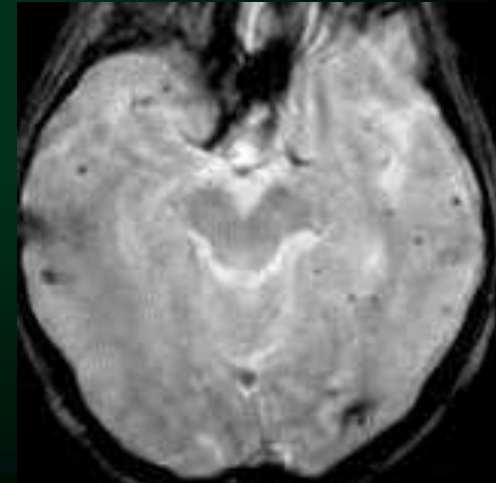
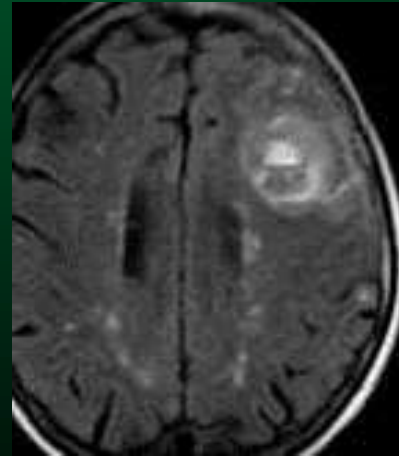
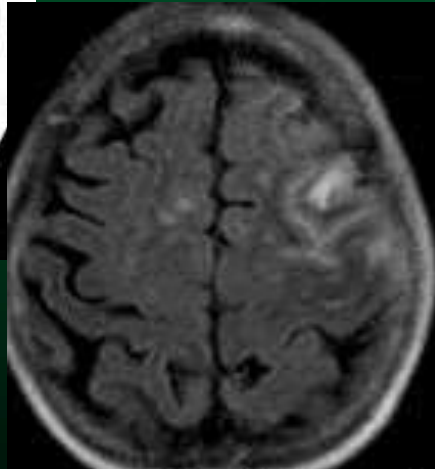
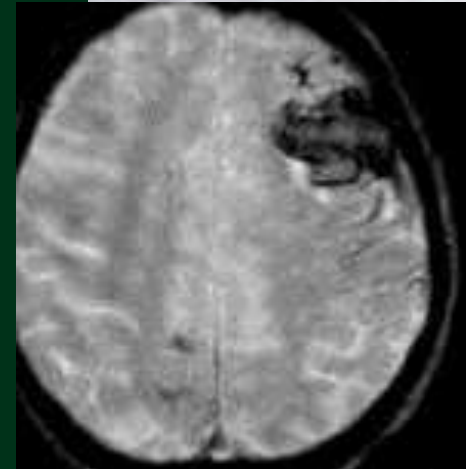
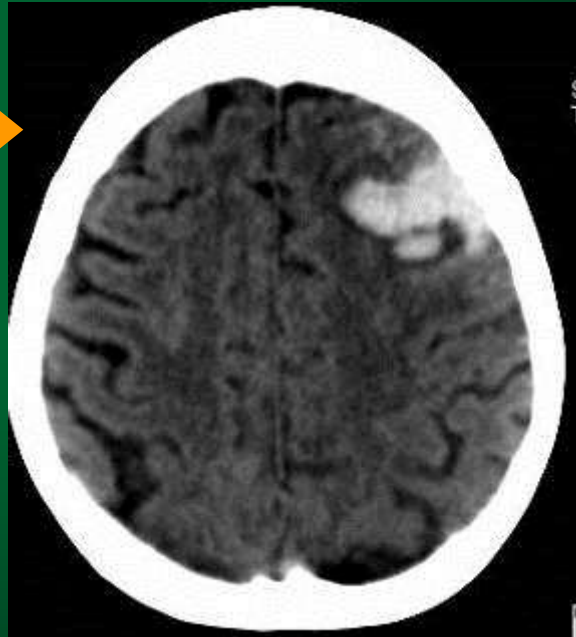
- plein : 2-3 mois
- en rail : au delà



Hématome secondaire*



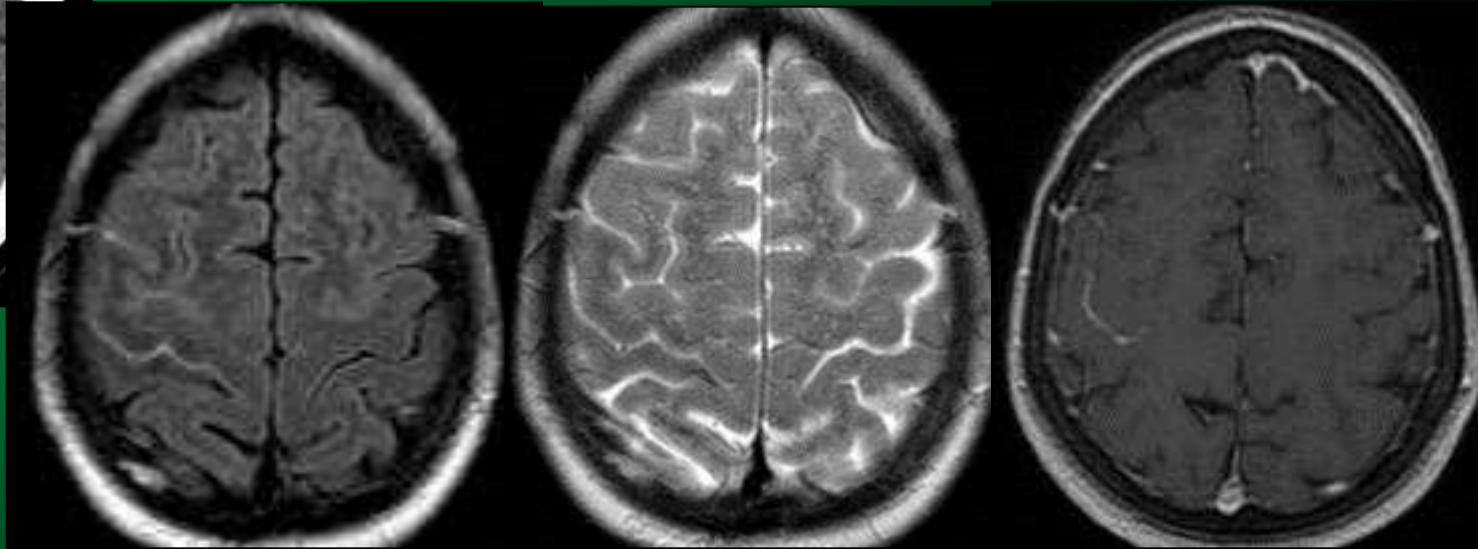
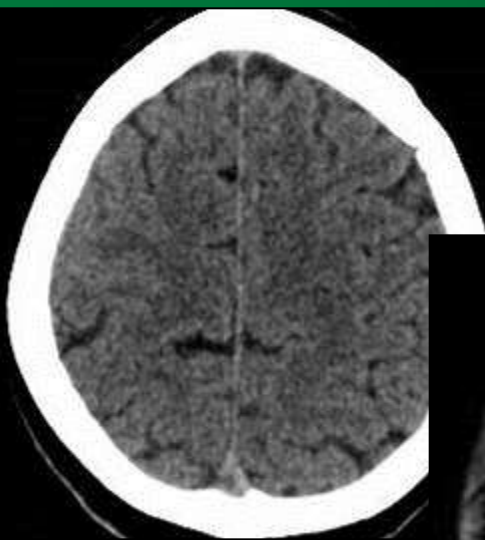
J3



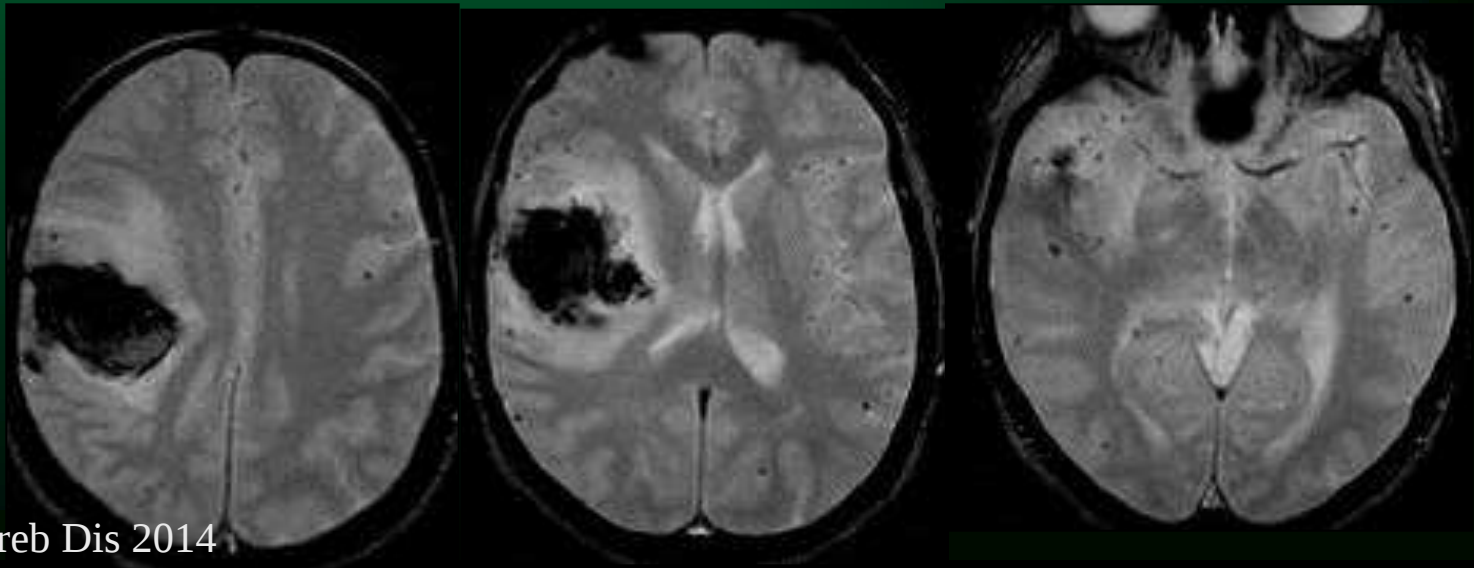
* Katoh, Surg Neurol 2007
Raposo Eur J Neurol 2010

Angiopathie amyloïde

Hématome secondaire



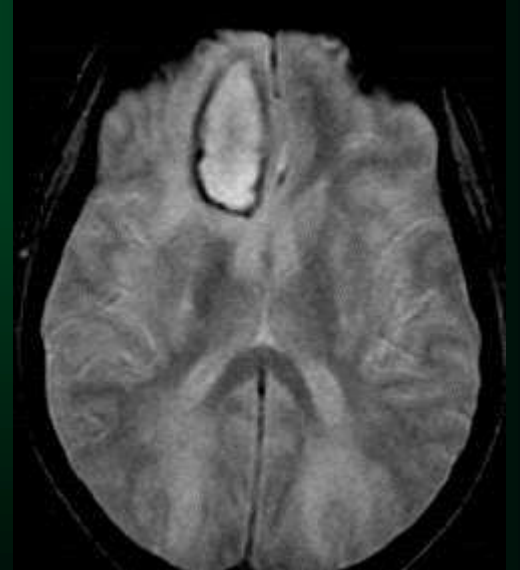
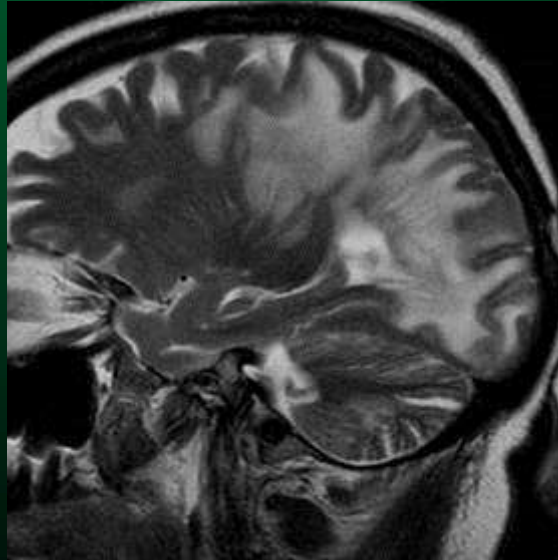
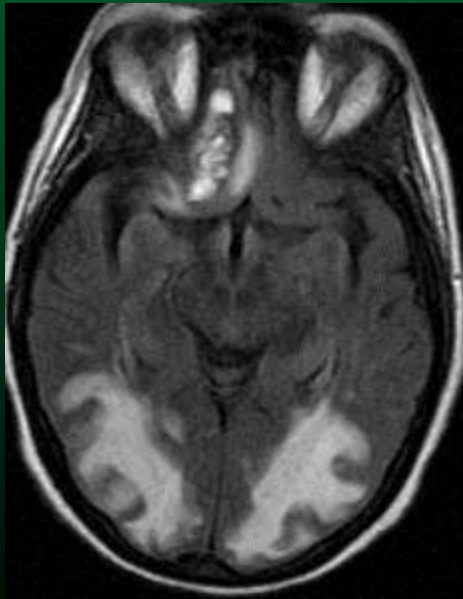
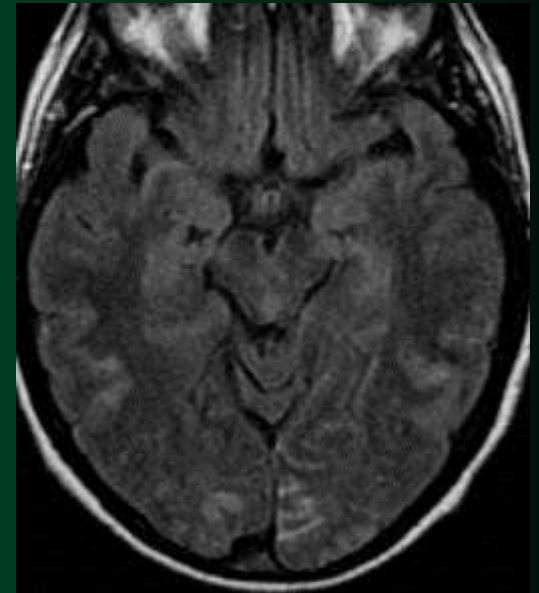
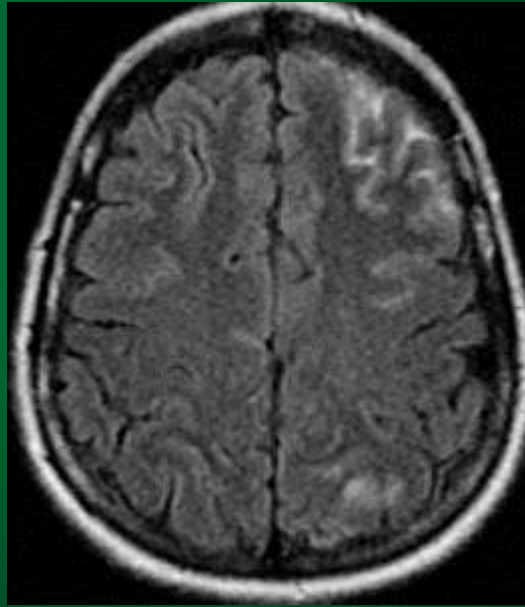
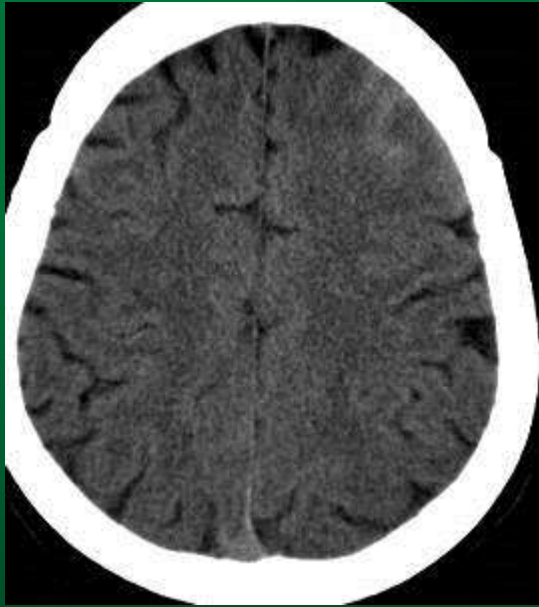
30% nouvelle hémorragie dans l'année



Autres causes plus rares*

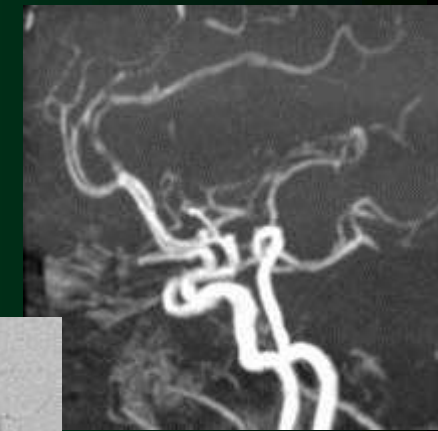
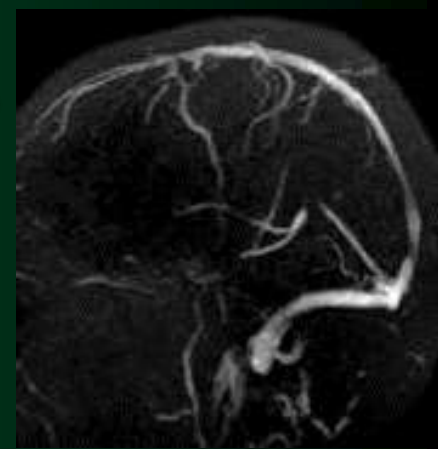
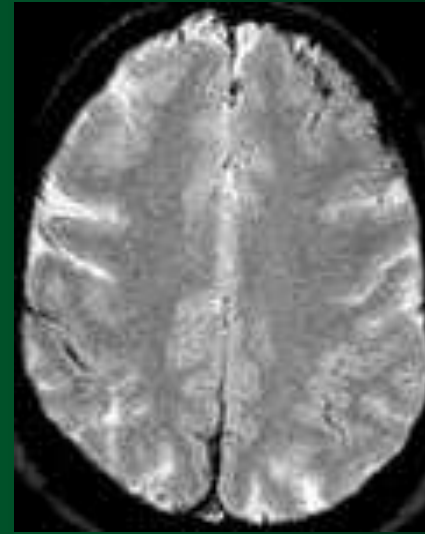
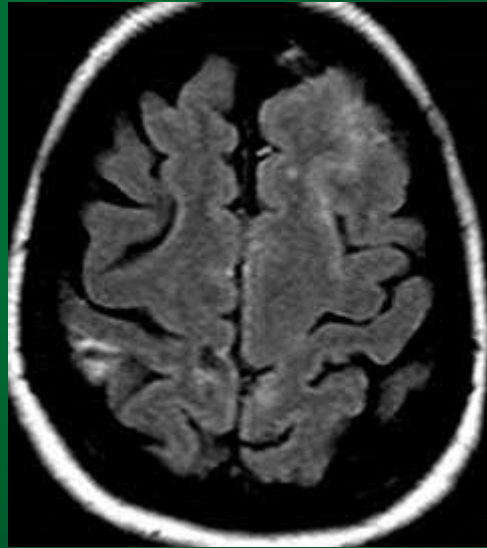
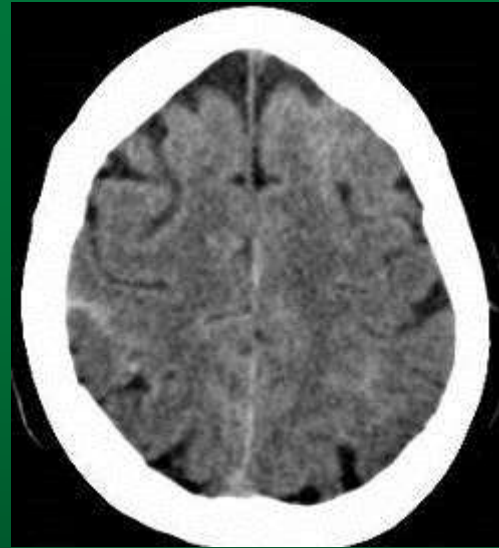


PRES-hemorragique (15%)*

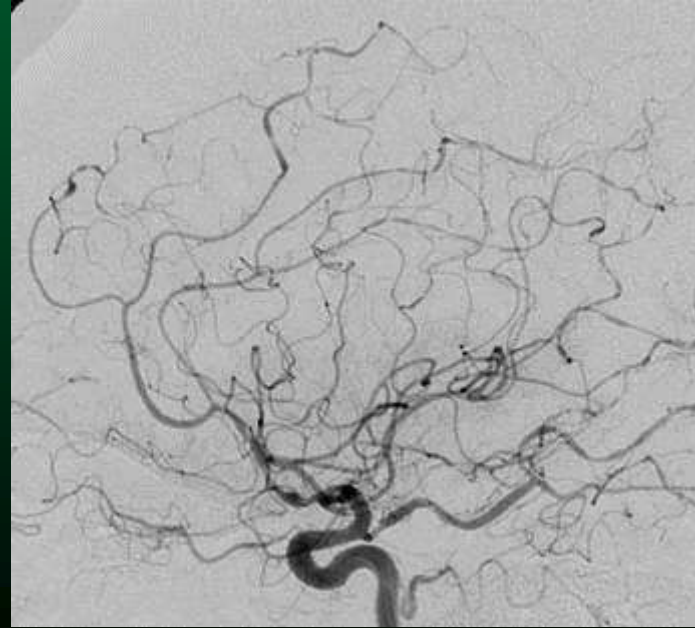
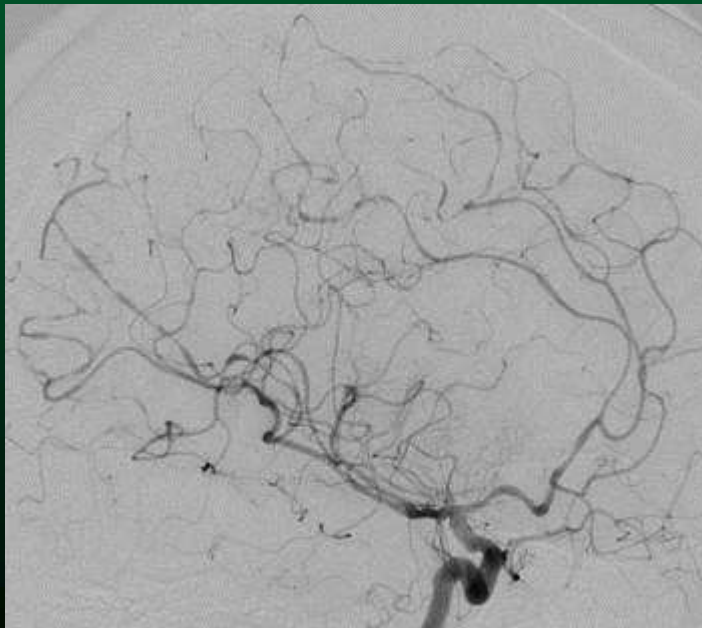


*Sharma, Neuroradiology 2010

Femme 50 ans, Céphalées aiguës

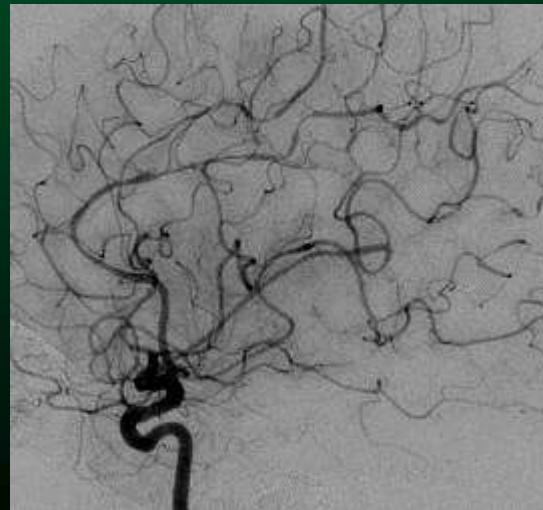
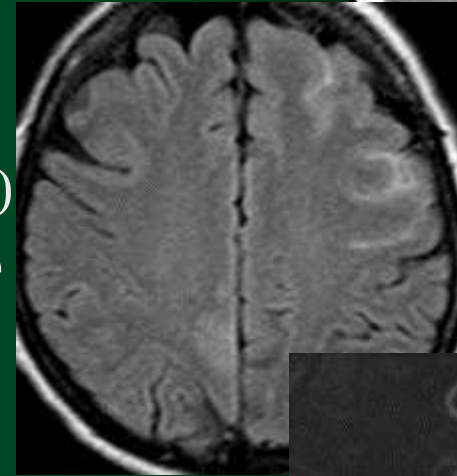
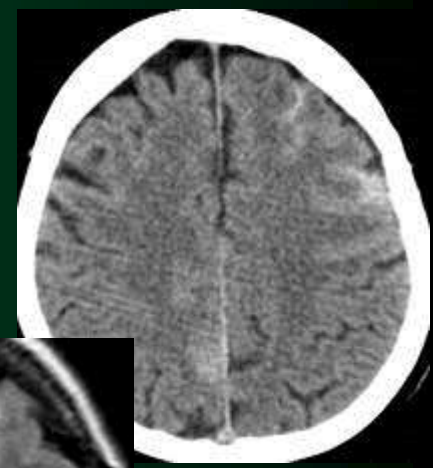


Syndrome de vasoconstriction cérébrale réversible

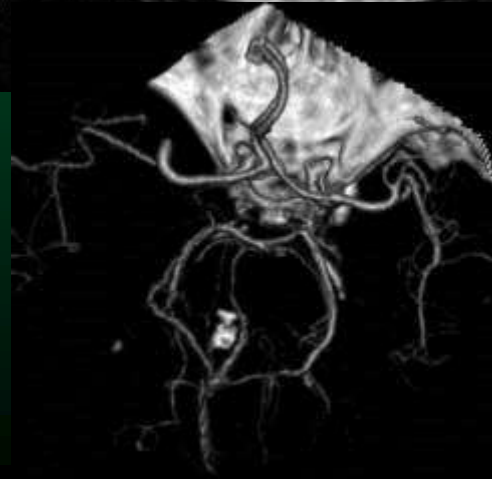
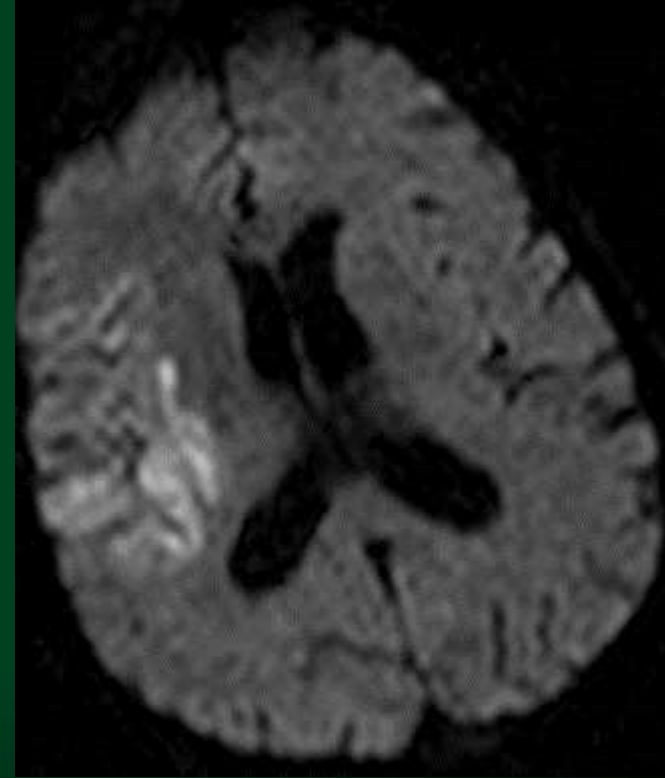
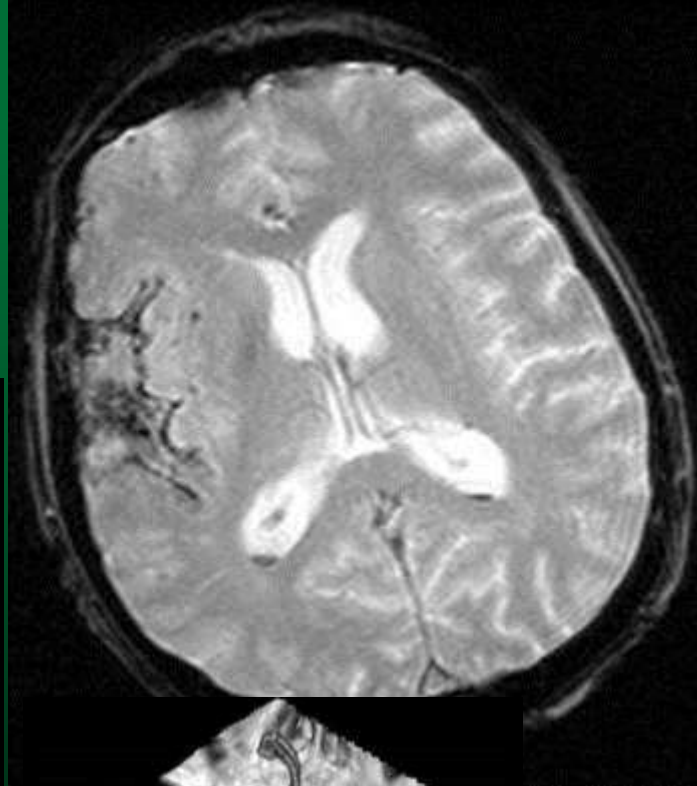


Vasoconstriction cérébrale réversible

- ◆ Regroupe:
 - Angiopathie cérébrale bénigne
 - Angéite du postpartum
 - Vasculopathie secondaire aux drogues (cannabis, cocaïne, décongestionnants nasaux)
- ◆ Céphalées répétitives en coup de tonnerre
- ◆ Avec ou sans déficit neurologique
- ◆ Crise comitiale
- ◆ Lésions ischémiques ou hémorragiques
- ◆ Vasoconstriction multifocale (ARM ou angio)
- ◆ Lésions réversibles en 3 mois

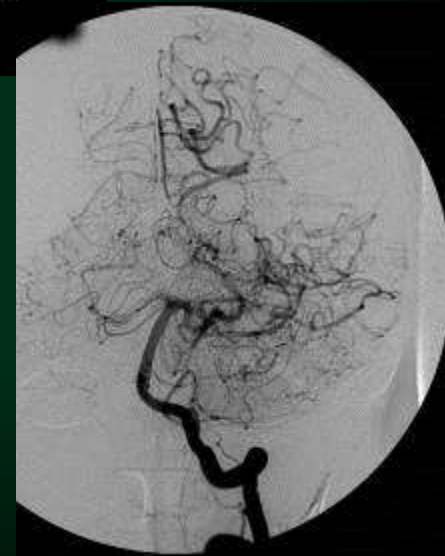
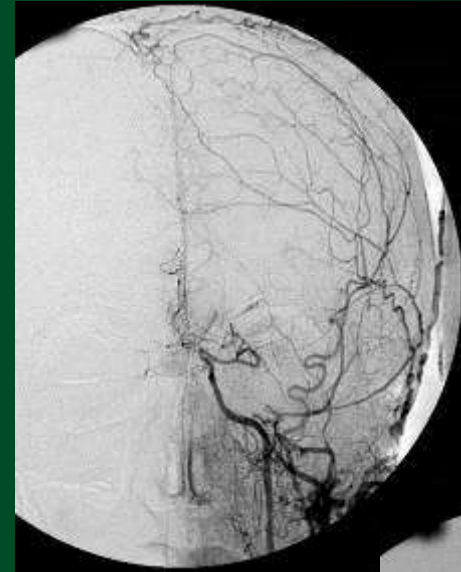
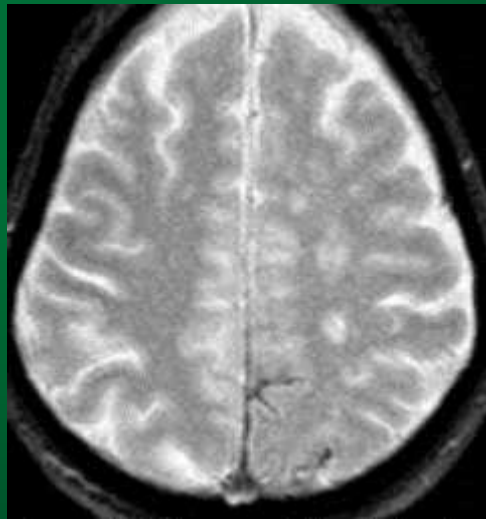
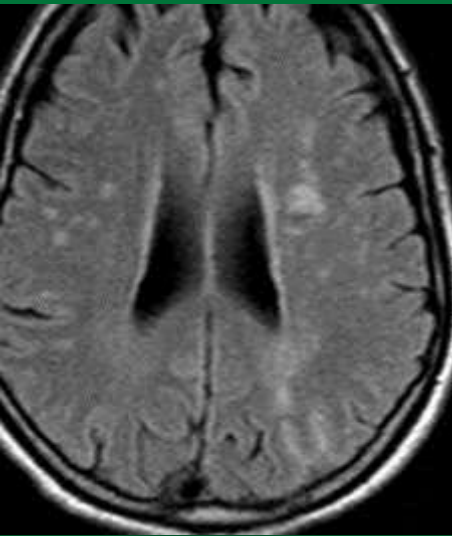


Céphalée. Déficit gauche J2



Ischémie + hémorragie =
endocardite infectieuse

HSA corticale et sténose artérielle



**Sténose
bulbe carotidien**



Moya-moya

Conclusion

◆ HSA

- Rupture anevrysme
- Périmésencephalique
- Dissection
- Fistule / MAV



◆ HSA corticale (angioscan + IRM)

- Femme jeune, céphalées : Thrombose veineuse
- Personne âgée, AIT : Angiopathie amyloïde
- Anevrysme mycotique (endocardite)
- Syndrome de vasoconstriction régressive
- Encéphalopathie postérieure régressive (PRES)
- Sténose artérielle (intra/ extracranienne)