

RDGN 2120 NEURORADIOLOGIE

Année académique 2019-2020

Pathologie traumatique aiguë crânio-cérébrale et spinale



Dr Thierry Duprez

Professeur Clinique

Chef de Clinique

Université catholique de Louvain
Cliniques universitaires Saint-Luc

Thierry.Duprez@uclouvain.be

<http://www.saintluc.be>

3^{ème} Cours du jeudi 10 octobre 2019

Trauma crânien

lésions osseuses



collections
péri-cérébrales
ou intra-ventriculaires

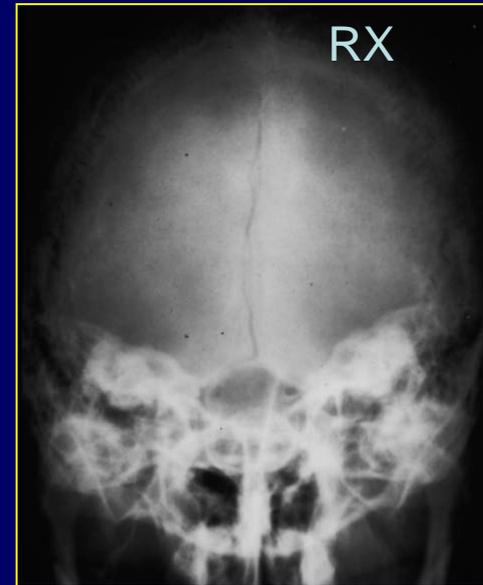
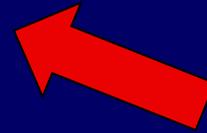
**lésions
parenchymateuses**

AR 27.02.2002

RX crâne remboursée dans le cadre traumatique ssi

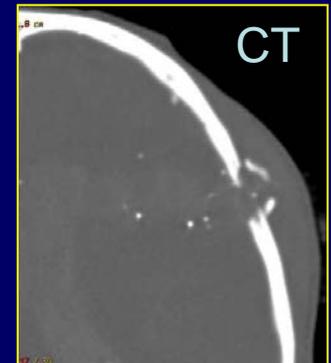
* trauma facial majeur

* enfant > 5 ans



CT scanner crâne remboursé dans le cadre traumatique ssi

- Symptômes neurologiques focaux ou généralisés
- Lacération jusque sur l'os ou > 5 cms
- Anamnèse ou examen inadéquat (E, alcool, enfant, ...)
- Suspicion de lésion intentionnelle ou fontanelle bombante enfant < 5 ans
- Suspicion de CE ou plaie crânienne pénétrante
- Fracture du crâne en CR
- Perte de LCS par nez ou perte de sang ou LCS par oreille

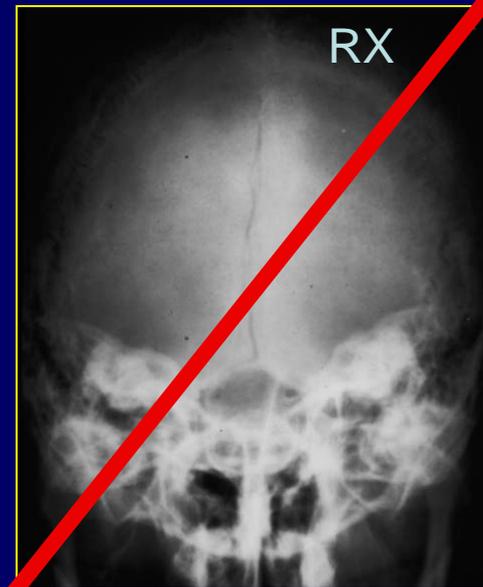
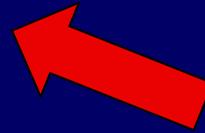


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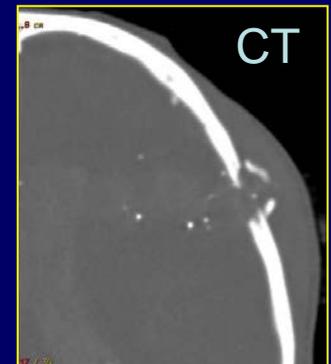
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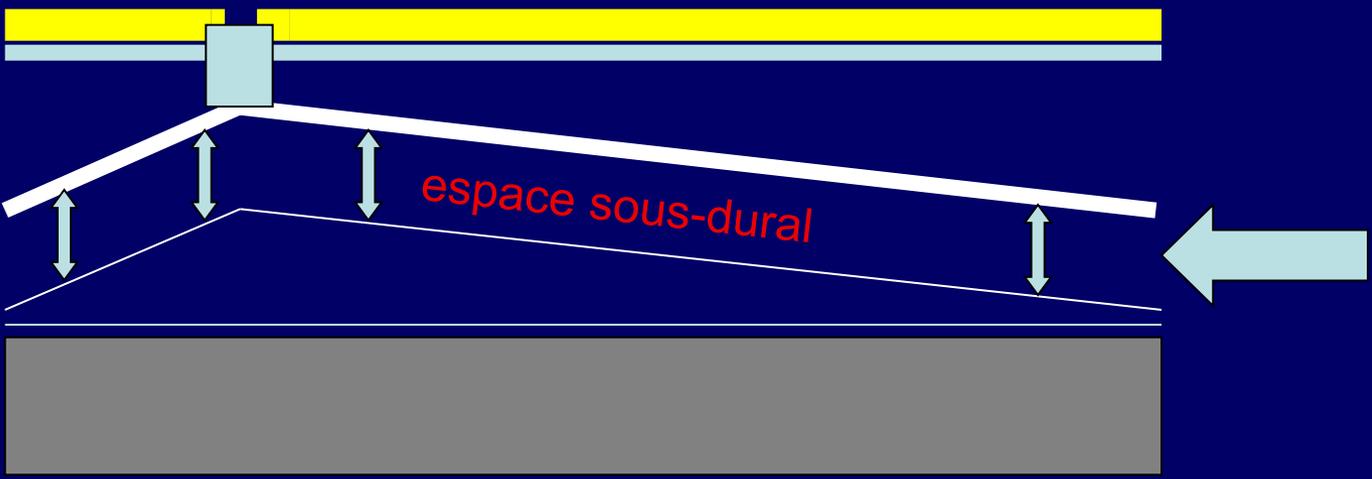
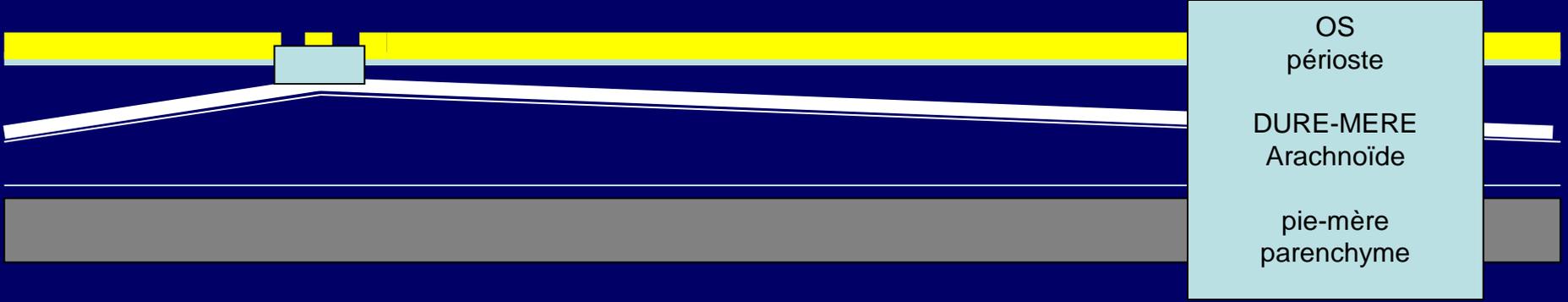
* enfant > 5 ans

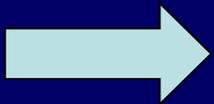


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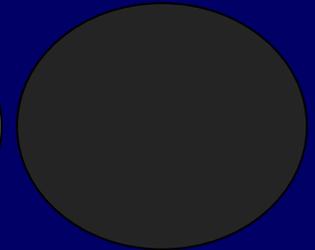
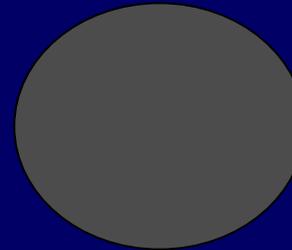
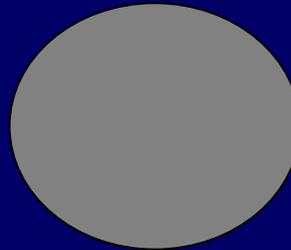
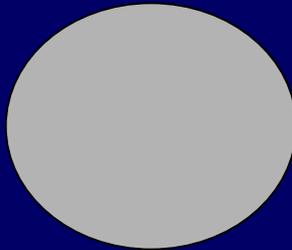
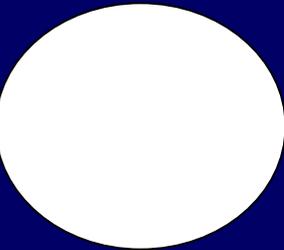
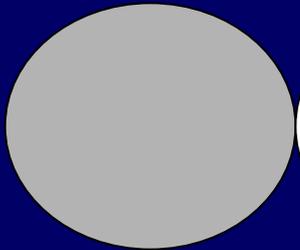
Densité de l'hématome (forme collectée, non "washed out" par le flux de LCR)

H0

H6

J5

J30



60

90

60

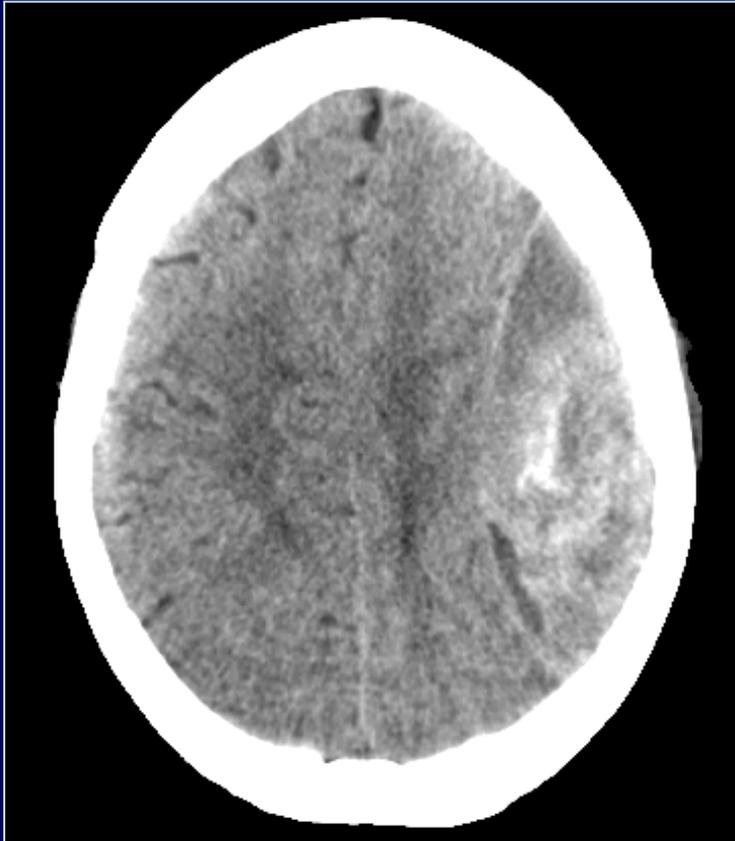
40

30

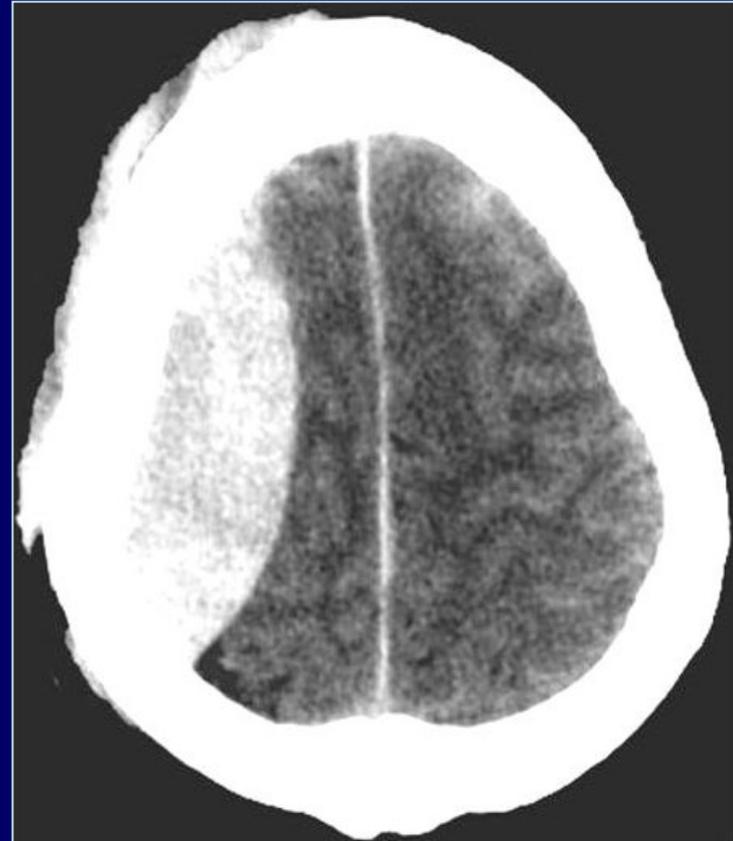
20

Hématome Extra-Dural (HED)

hyperaigu



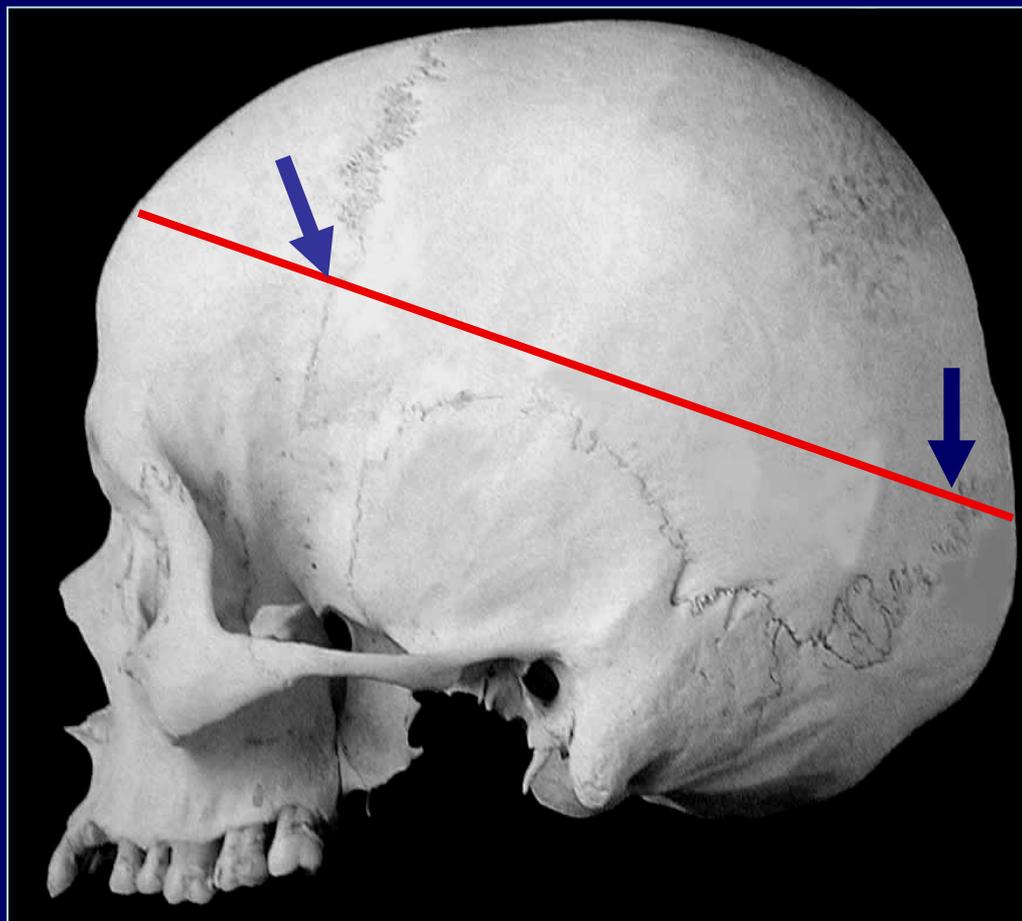
aigu



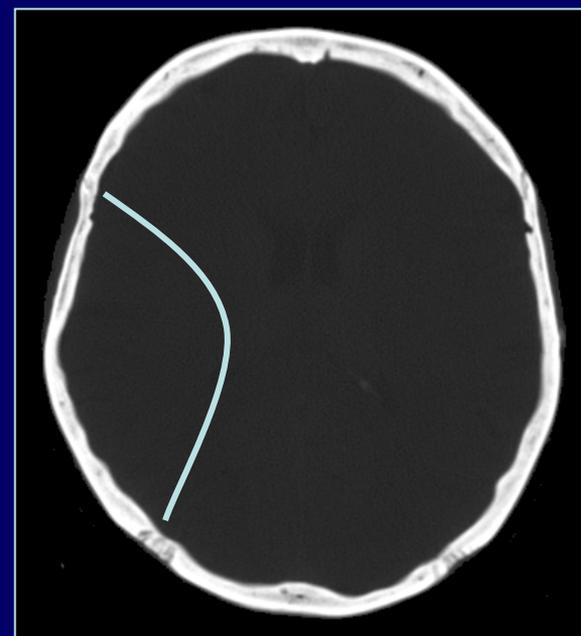
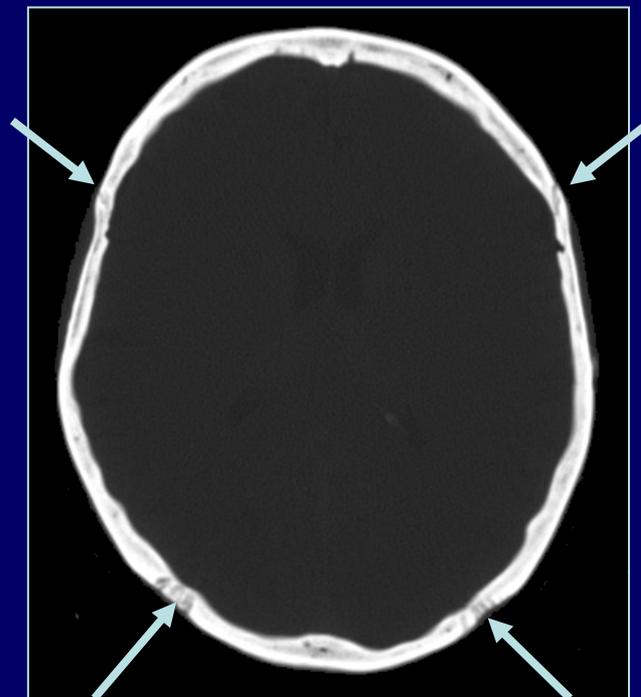
Saignement artériel → débit & pression → hétérogène

en phase aiguë

Arrêt par les sutures



→ lentille bi-convexe

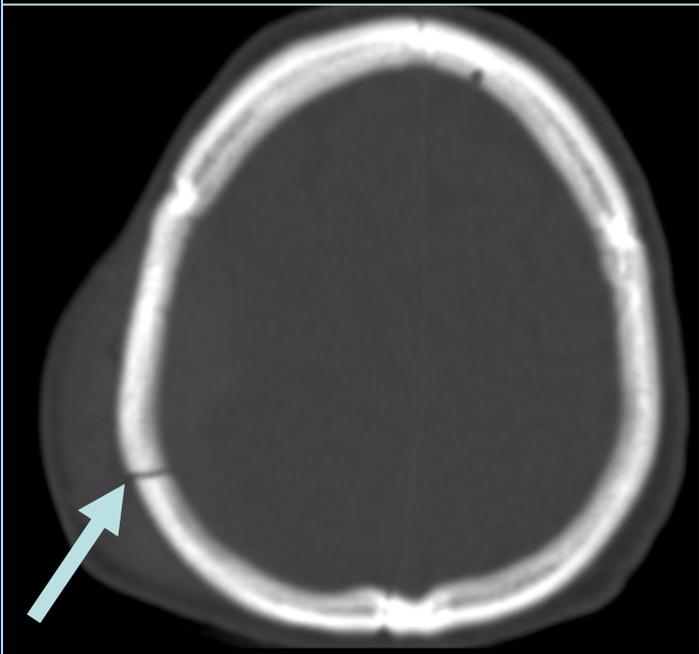


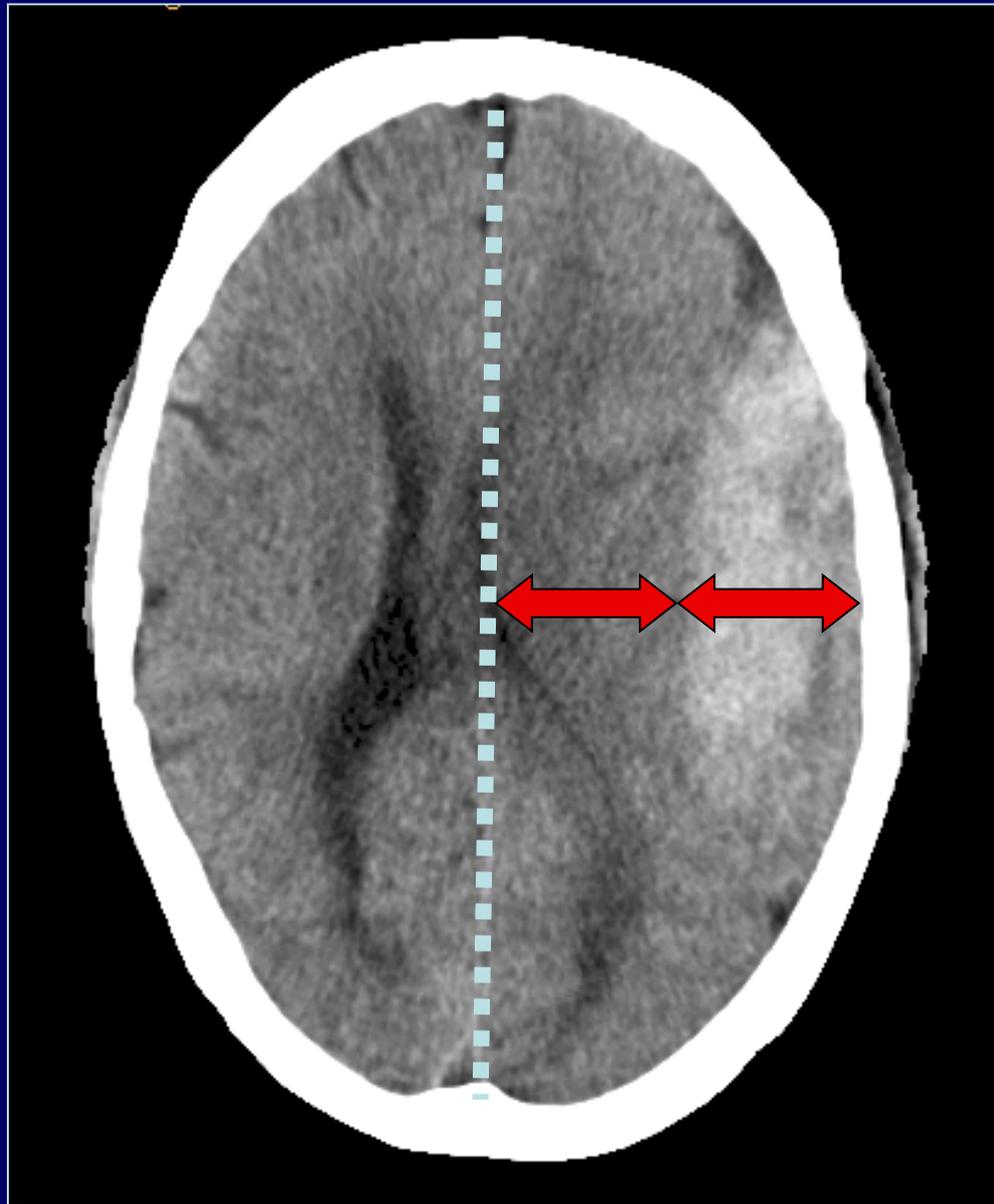
hétérogène



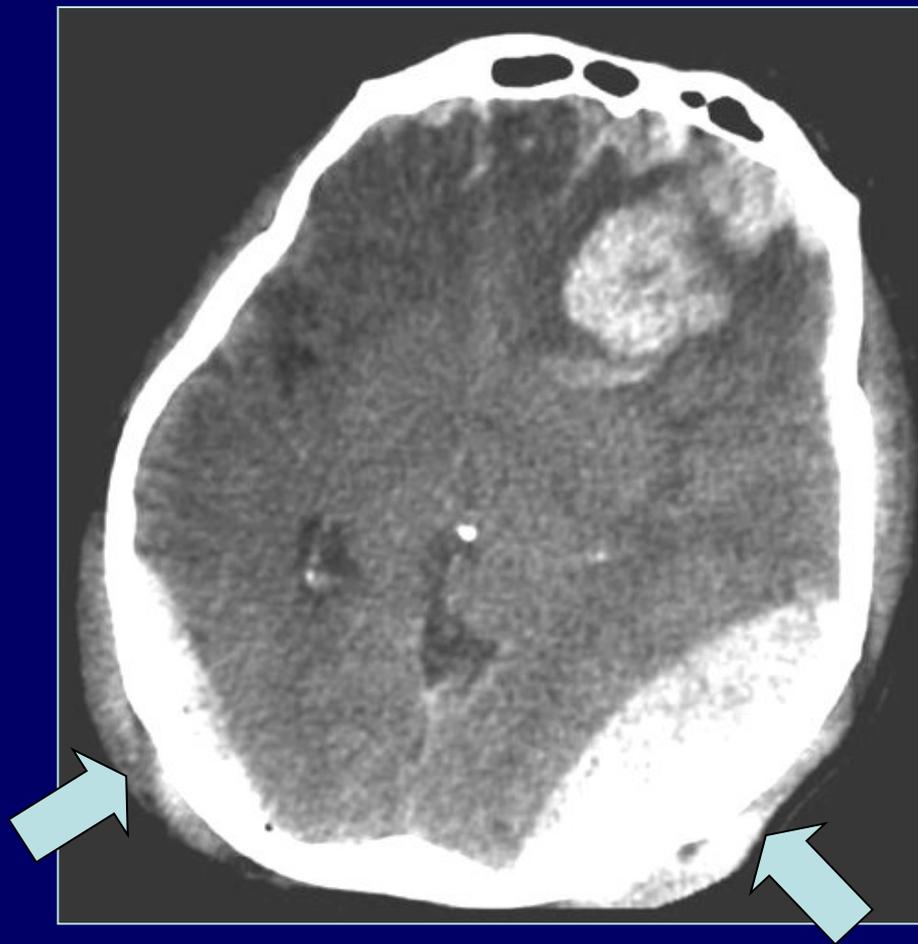
bulles d'air

fracture

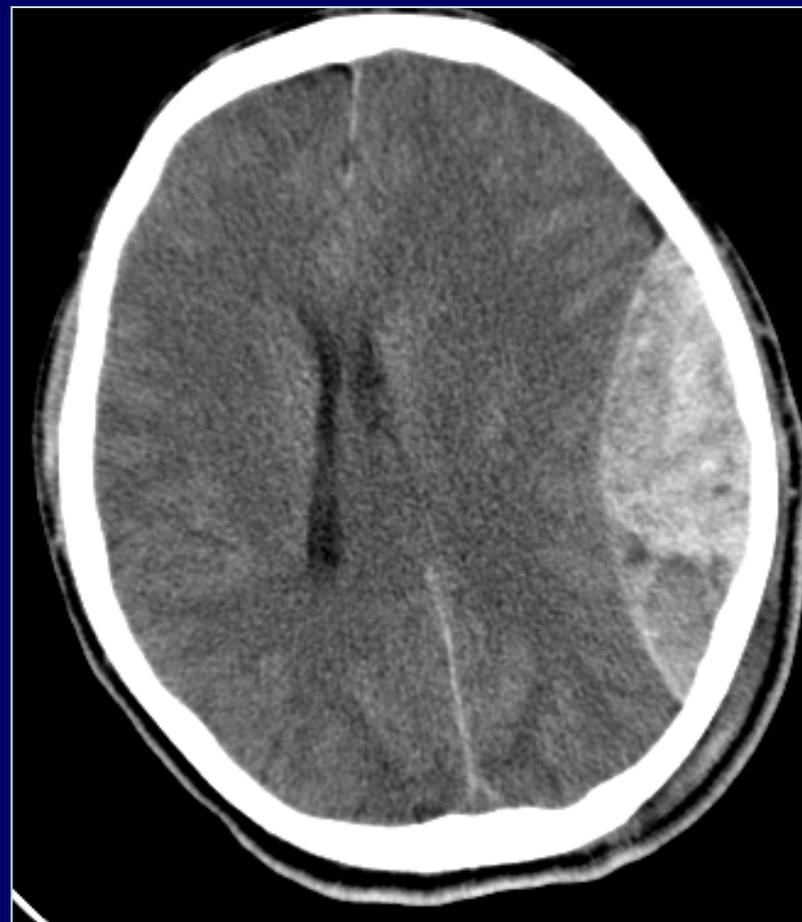




Effet de masse '*proportionnel*'

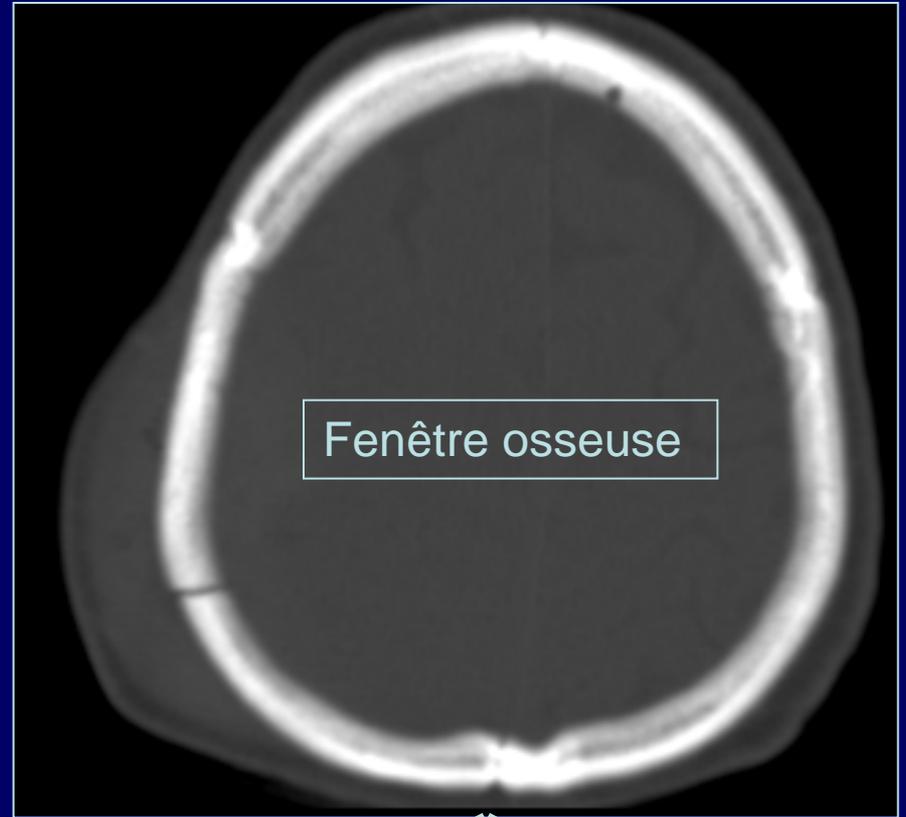
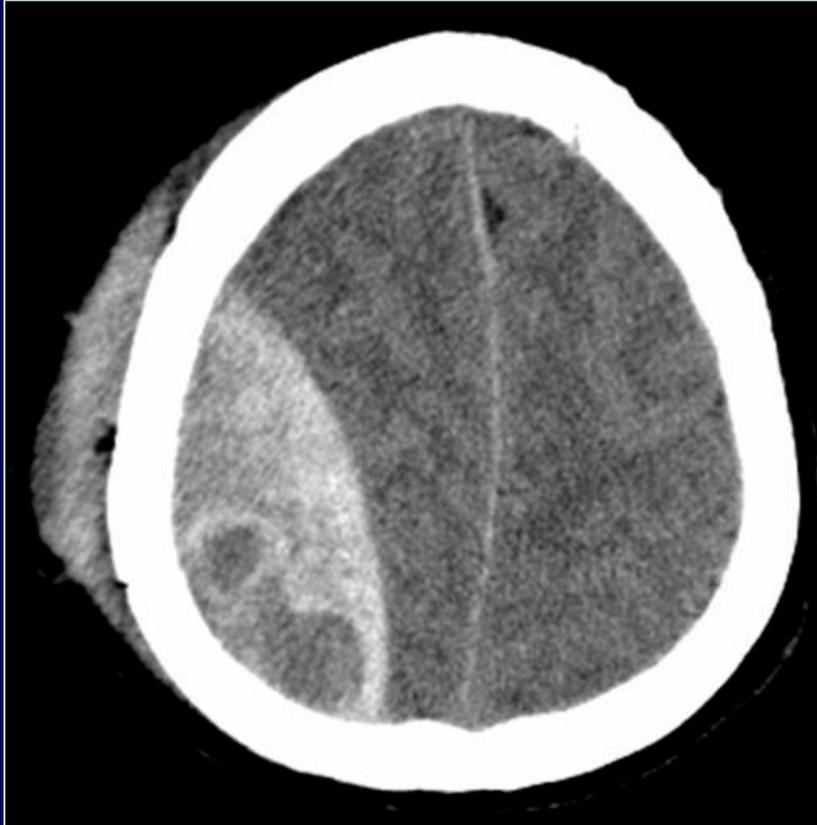


Peu fréquemment bilatéral



Isolé dans 1 à 2 cas sur 3

Tuyau ∞_{++}

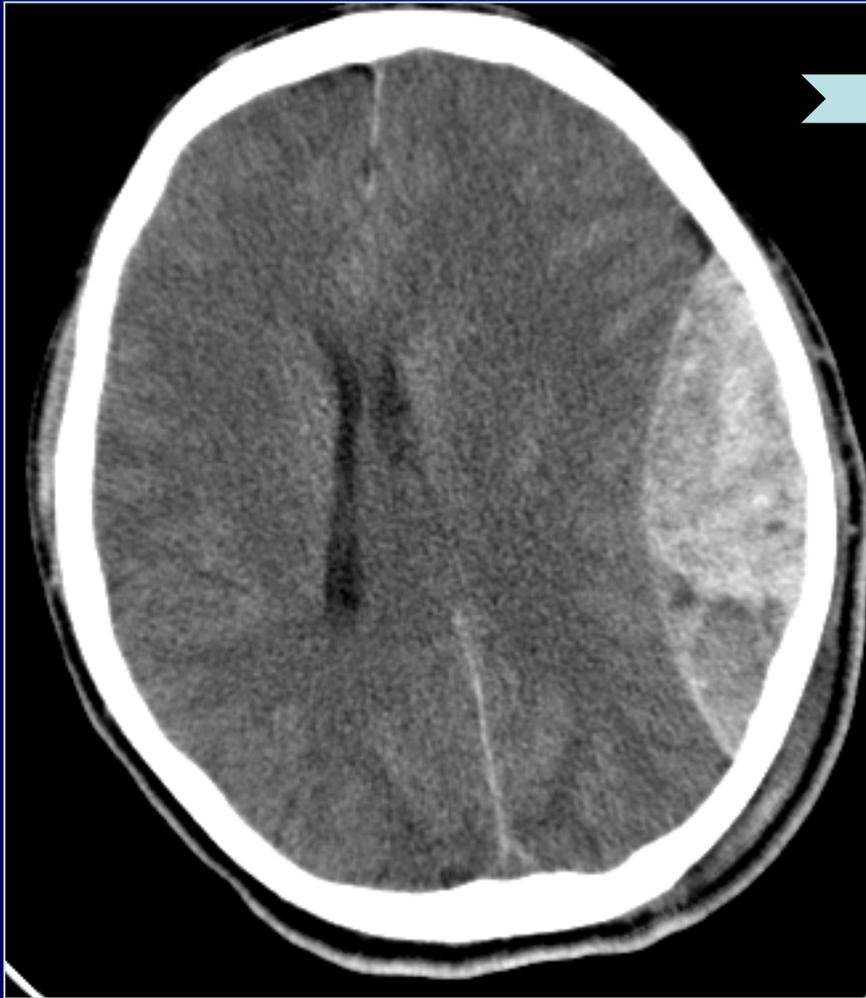


#

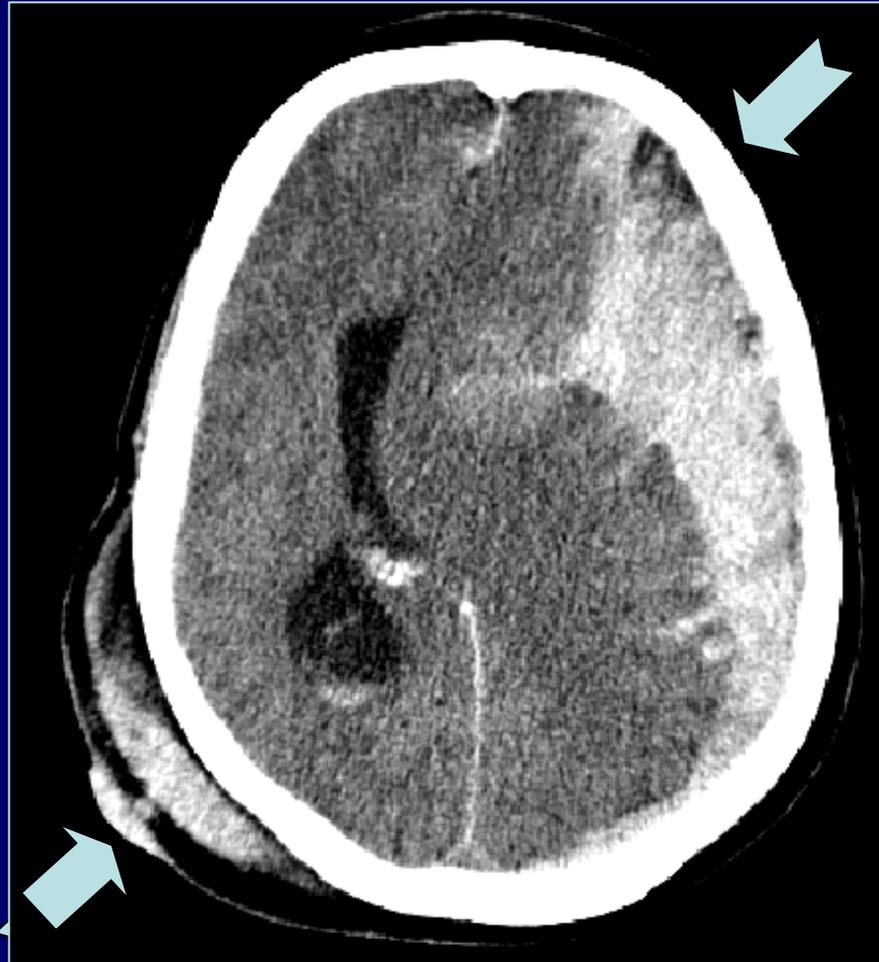
bulles

sutures

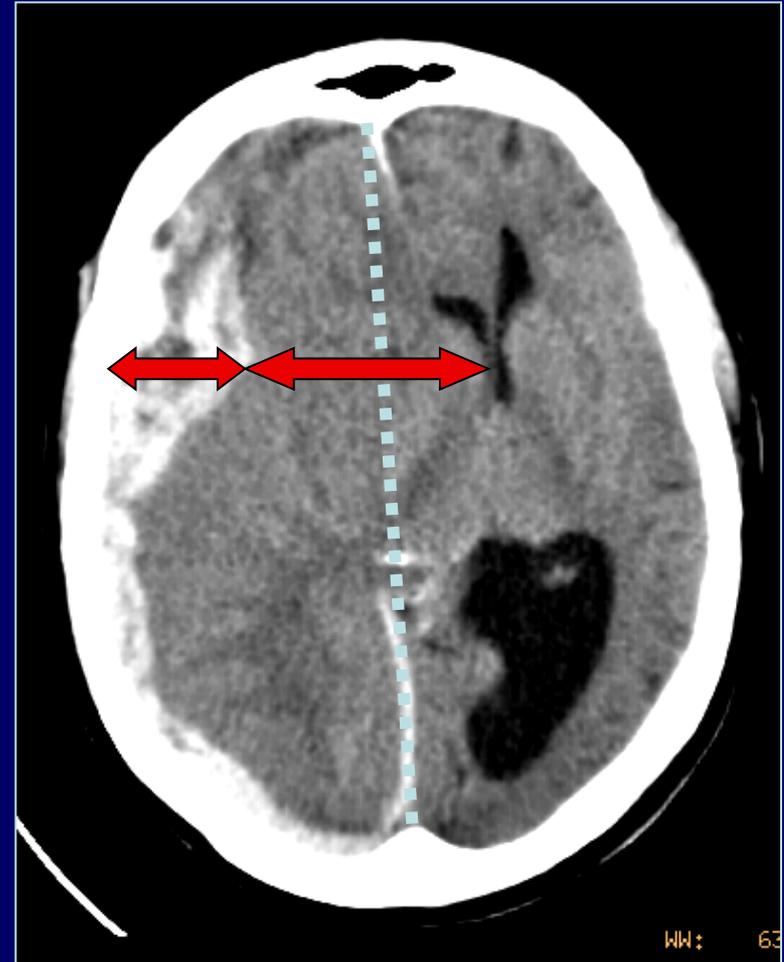
Traitement chirurgical...



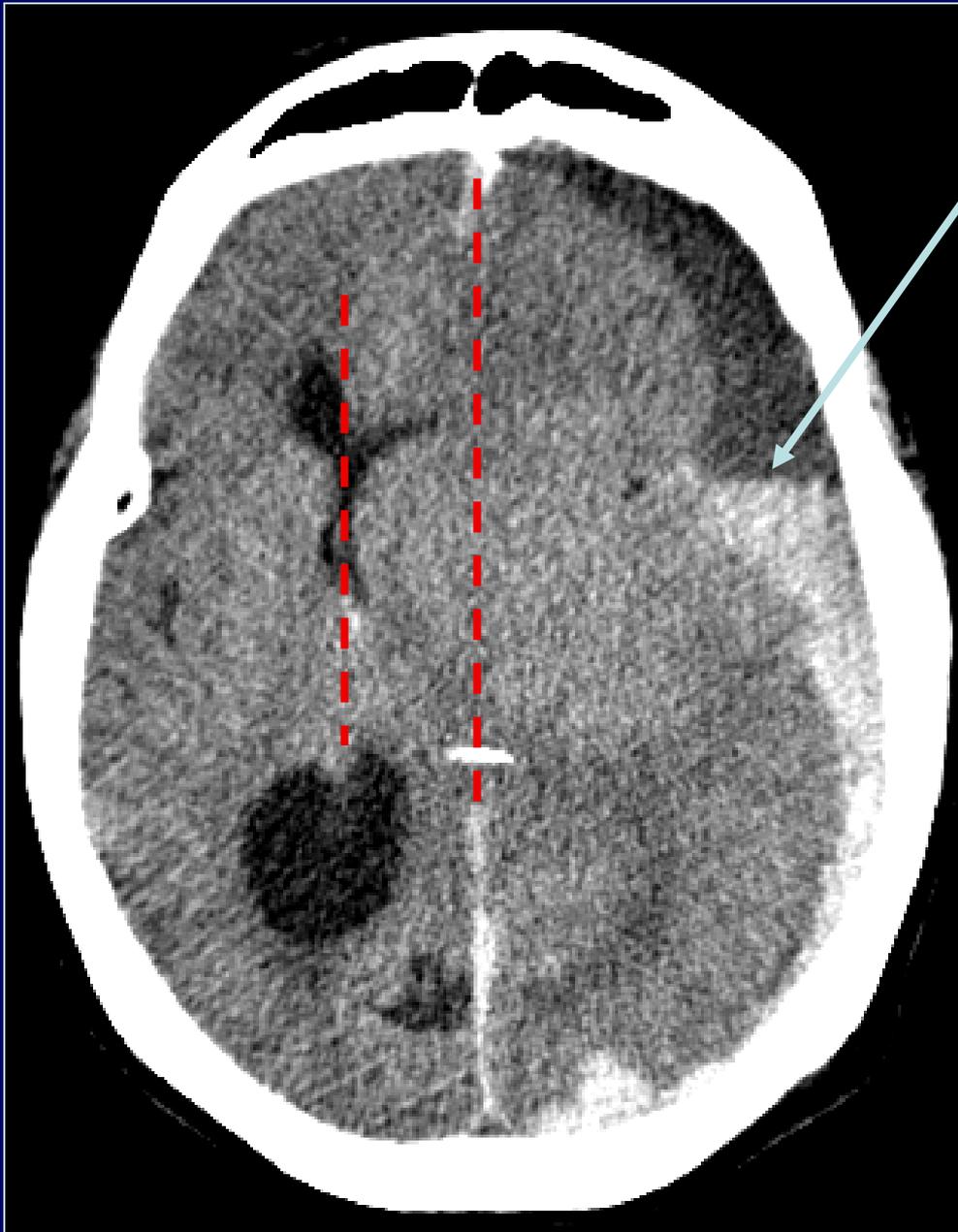
Hématome Sous-Dural (HSD)



**coup – contre-coup
lésions associées**



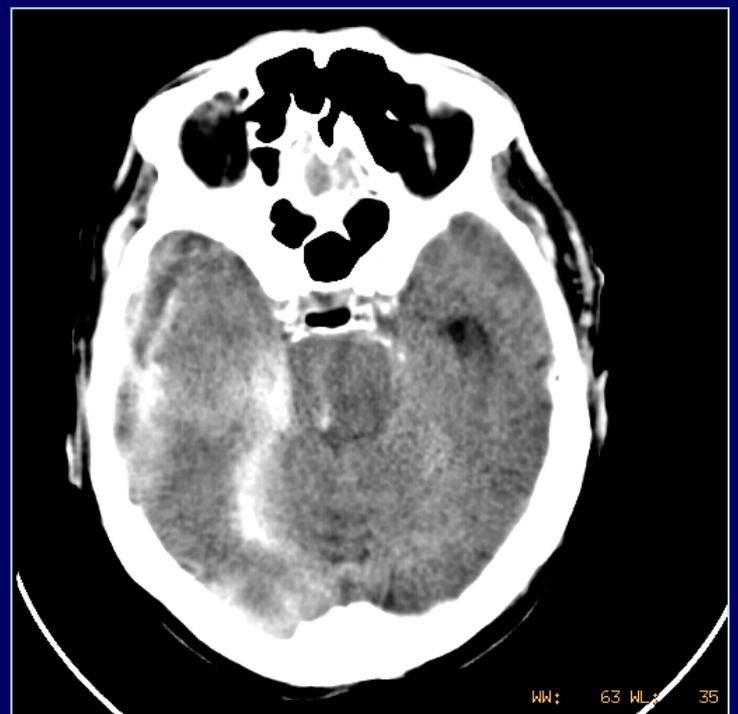
**effet de masse
"hors proportion"**



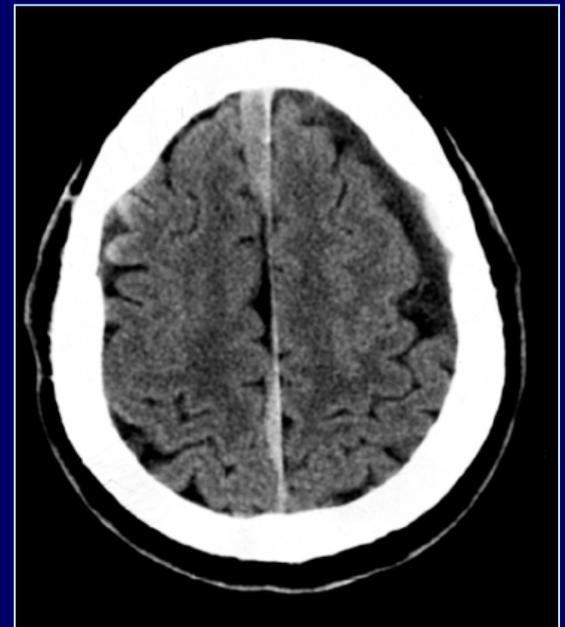
Veineux
Saignements à répétition

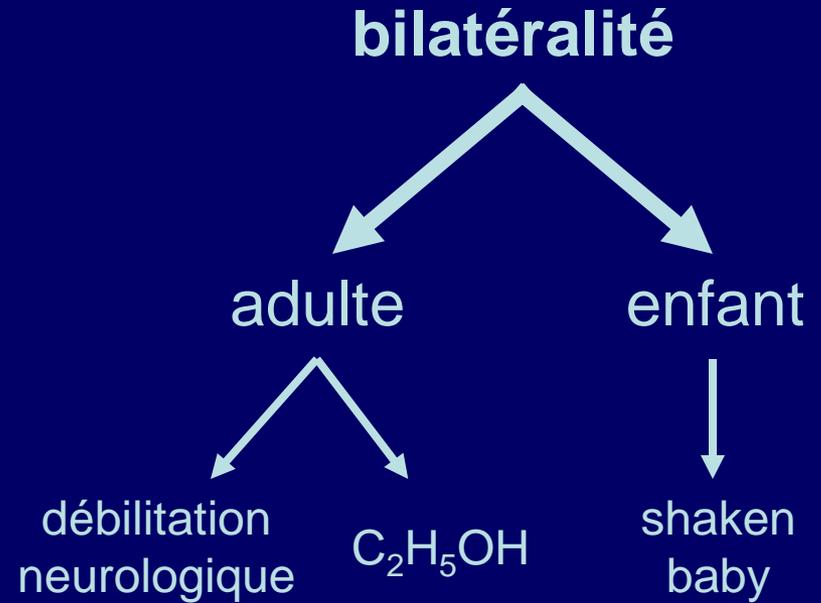
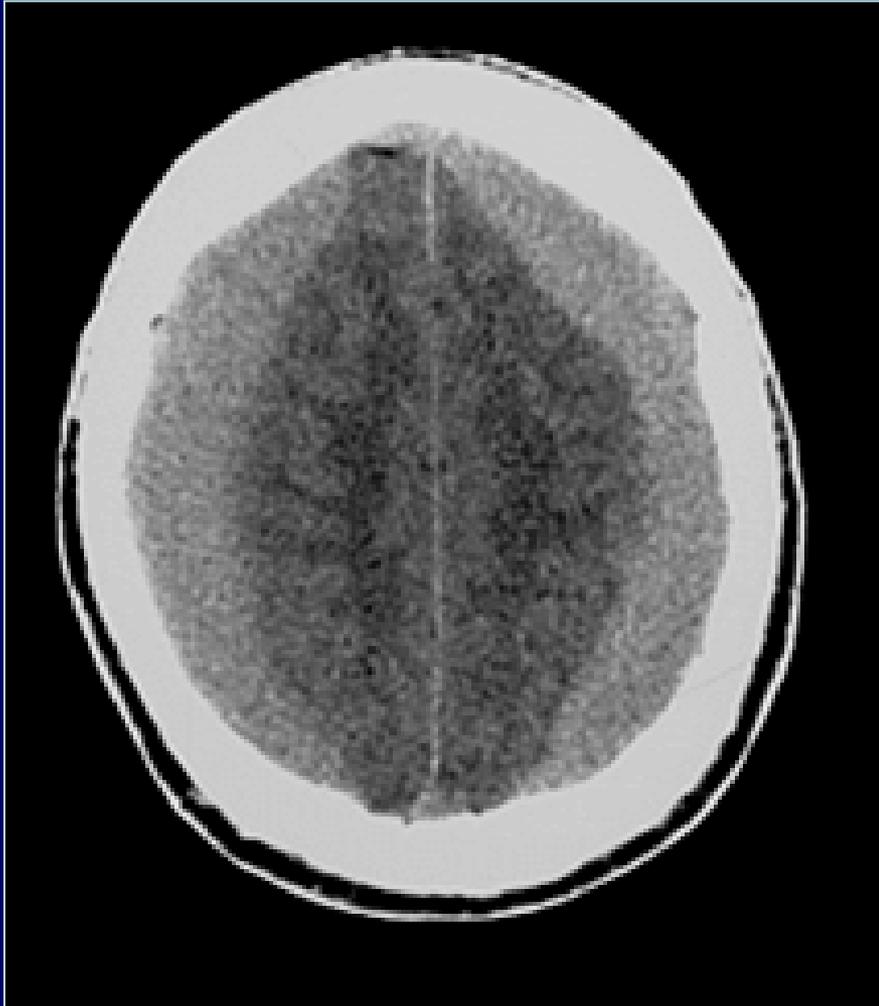
Effet de masse
→ *engagement*

**lésions
associées**



Suit les replis durs





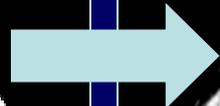
Bilatéralité
→
réduction de l'effet de masse

'durabilité'...

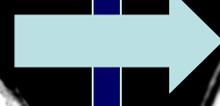
... évolution dans le temps



hyper



iso



hypo

Piège 1: cloisonnement



Faux HED...



... vrai HSD

Piège 2: isodensité

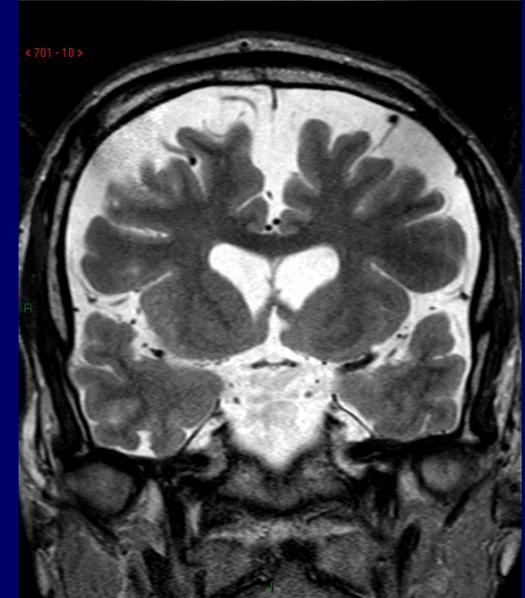
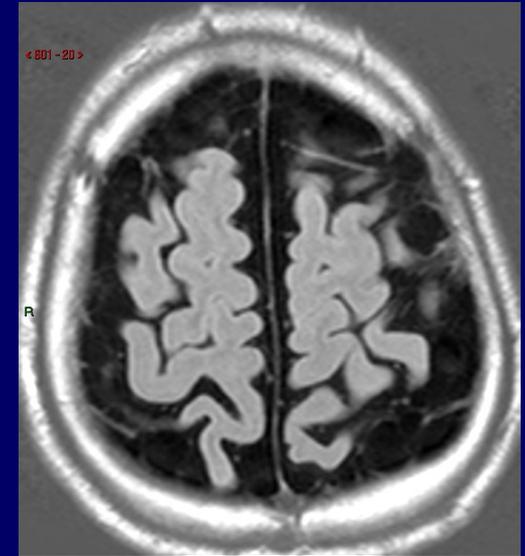
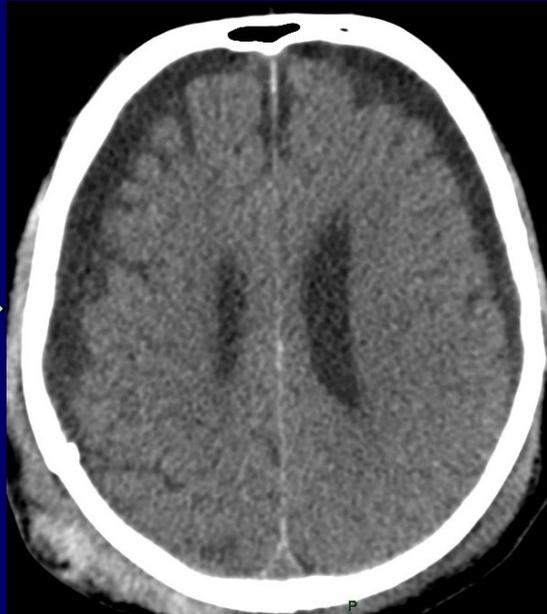
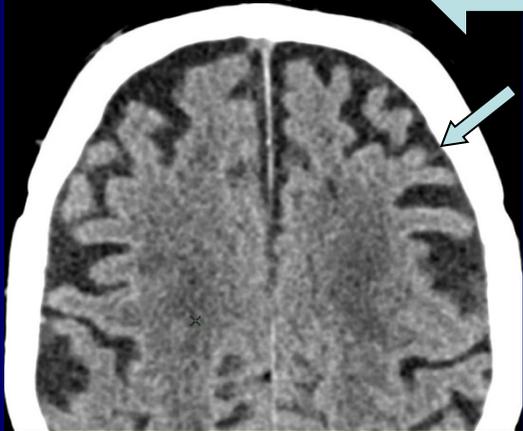
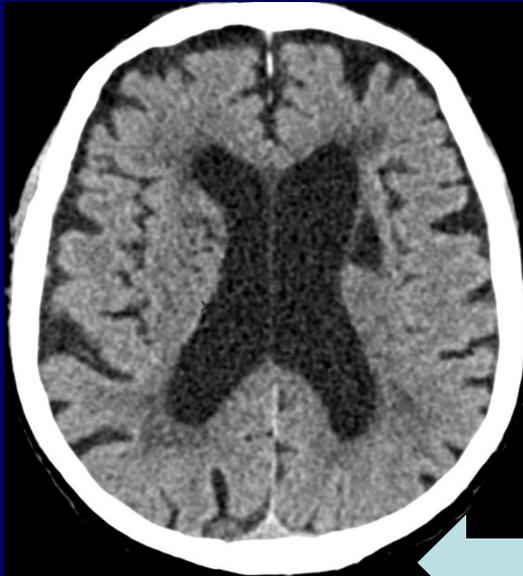


Effet de masse 'sans masse'...



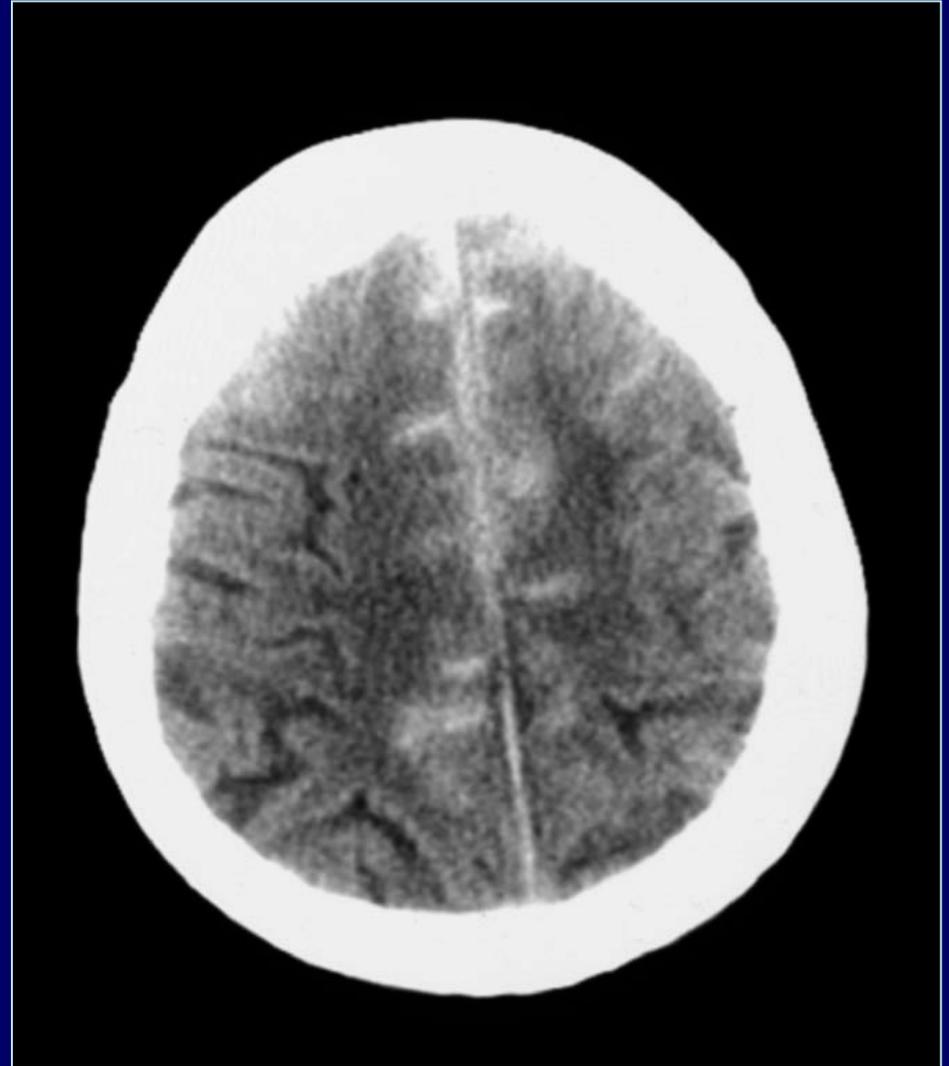
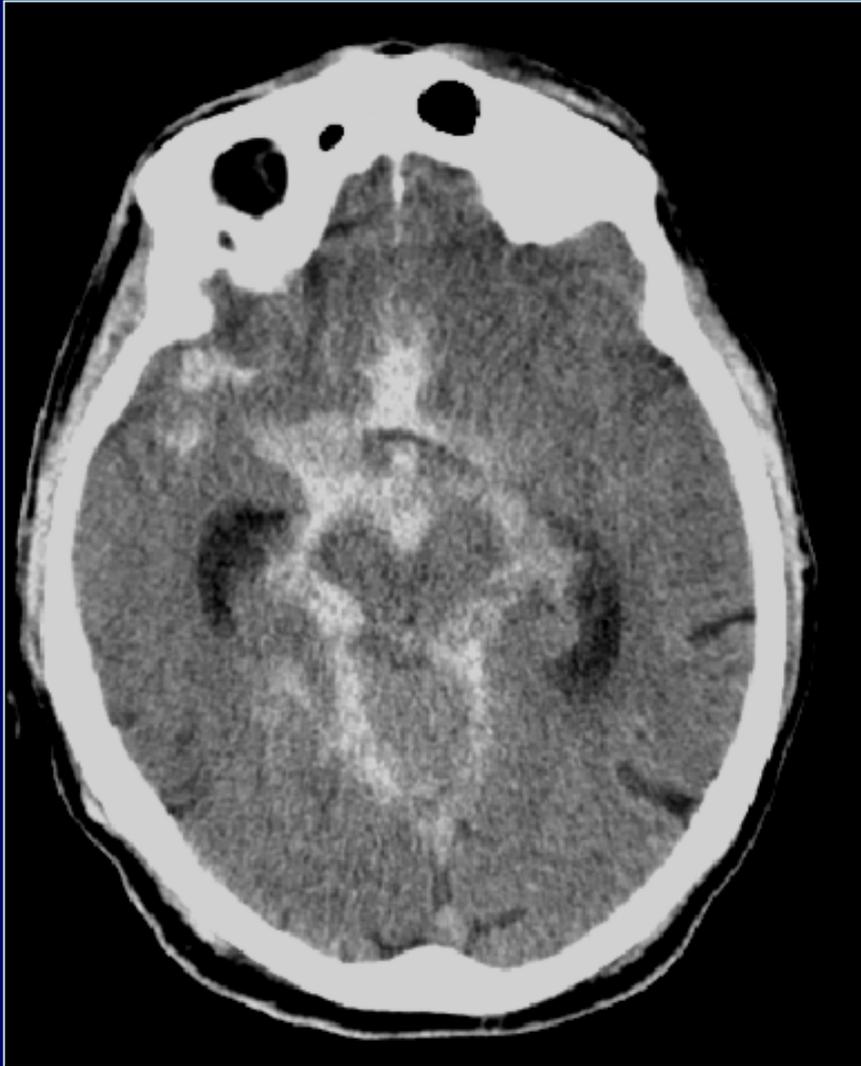
... mais avec collection péri-cérébrale

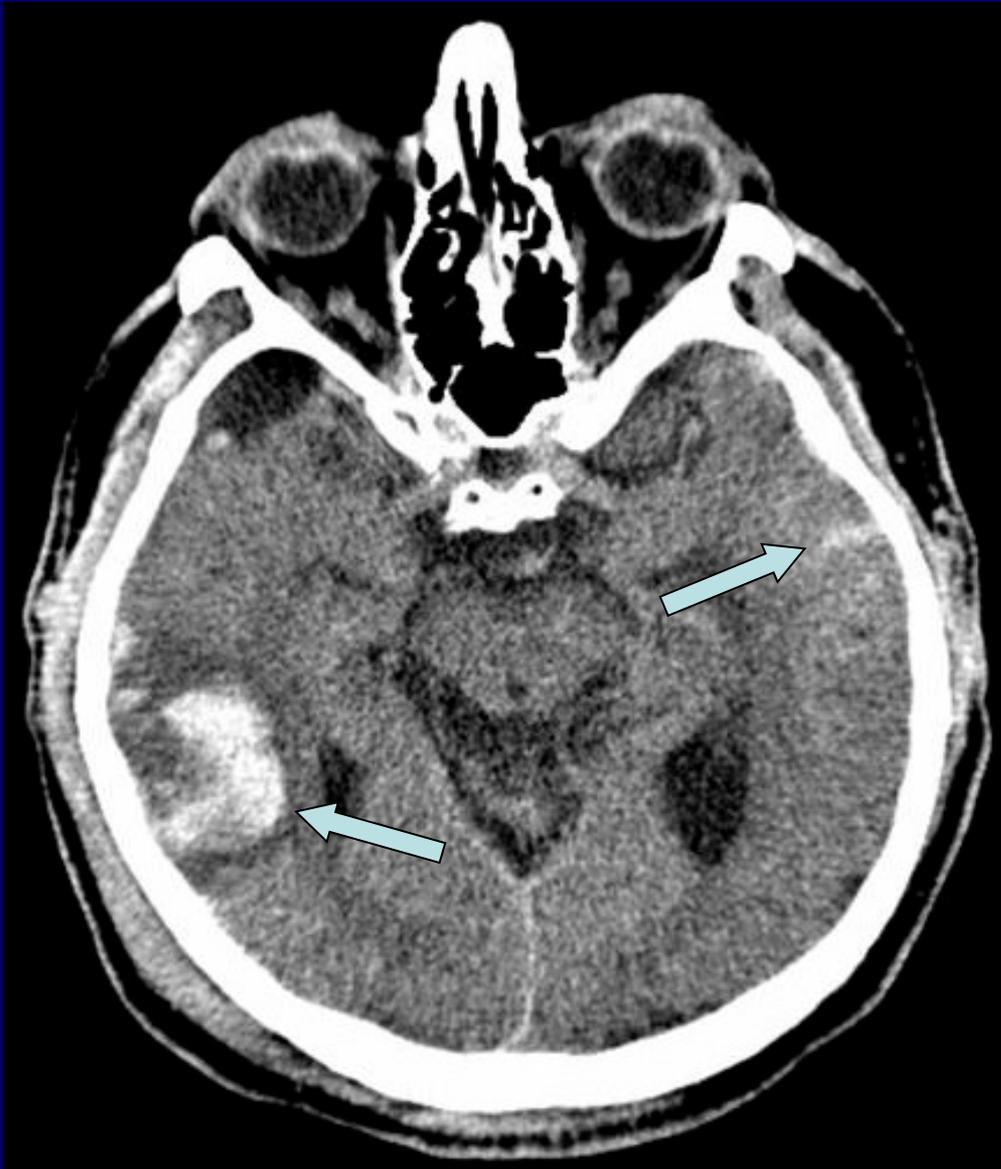
Piège 3: 'décollement' A VACUO



veines-pont

Hémorragie Sous-Arachnoïdienne (HSA)





**associations
lésionnelles
fréquentes**

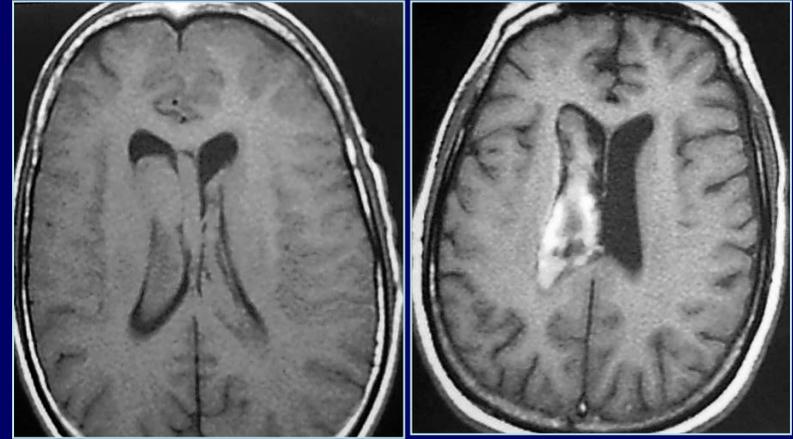


*pas l'élément clinique à l'avant-plan
en traumatologie crânienne*

Hémorragie intra-ventriculaire



en TDM



en IRM

En aigu → caillot → occlusion des voies de circulation du LCS

En chronique → hydrocéphalie secondaire → 'fibrose' ?

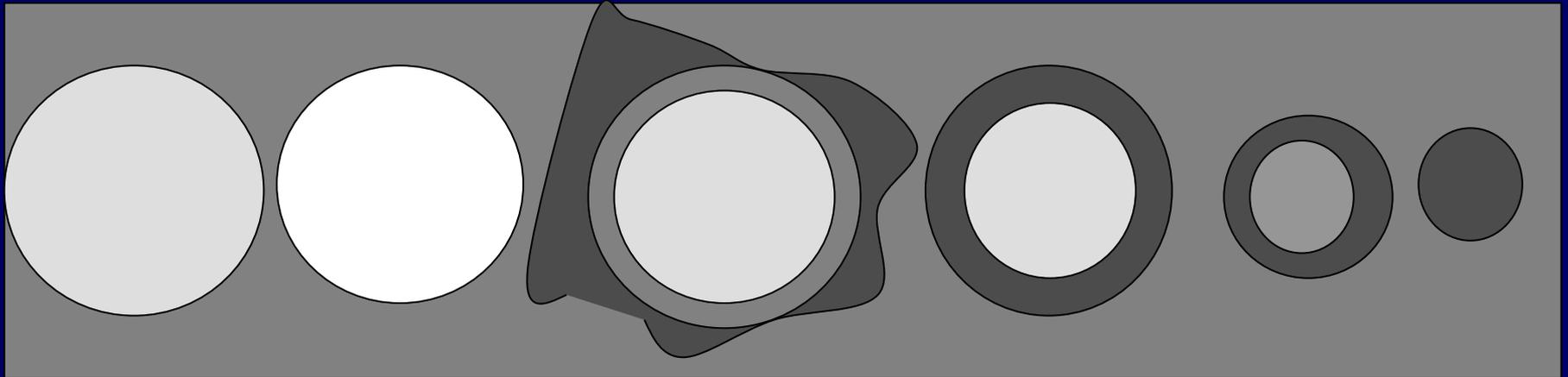


↓ résorption LCS ?

Lésions parenchymateuses



Constitution de l'**œdème péri-lésionnel** (localisation intra-parenchymateuse)



DRAINAGE

CORTICOTHERAPIE

effet de masse

=

$$\sum [\text{Vol hématome}] + [\text{Vol oedème}]$$

Contusions directes



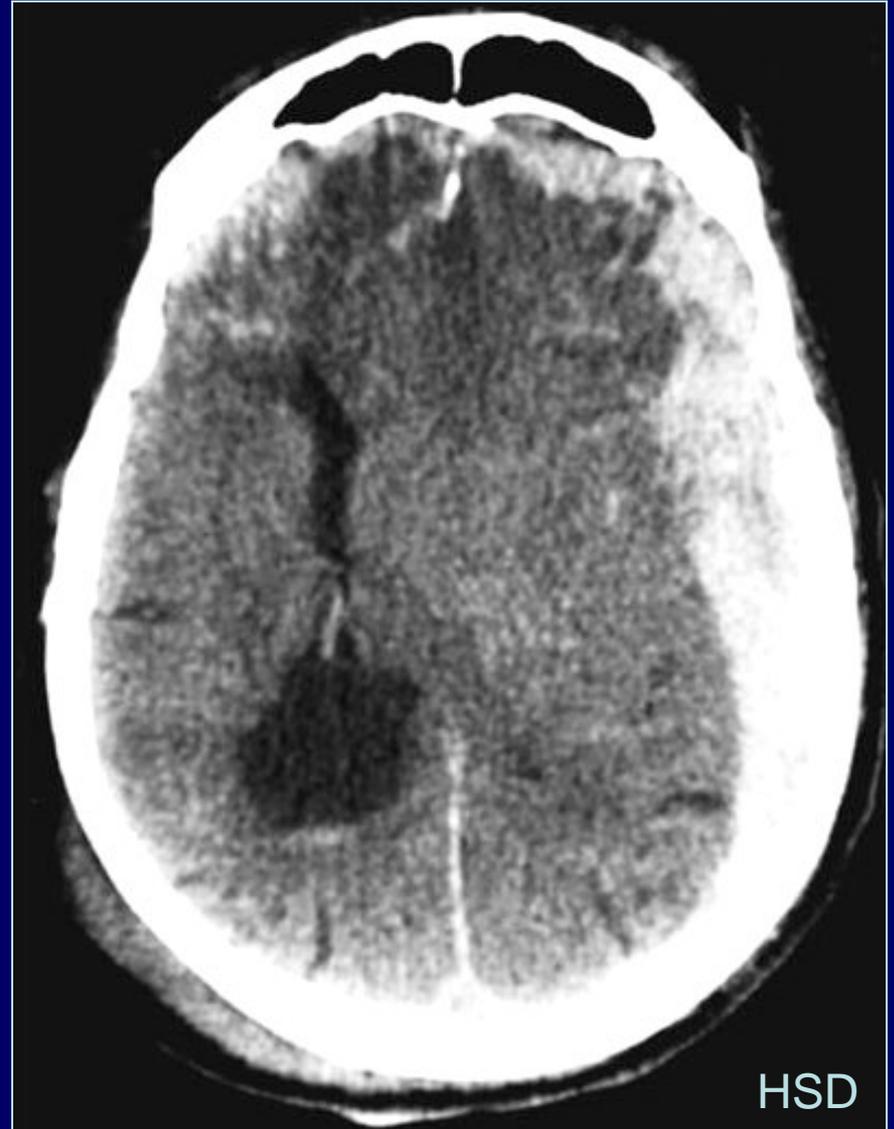
Phase aiguë...



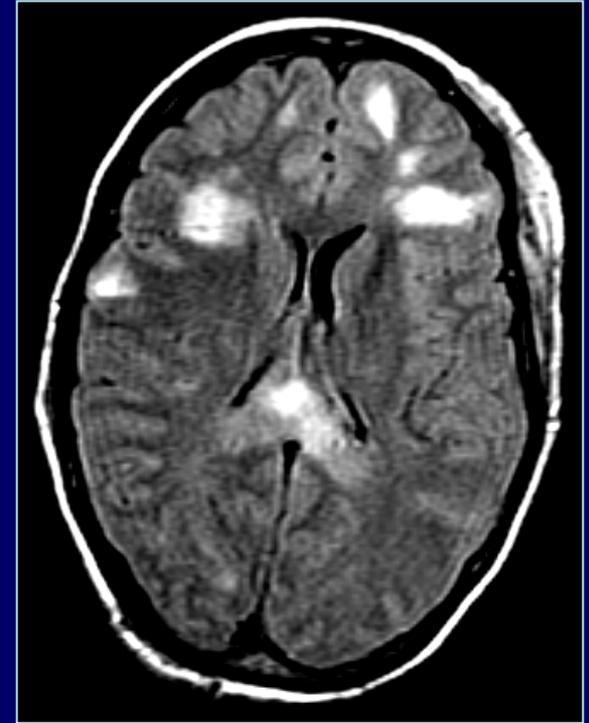
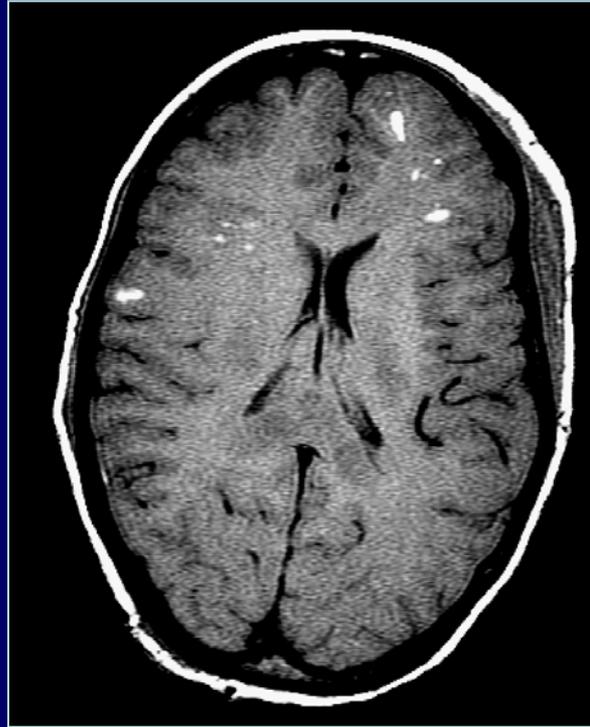
... chronique



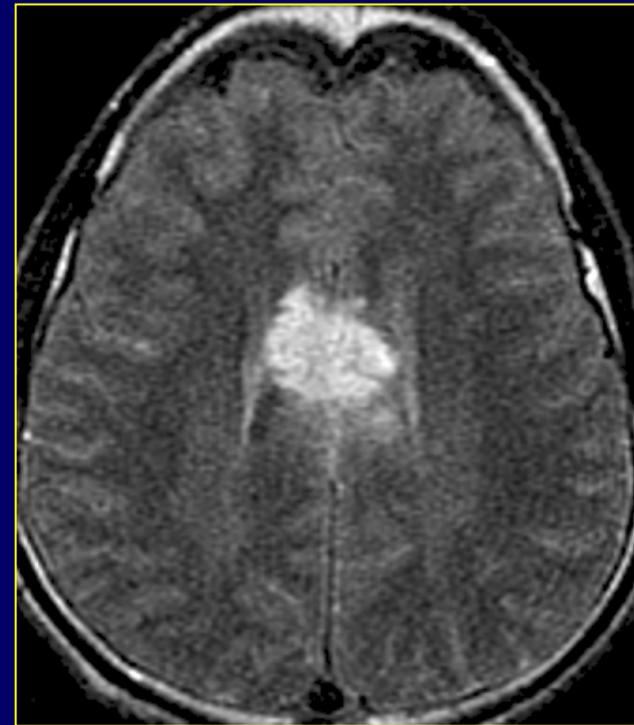
associations



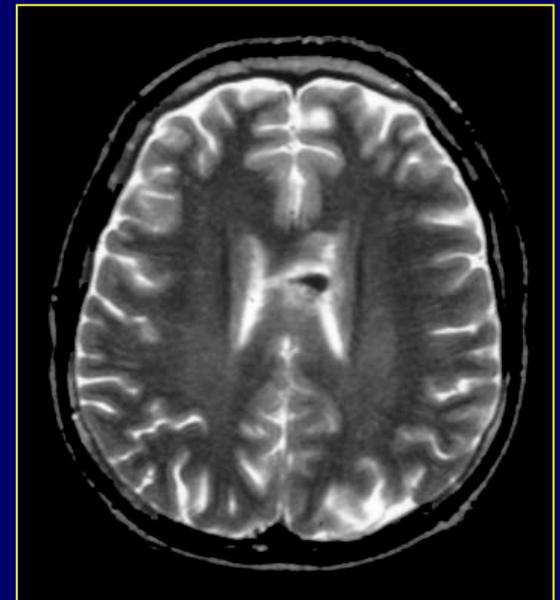
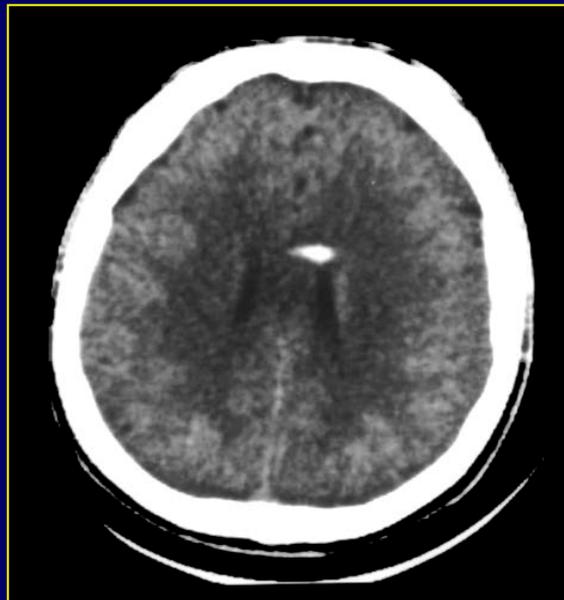
Lésions en cisaillement



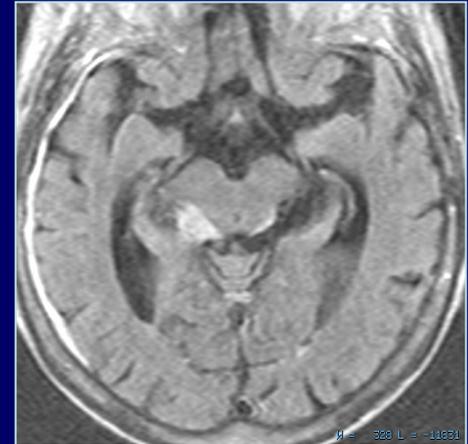
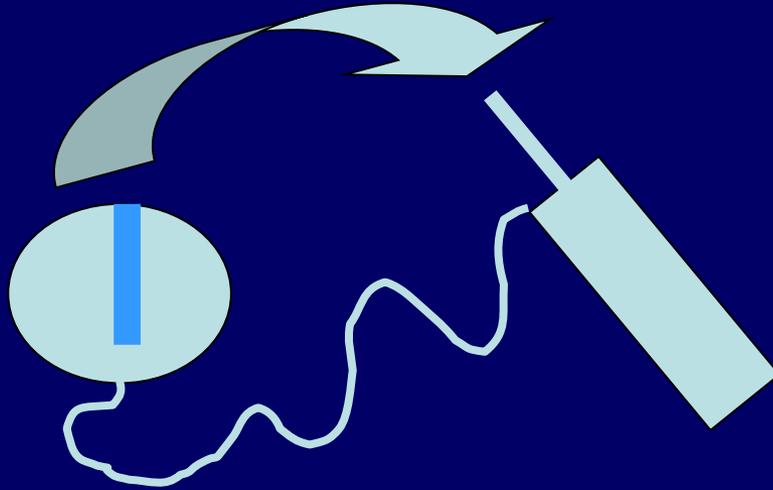
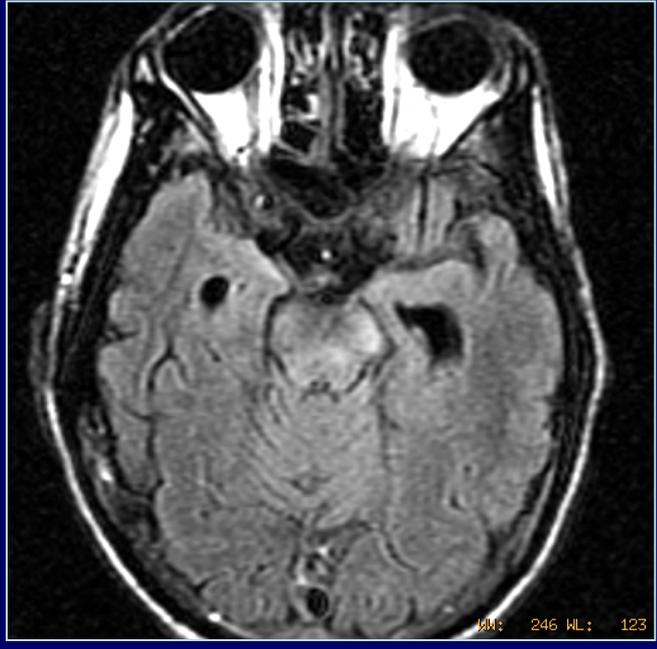
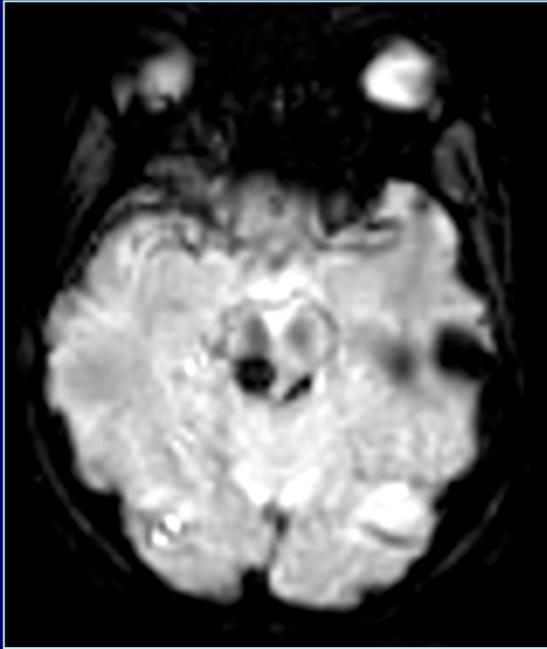
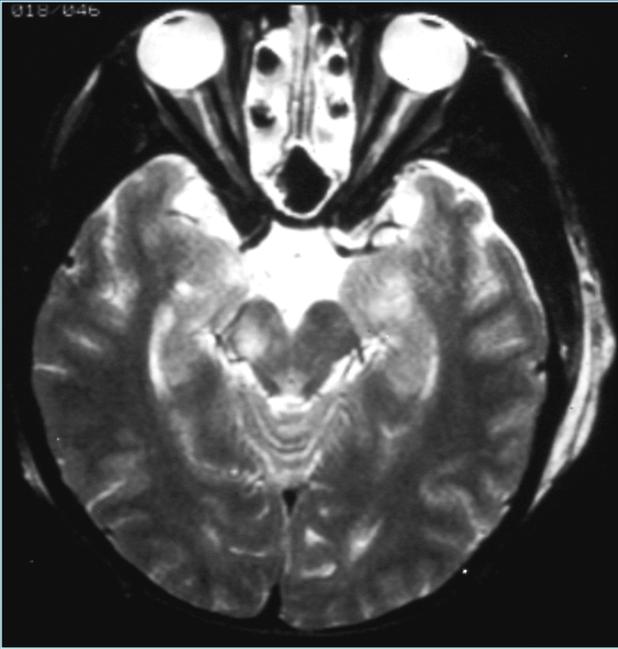
‘déchirures axonales’



'déchirure'
du corps calleux



'torsion' du mésencéphale



Trauma spinal



25 décembre

MR

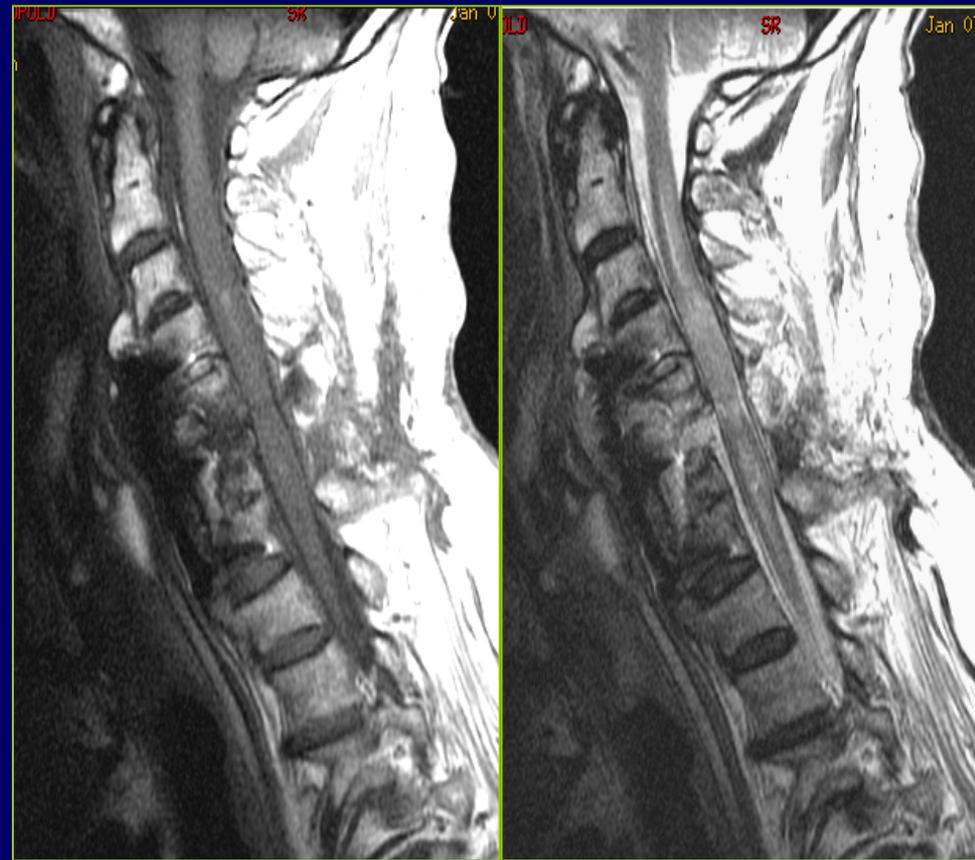
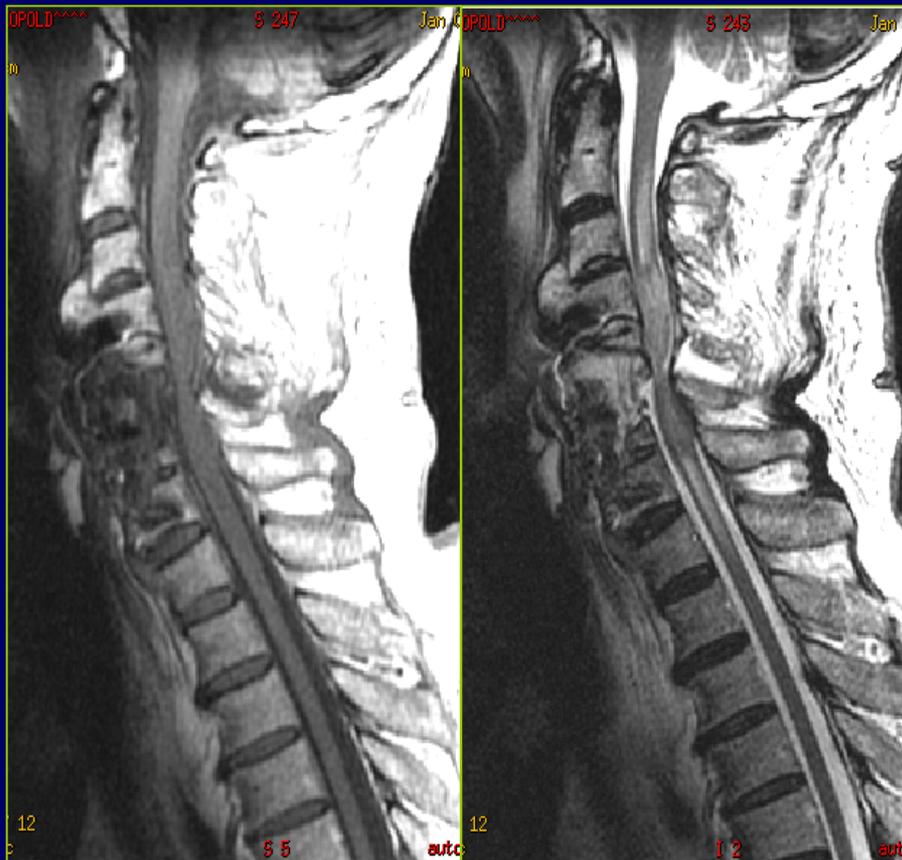
CT



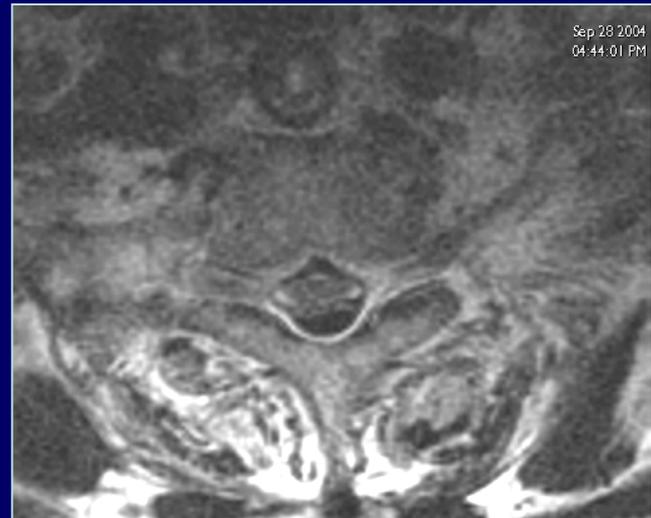
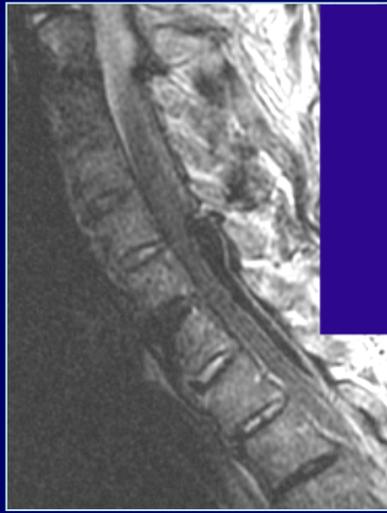
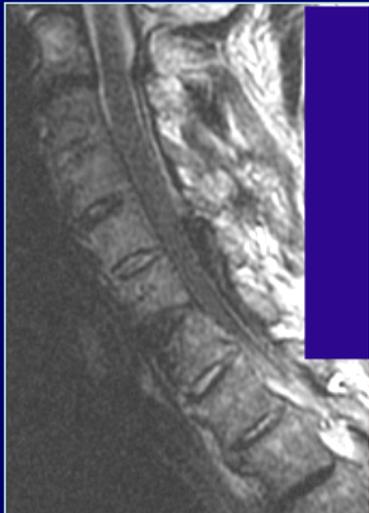
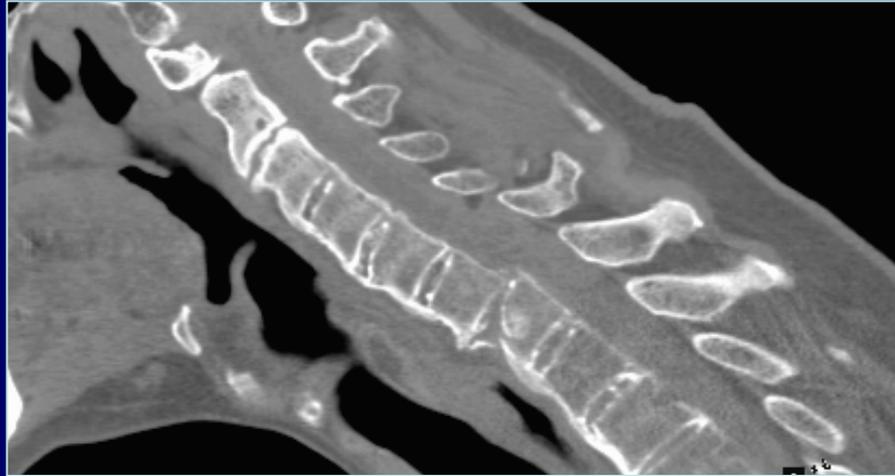


3 janvier

7 janvier



Collections hémorragiques péri-médullaires:
HEMATOME SOUS-DURAL (HSD)



Collections hémorragiques péri-médullaires:
HEMATOME EXTRA-DURAL (HED)

