

# RDGN 2120      *NEURORADIOLOGIE*

*Année académique 2020-21*

## Pathologie traumatique aiguë crânio-cérébrale et spinale



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*Chef de Clinique*

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<http://www.saintluc.be>

4<sup>ième</sup> Cours du jeudi 15 octobre 2020

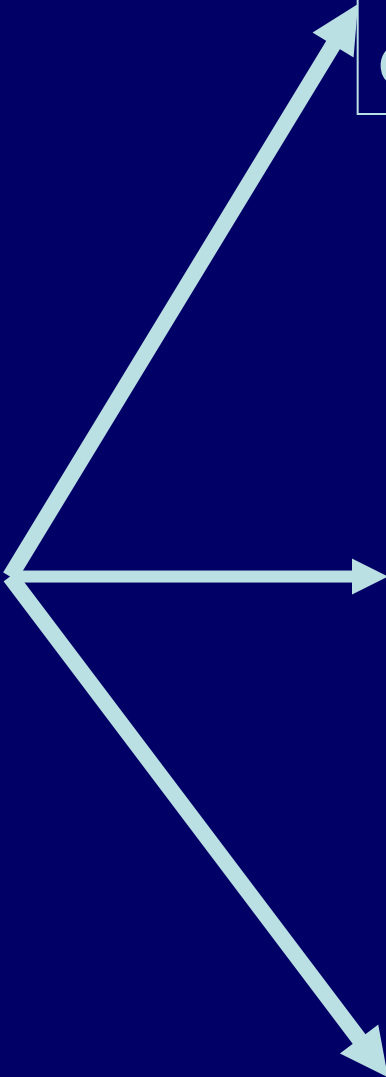
**Trauma crânien**

**lésions osseuses**



collections  
péri-cérébrales  
ou intra-ventriculaires

**lésions parenchymateuses**

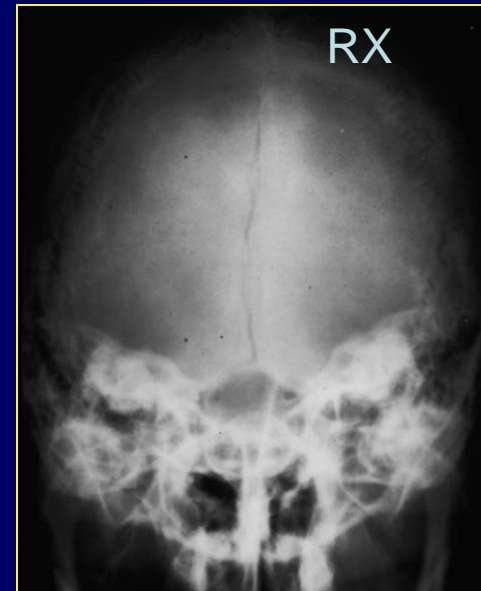
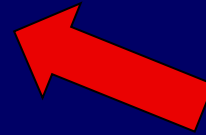


AR 27.02.2002

**RX crâne** remboursée dans le cadre traumatique ssi

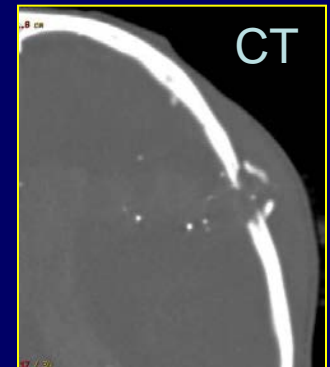
\* trauma facial majeur

\* 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

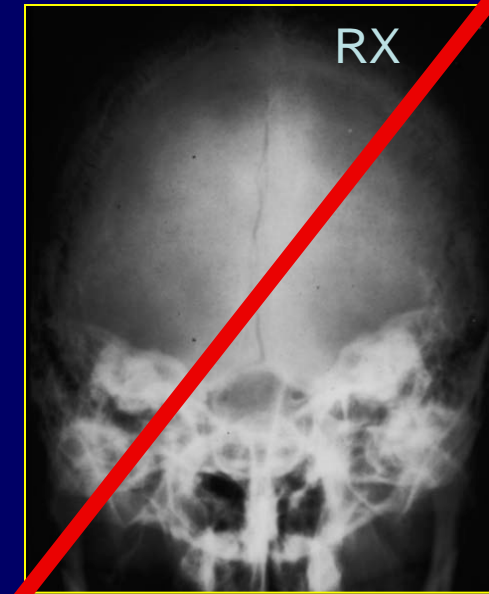
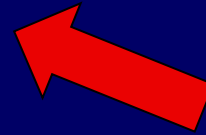


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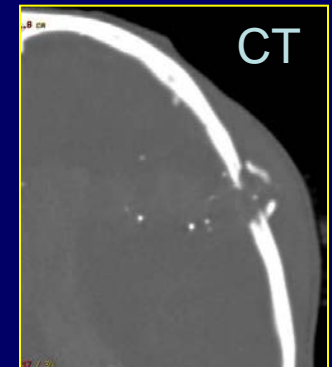
\* trauma facial majeur

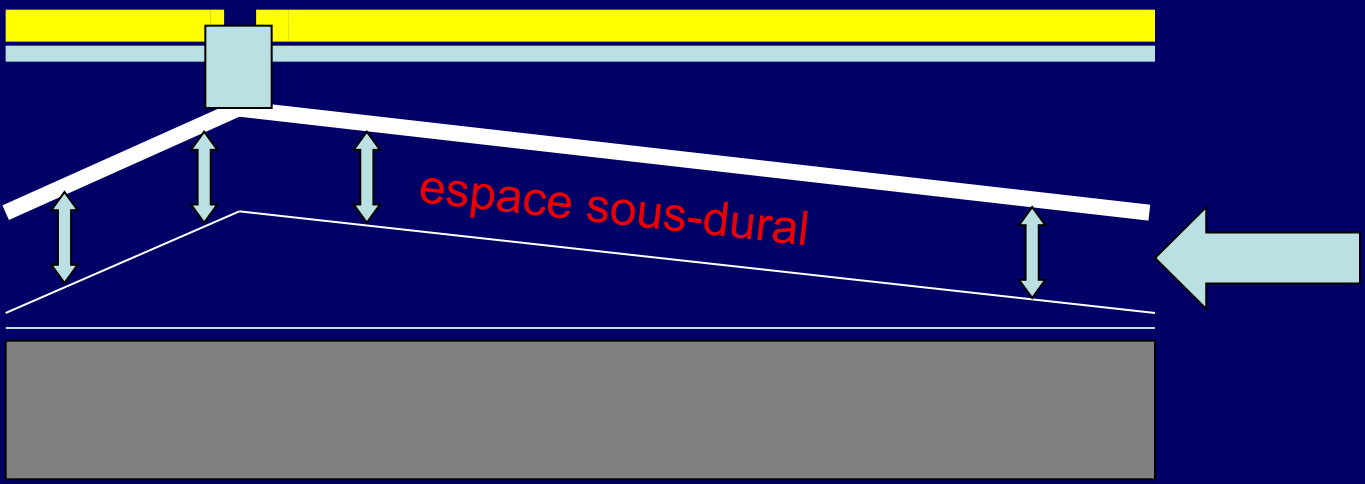
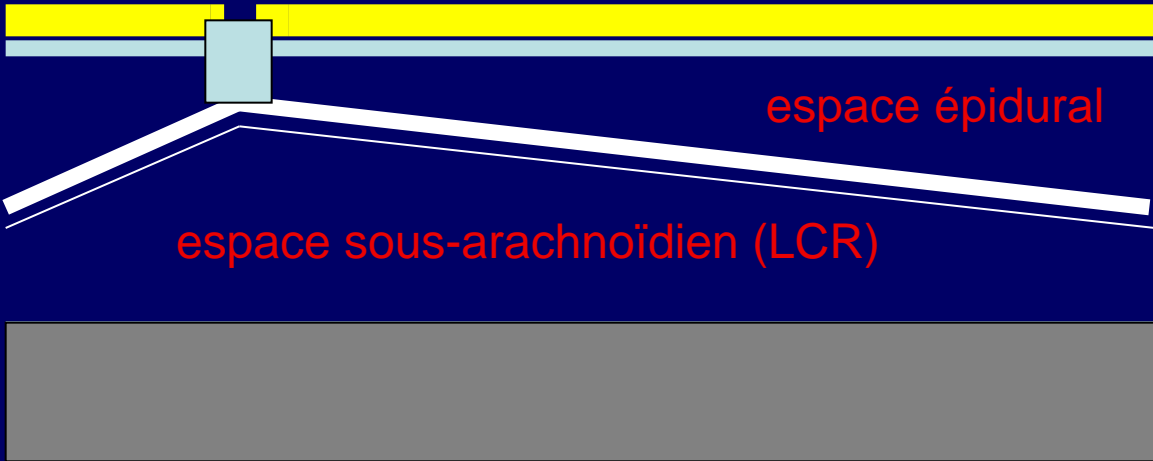
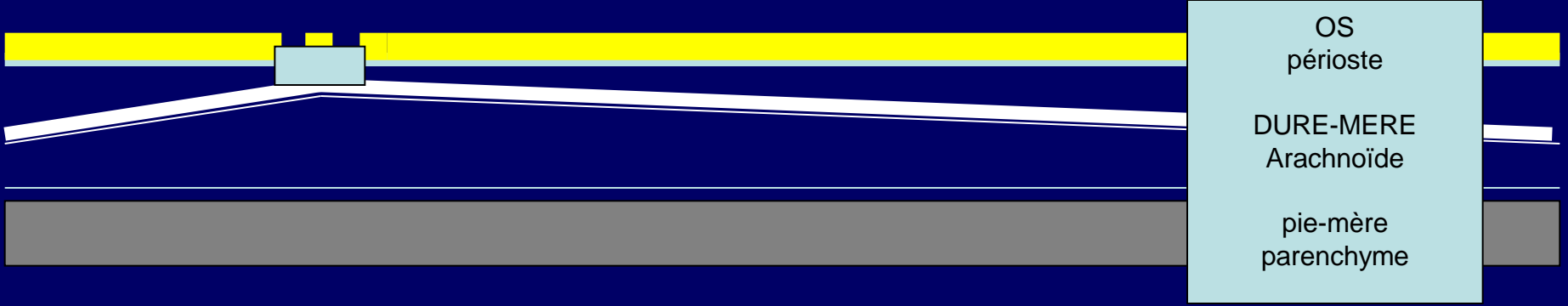
\* enfant > 5 ans

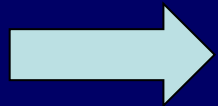


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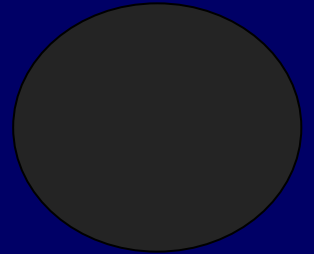
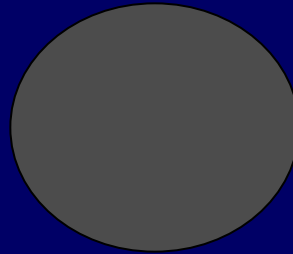
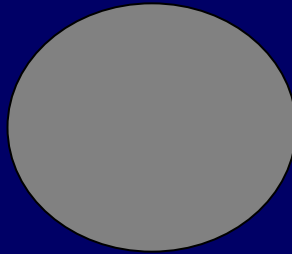
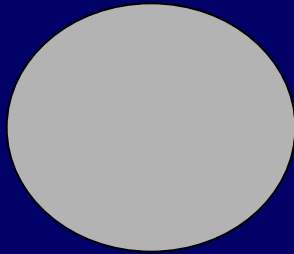
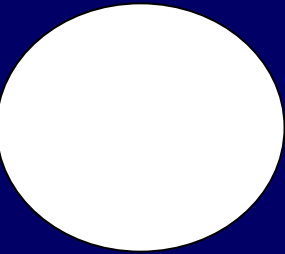
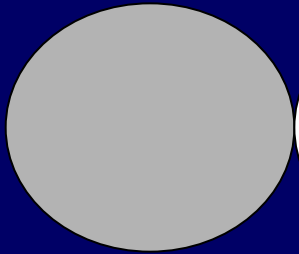
**Densité de l'hématome** (forme collectée, non "washed out" par le flux de LCR)

H0

H6

J5

J30



60

90

60

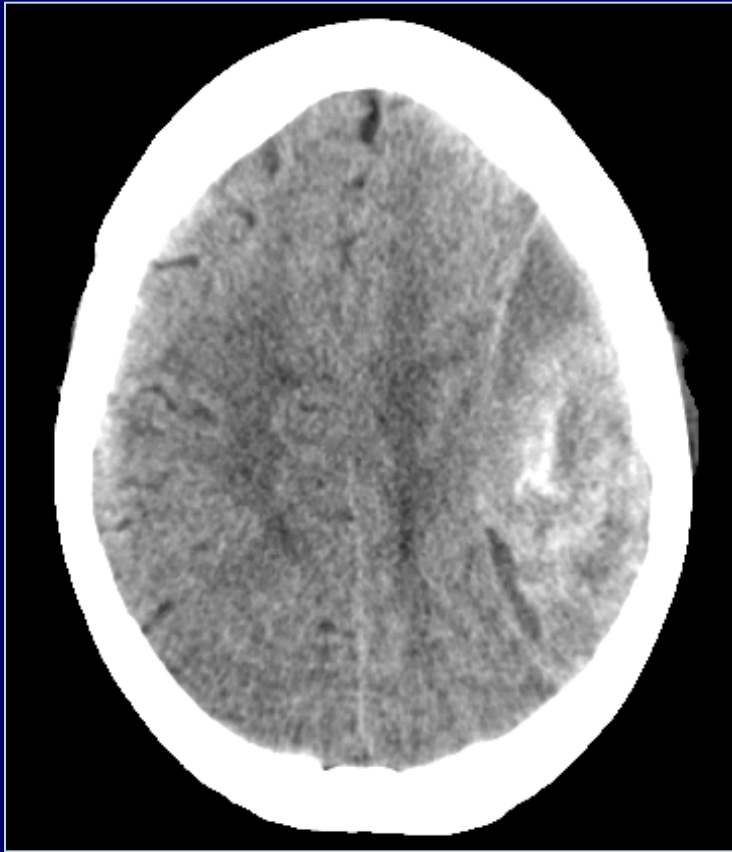
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30

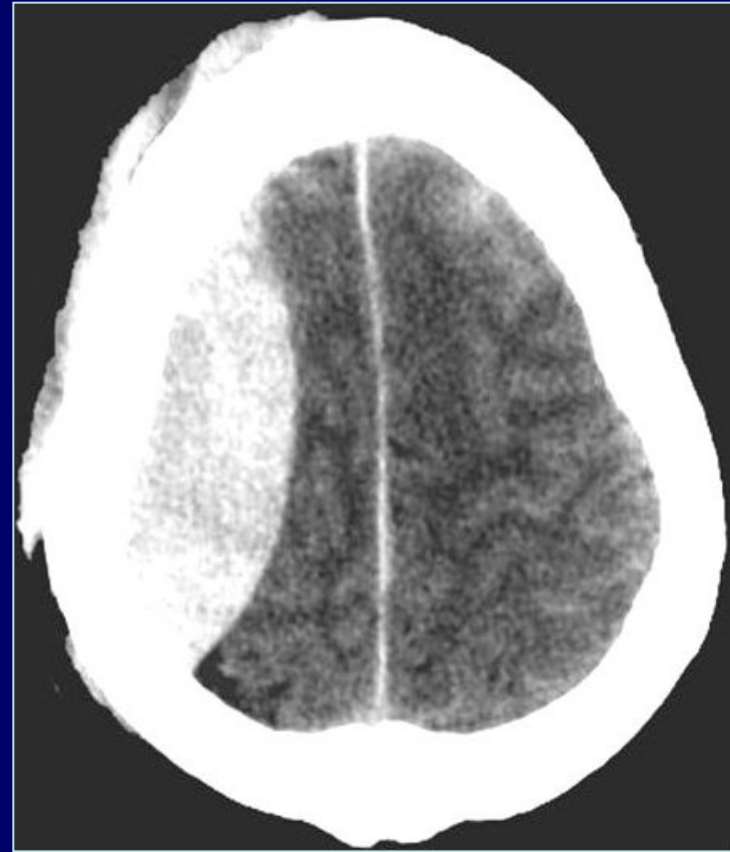
20

# Hématome Extra-Dural (HED)

hyperaigu



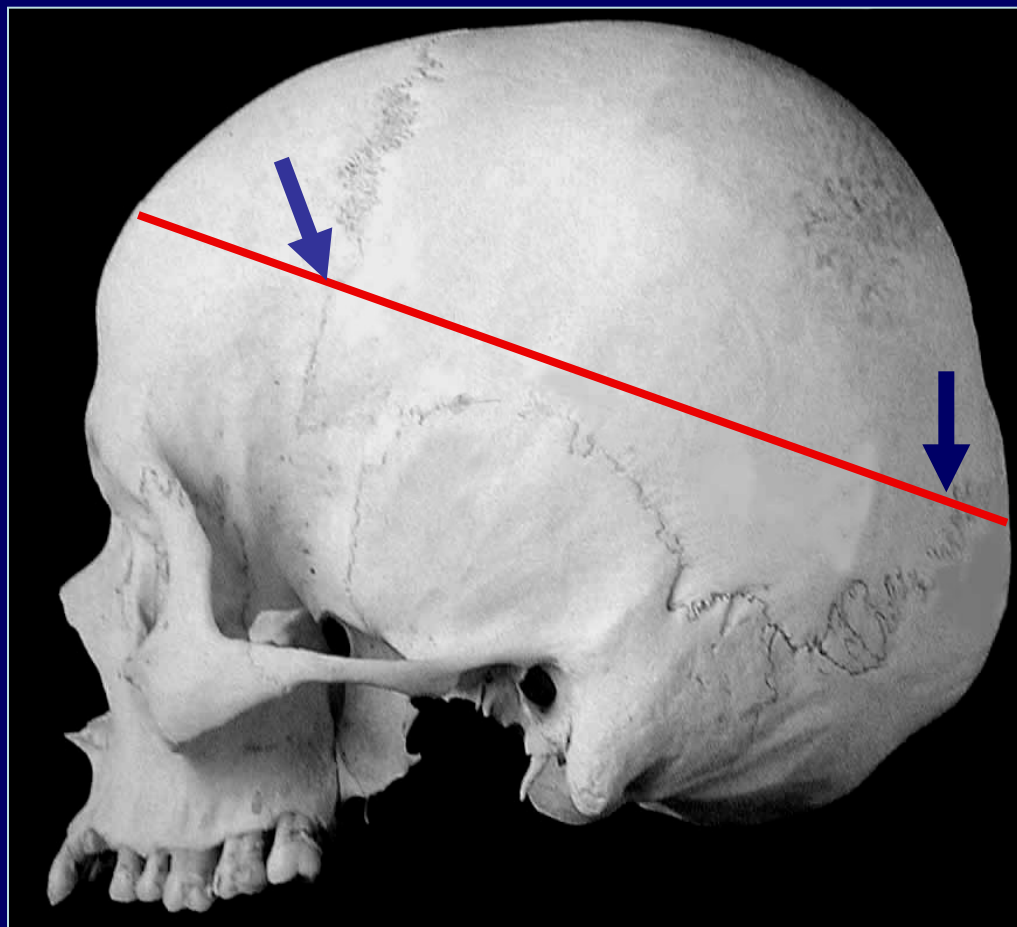
aigu



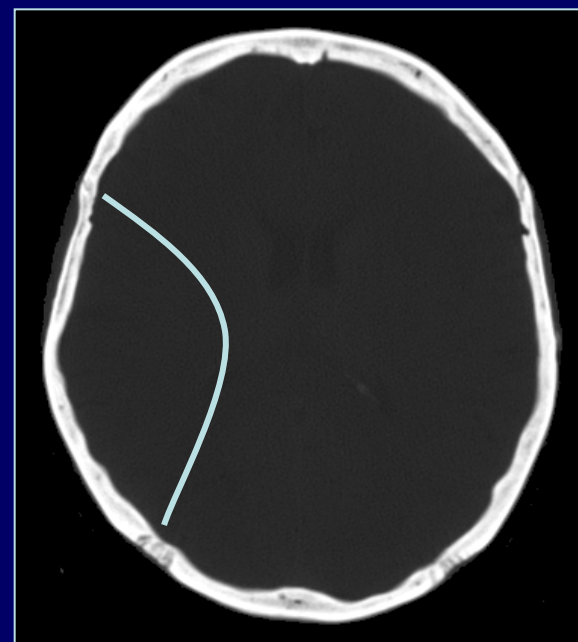
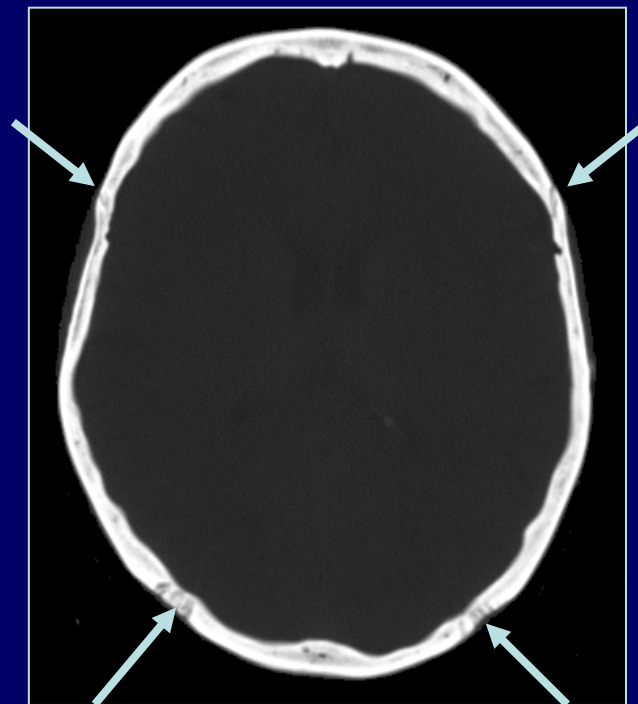
**Saignement artériel → débit & pression → hétérogène**

en phase aiguë

**Arrêt par les sutures**

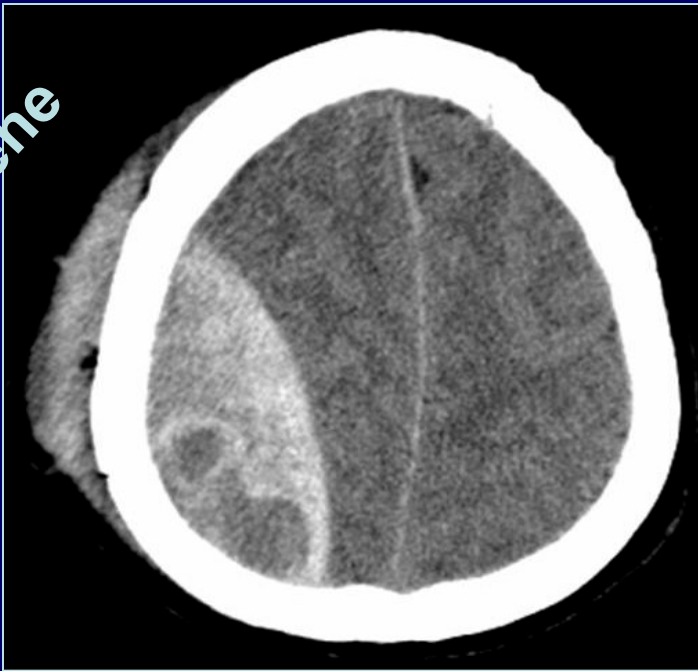


**→ lentille bi-convexe**



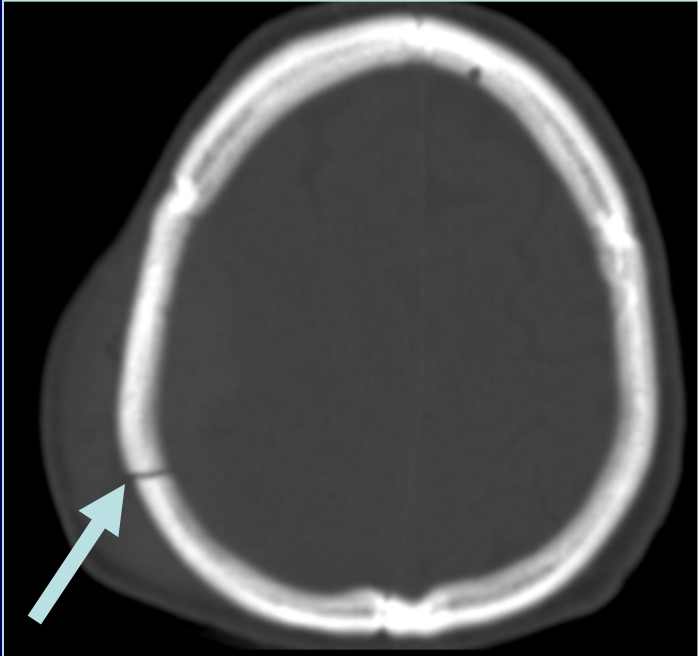


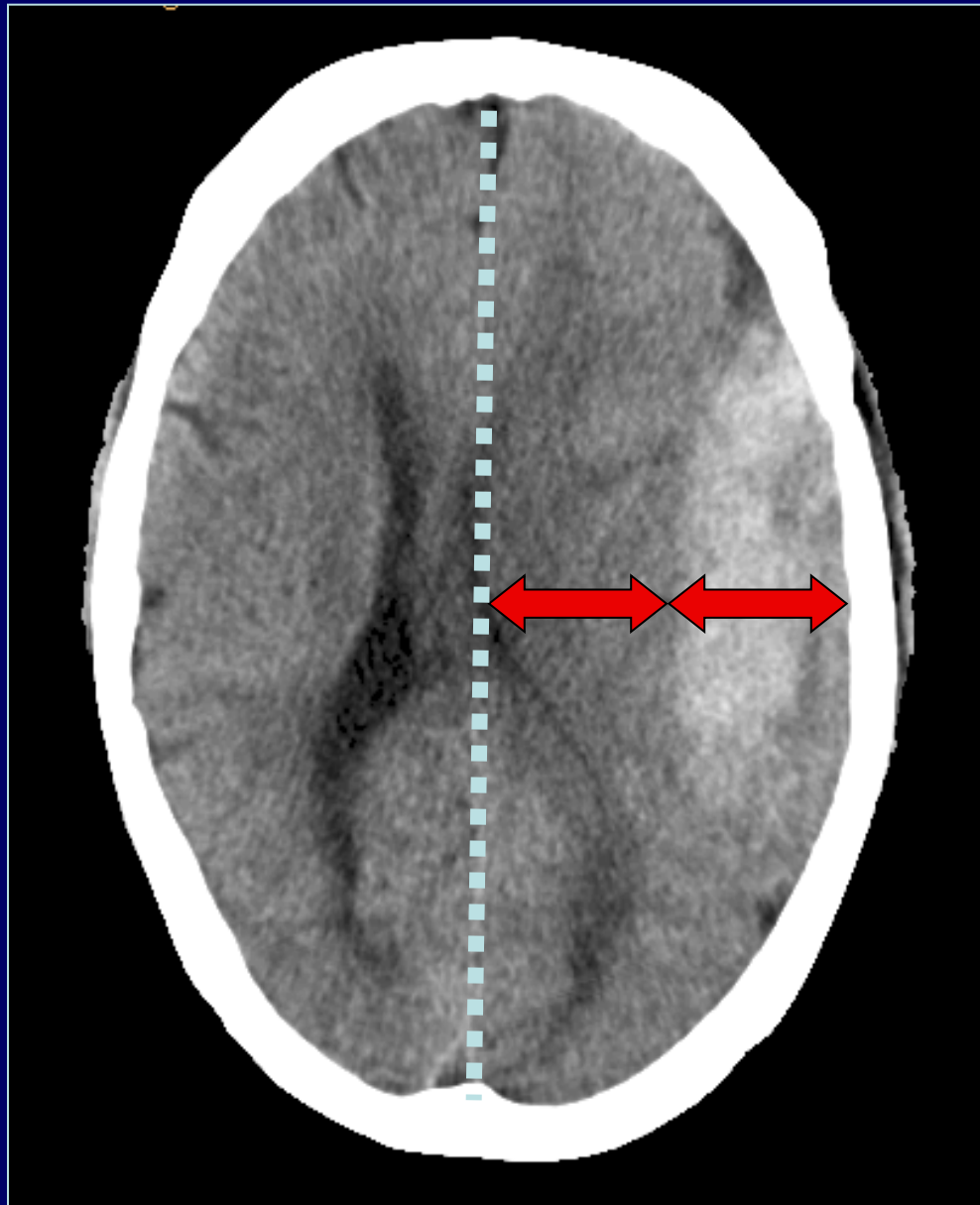
**hétérogène**



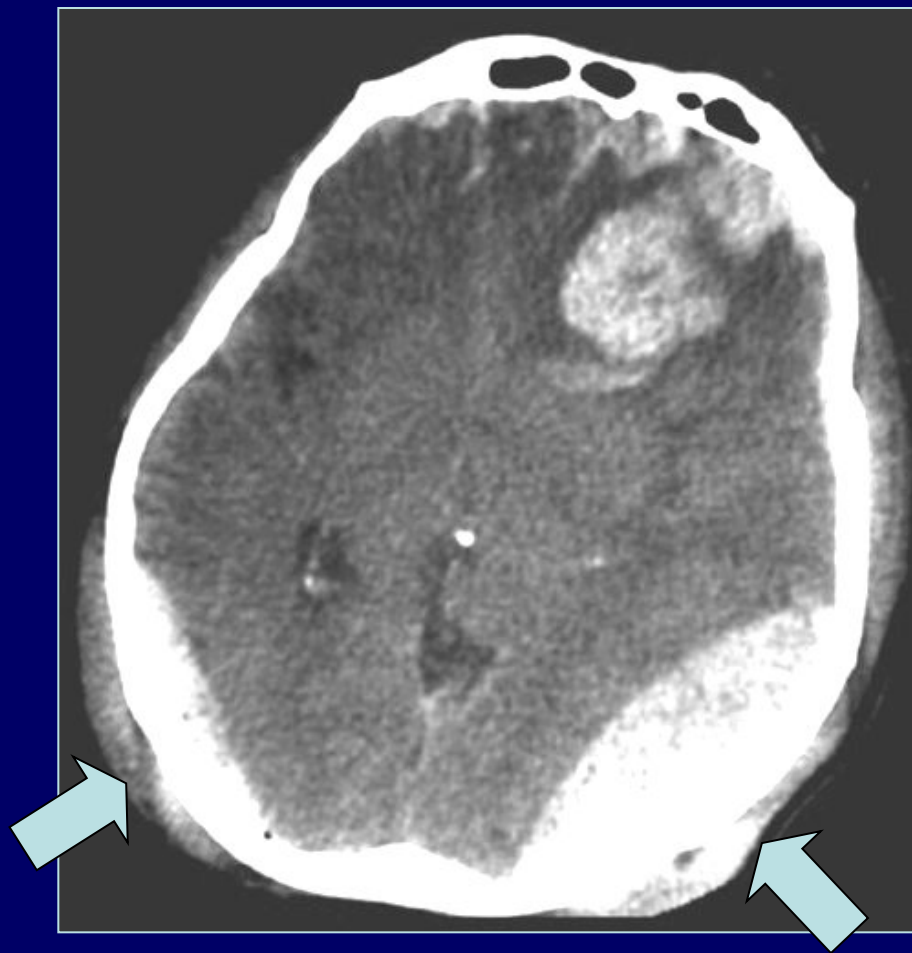
**bulles d'air**

**fracture**





Effet de masse '*proportionnel*'

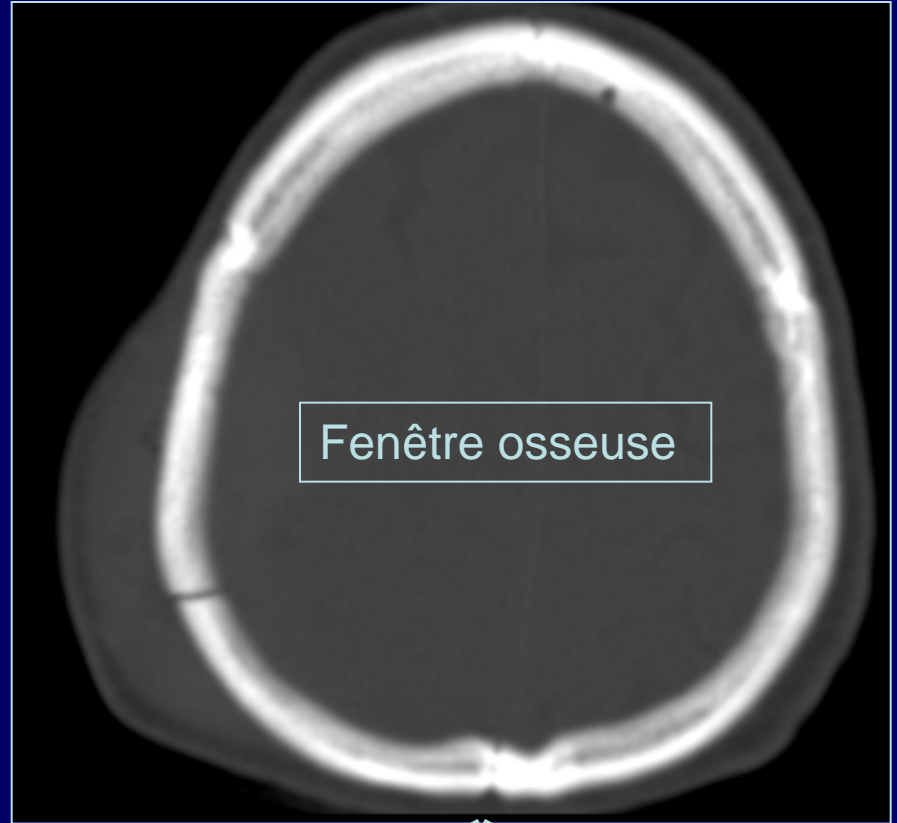
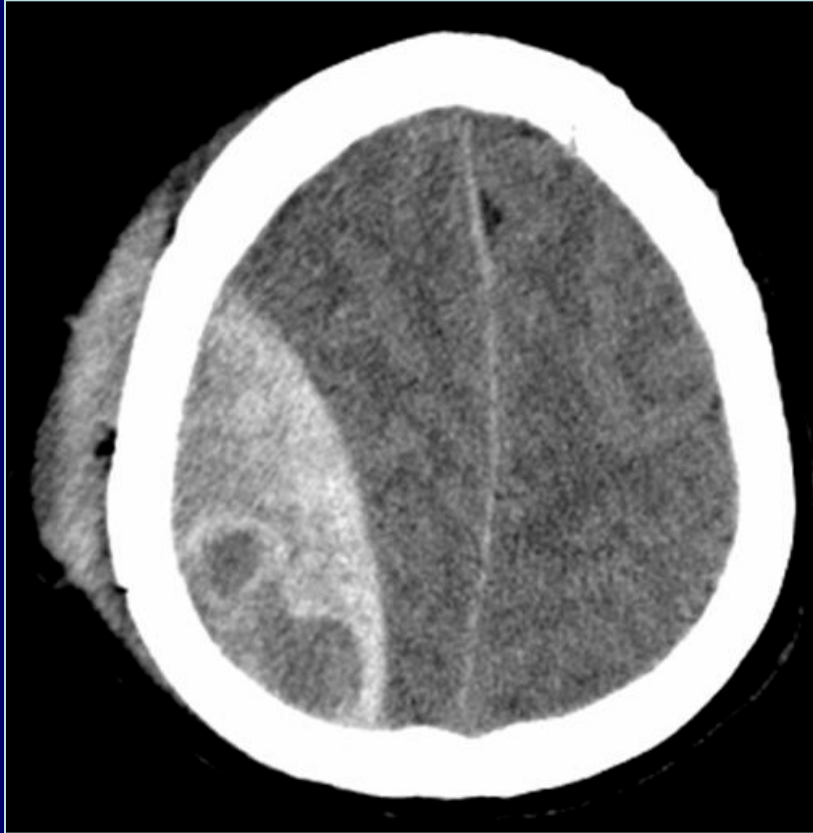


**Peu fréquemment bilatéral**



**Isolé dans 1 à 2 cas sur 3**

# Tuyau $\infty_{++}$



#

bulles

sutures

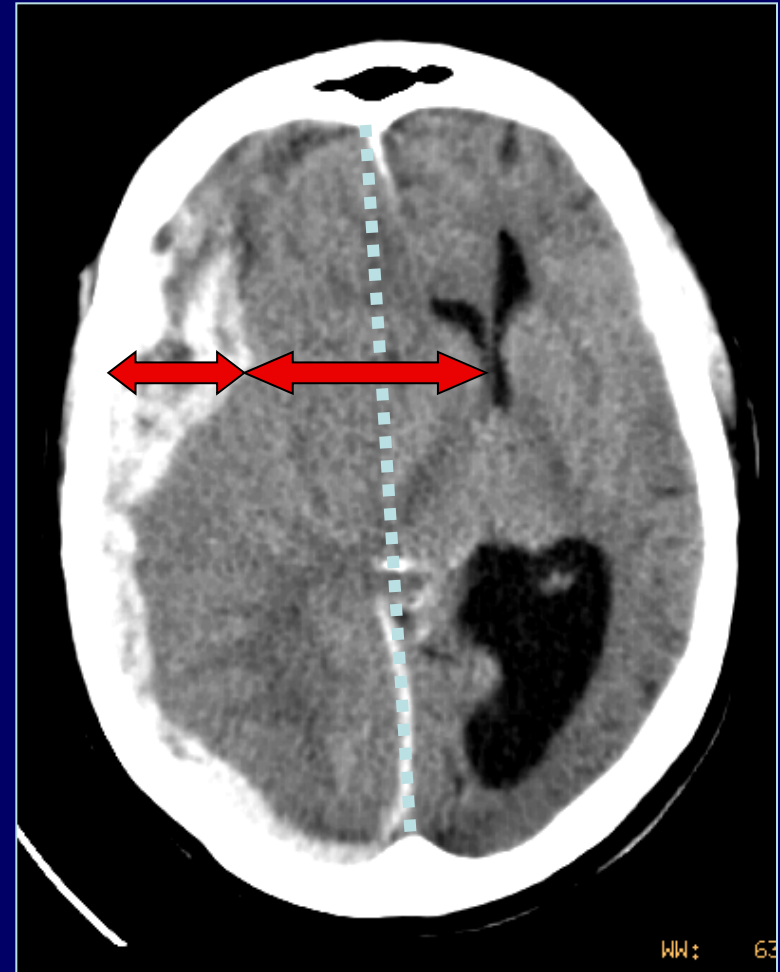
# Traitement chirurgical...



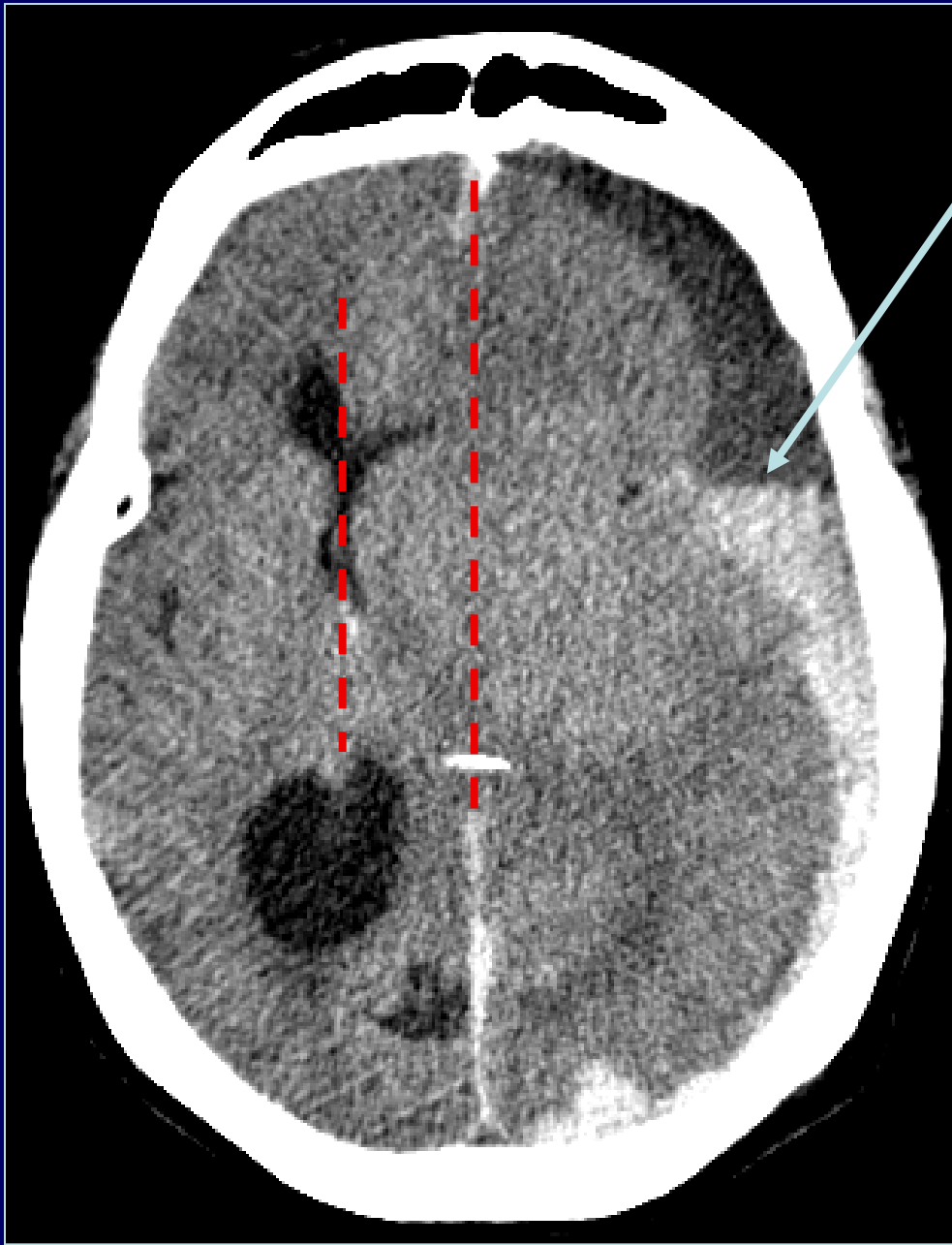
# Hématome Sous-Dural (HSD)



**coup – contre-coup  
lésions associées**



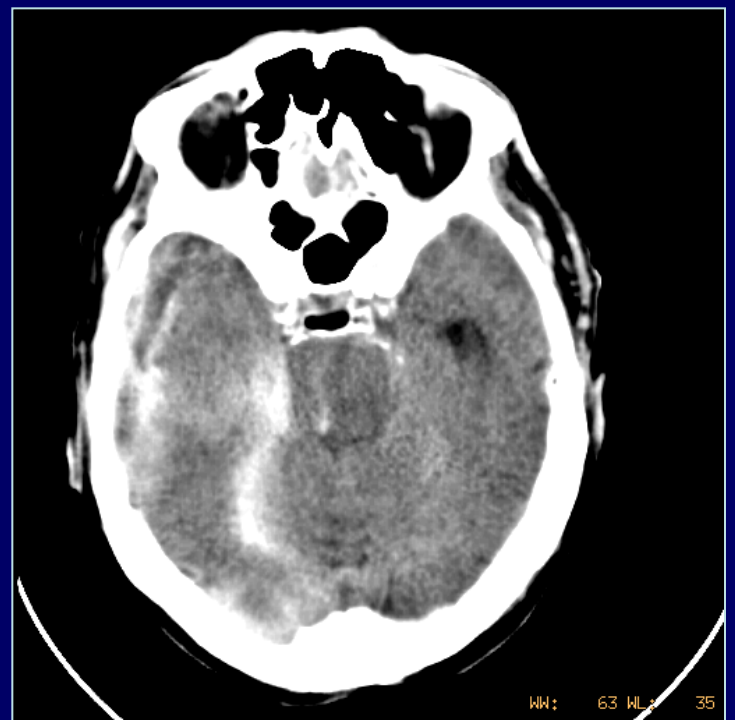
**effet de masse  
"hors proportion"**



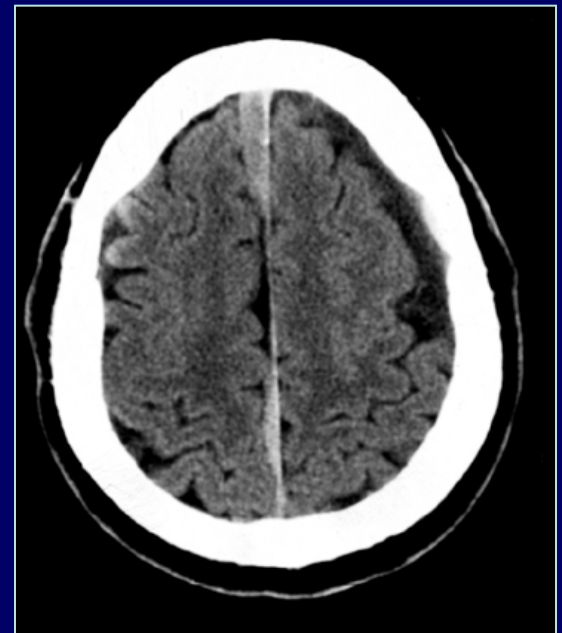
Veineux  
Saignements à répétition

Effet de masse  
→ *engagement*

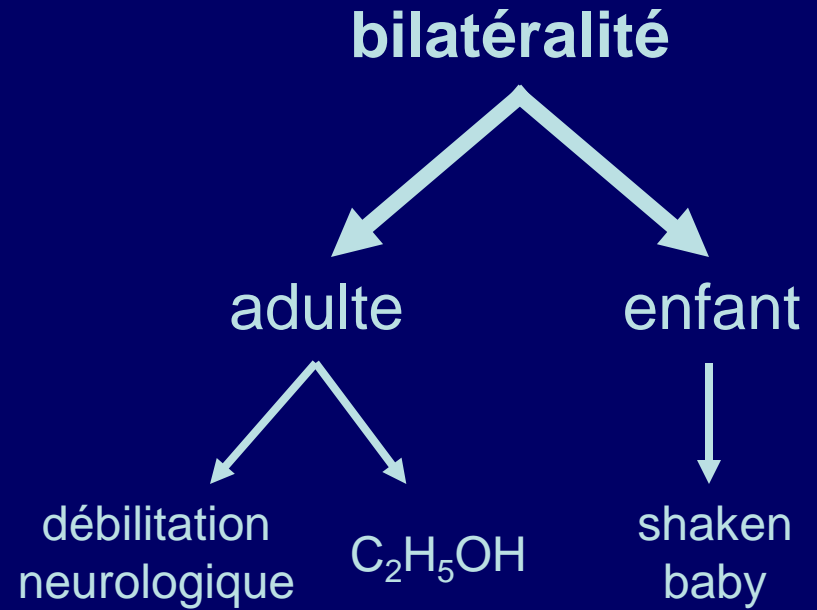
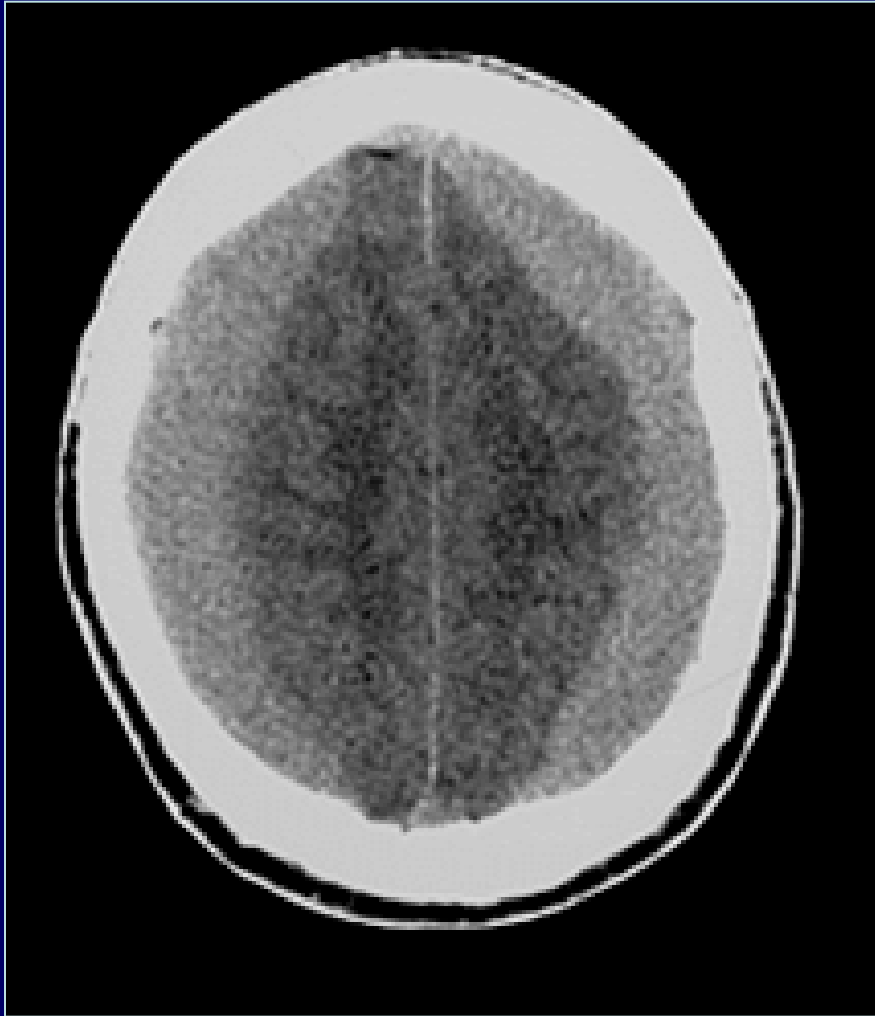
**lésions  
associées**



**Suit les replis duraux**



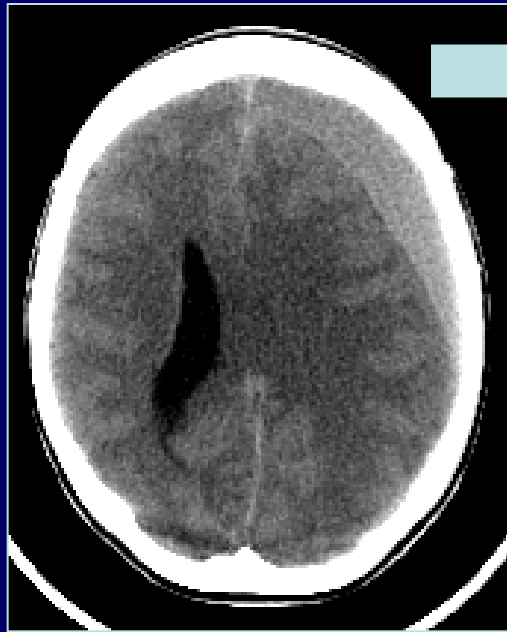




**Bilatéralité**  
→  
**réduction de l'effet de masse**

**'durabilité'...**

*... évolution dans le temps*



hyper



iso



hypo

# Piège 1: cloisonnement



Faux HED...

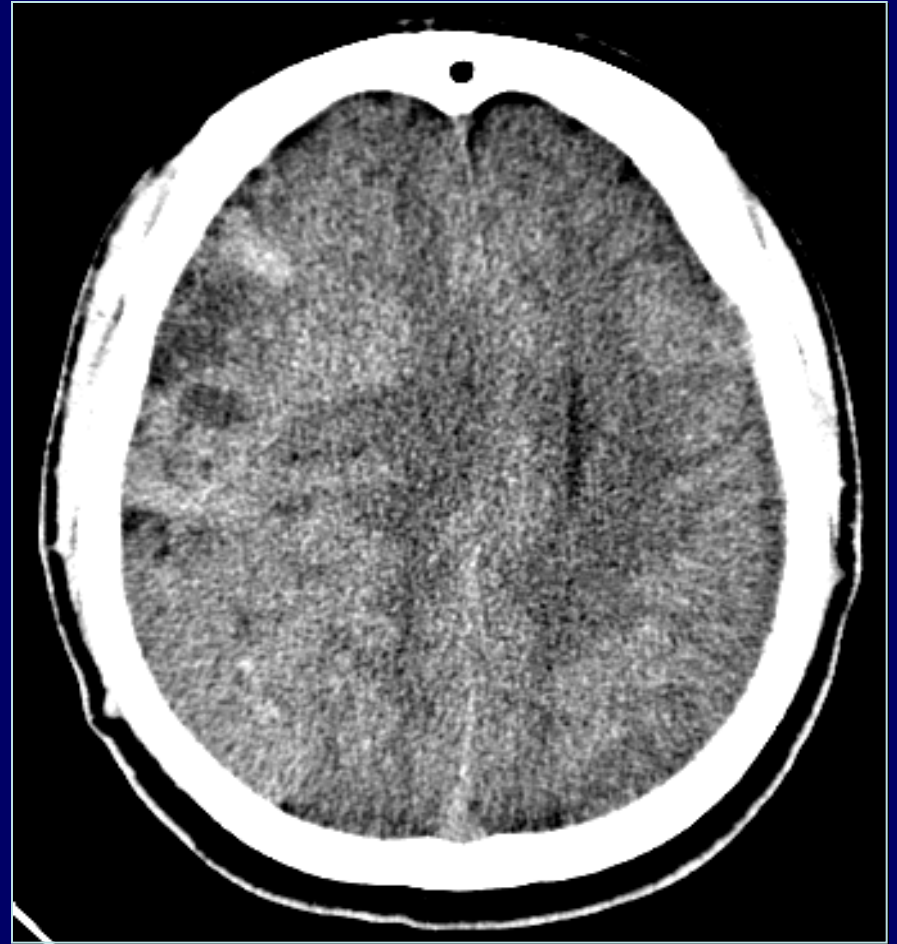


... vrai HSD

## Piège 2: isodensité

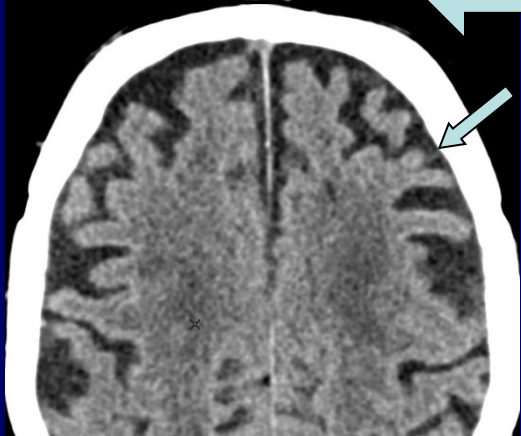


Effet de masse 'sans masse'...

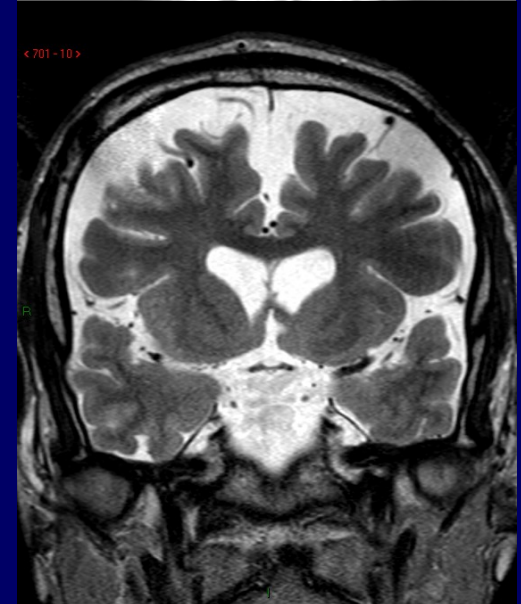
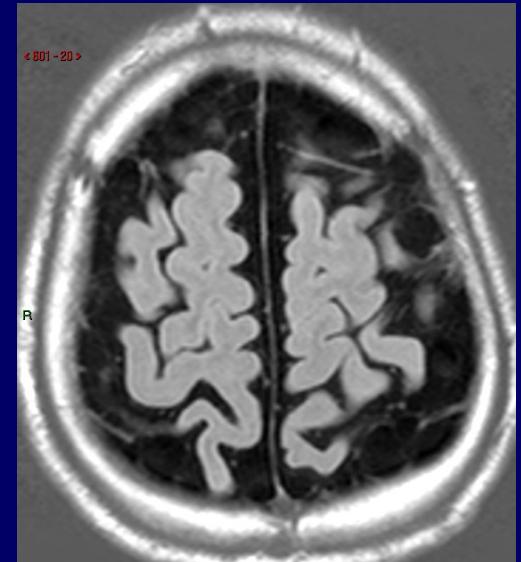
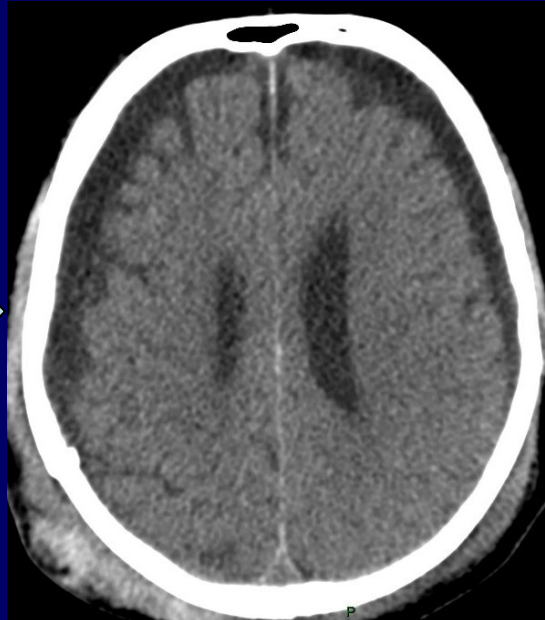
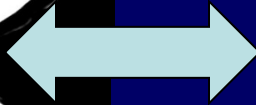


... mais avec collection péri-cérébrale

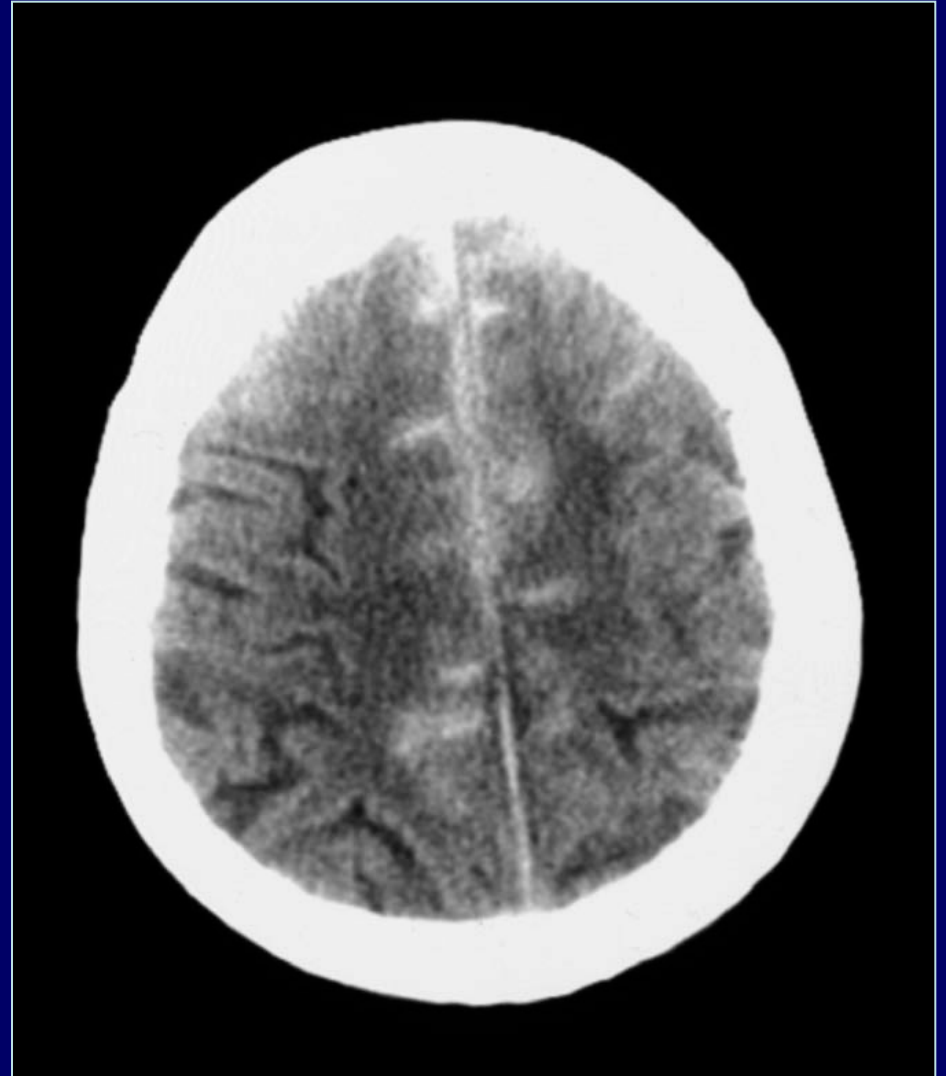
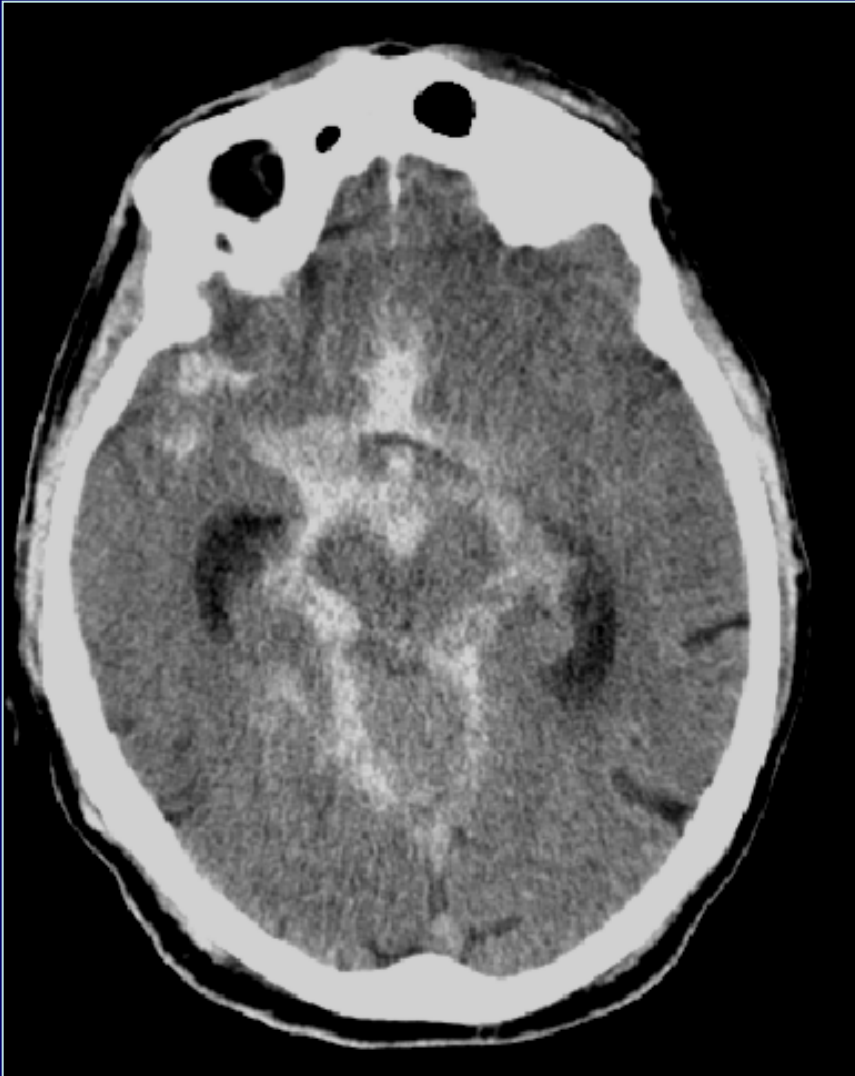
# Piège 3: 'décollement' A VACUO

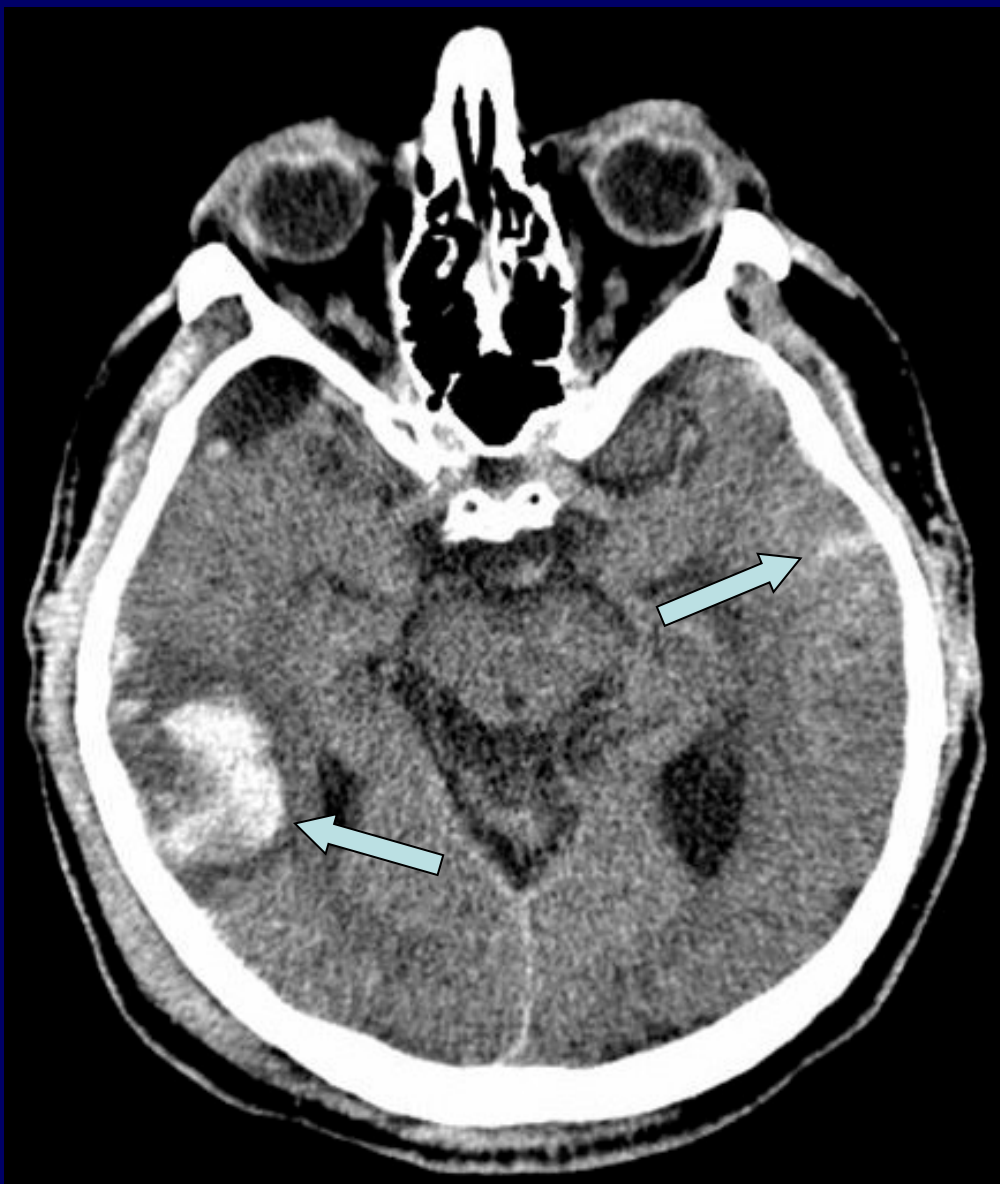


veines-pont



# Hémorragie Sous-Arachnoïdienne (HSA)



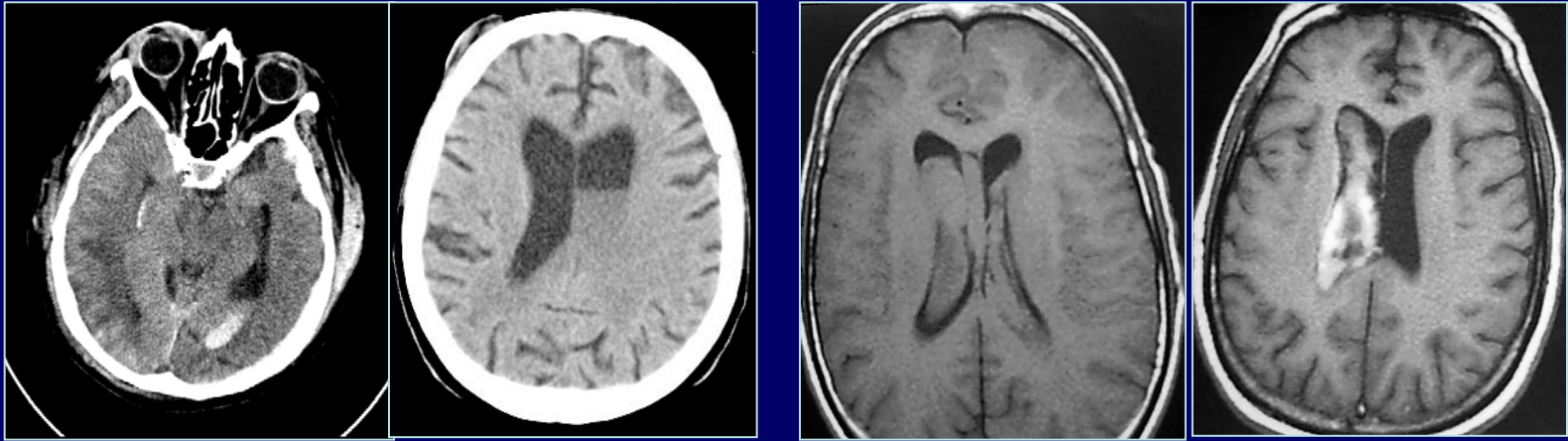


**associations  
lésionnelles  
fréquentes**



*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' ?

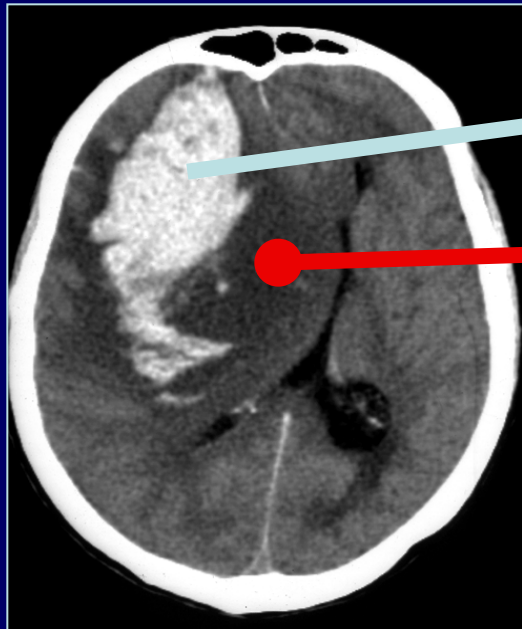
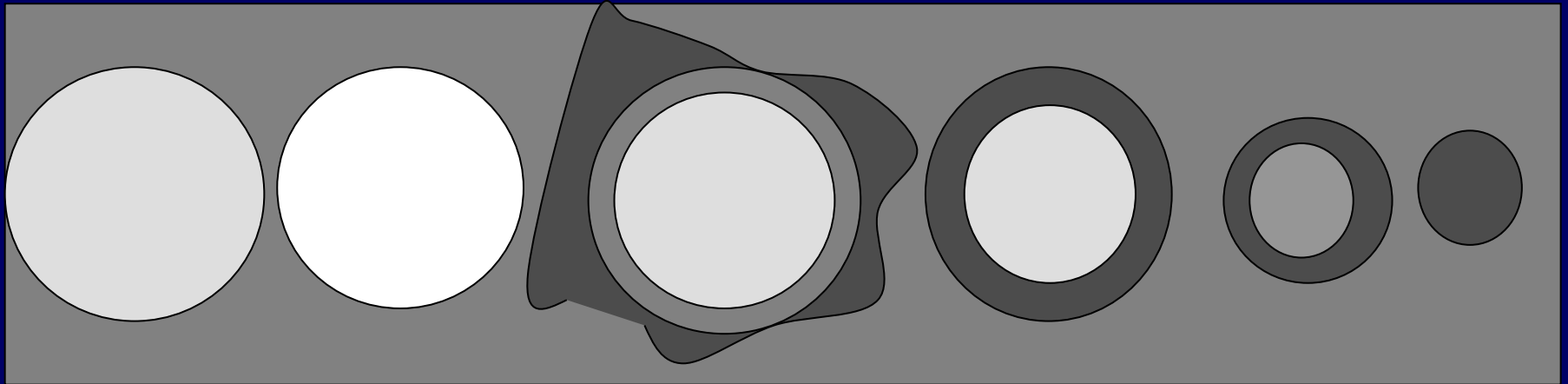


↓ résorption LCS ?



# Lésions parenchymateuses

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



DRAINAGE

CORTICOTHERAPIE

effet de masse

=

$\Sigma$  [Vol *hématome*] + [Vol *oedème*]

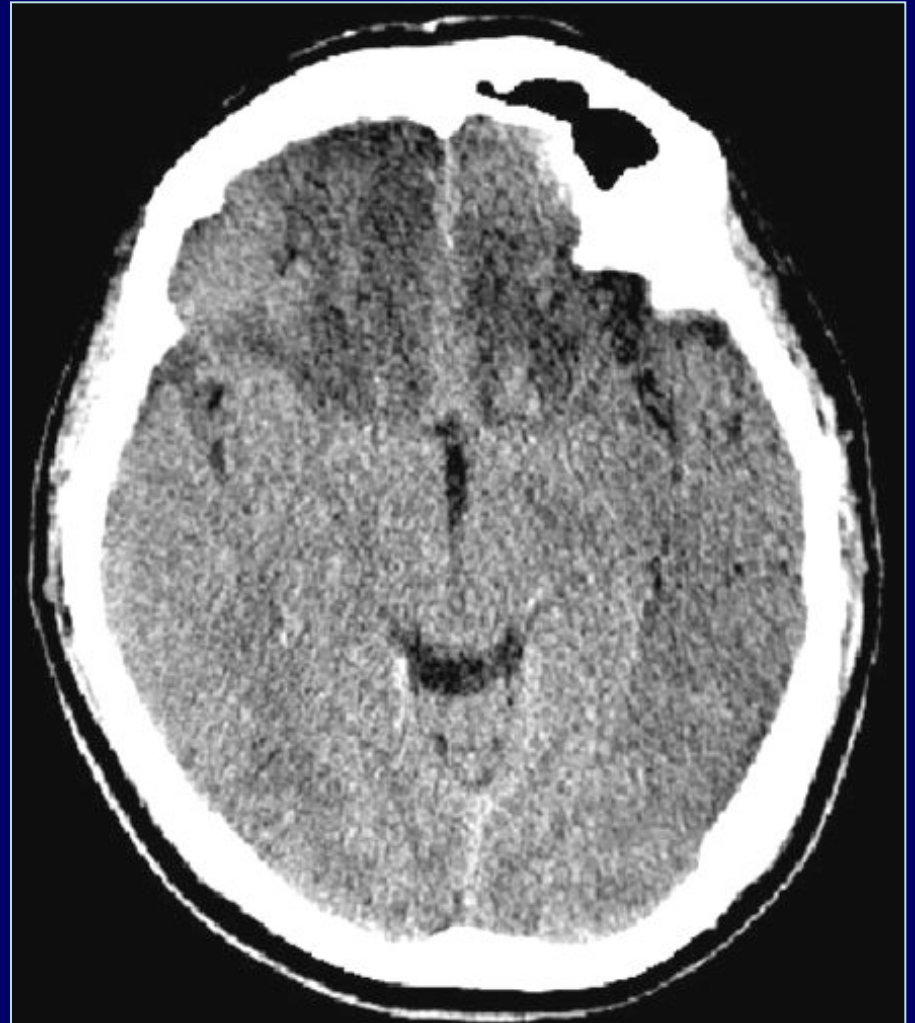
# Contusions directes



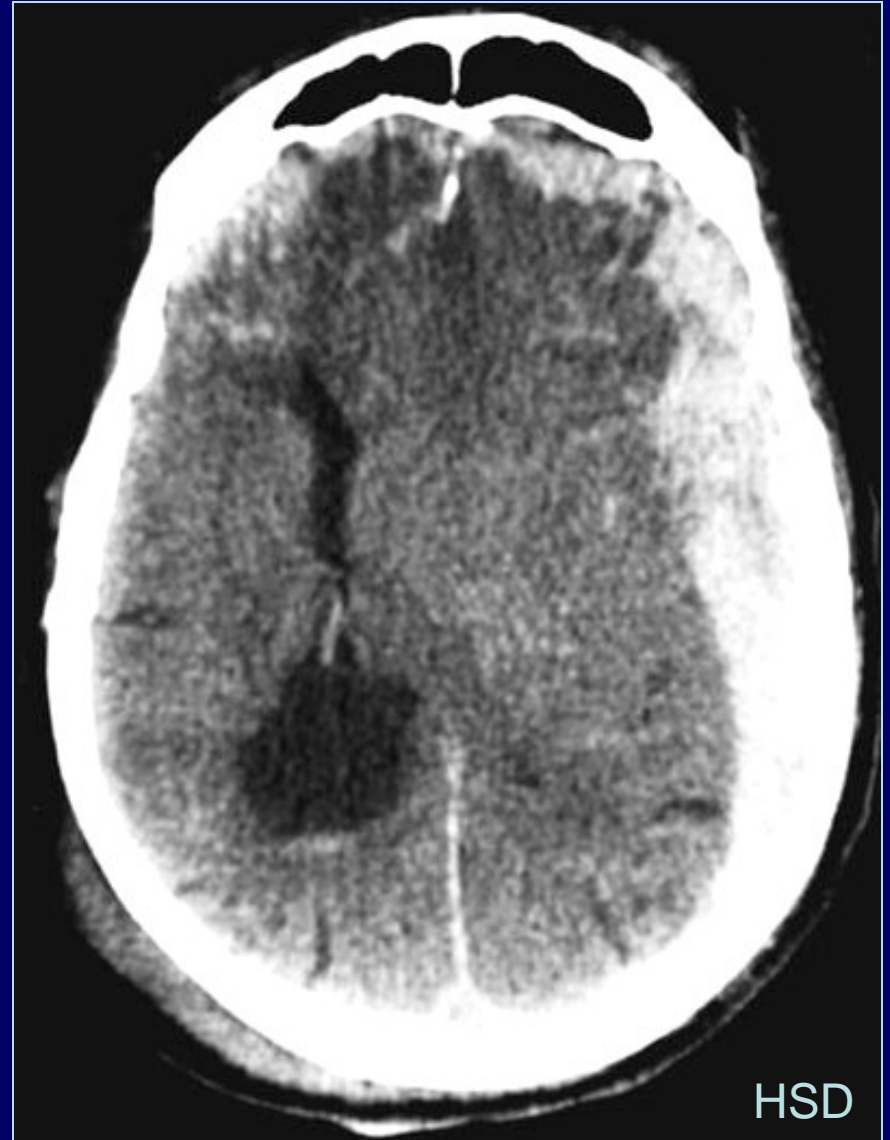
Phase aiguë...



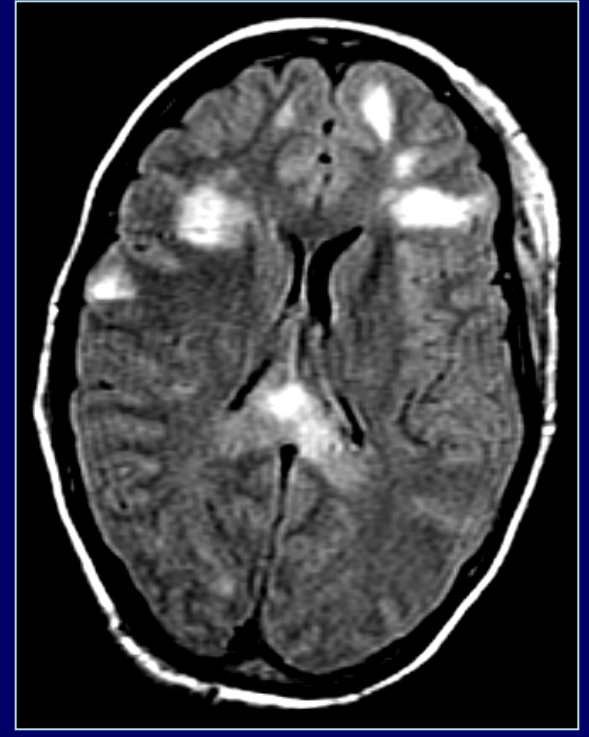
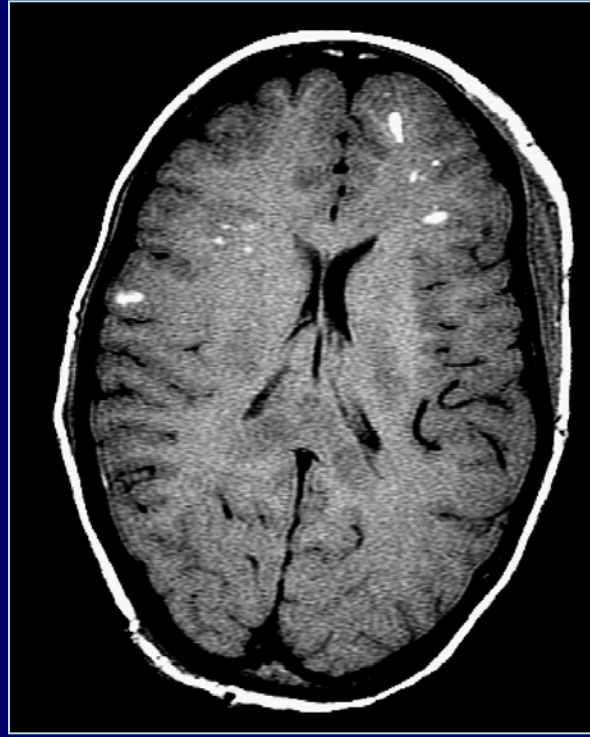
... chronique



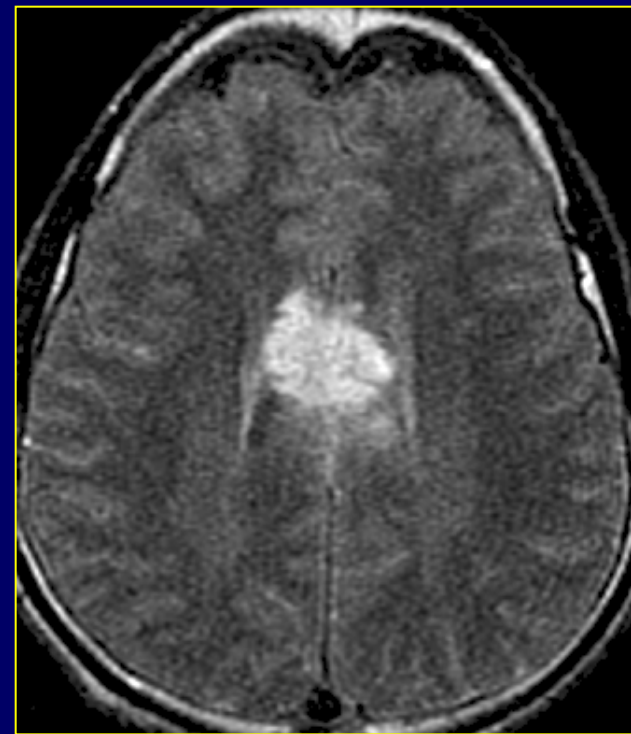
associations



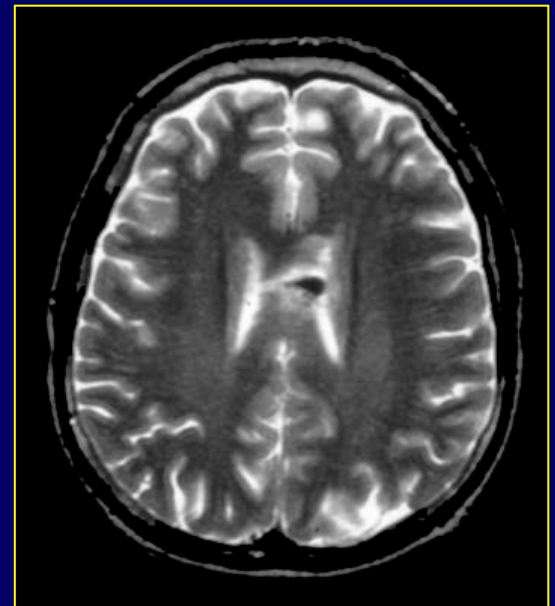
# Lésions en cisaillement



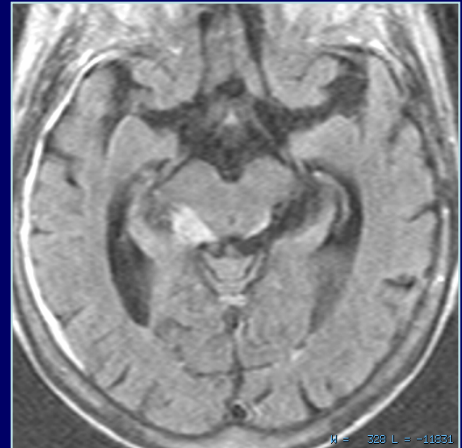
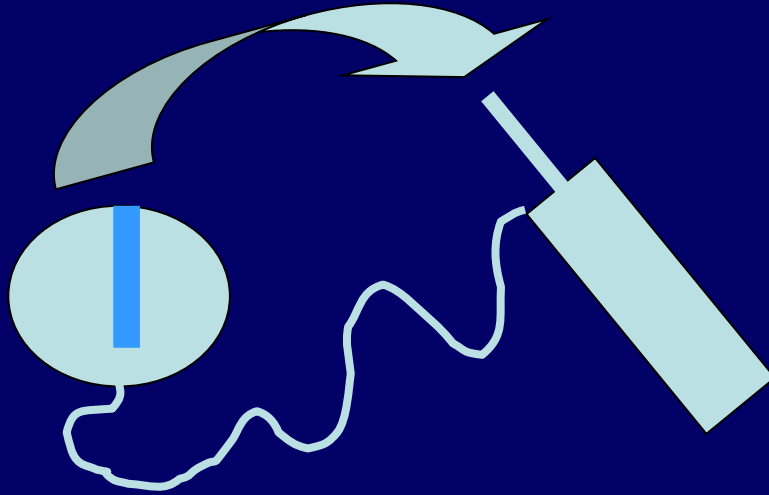
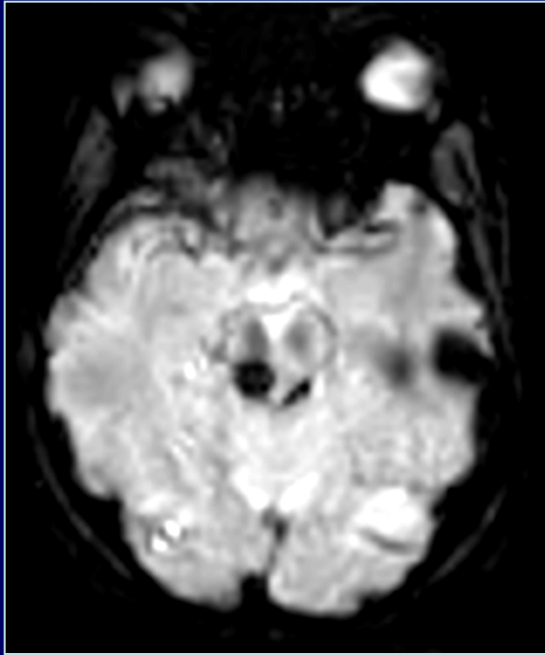
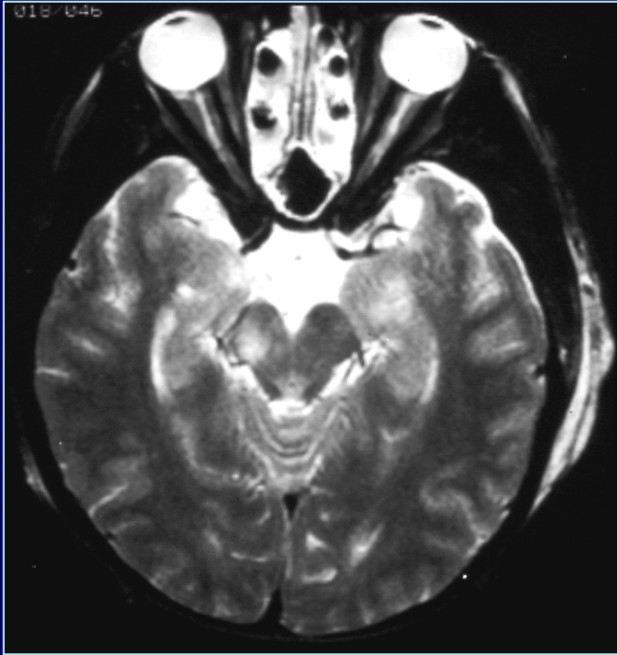
‘déchirures axonales’



'déchirure'  
du corps calleux



# 'torsion' du mésencéphale



**Trauma spinal**



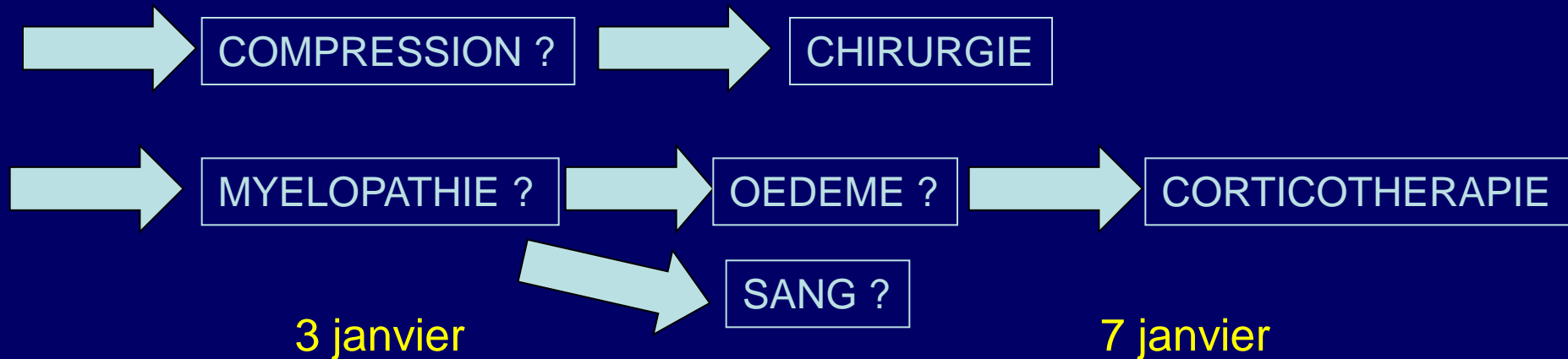
25 décembre

MR

CT

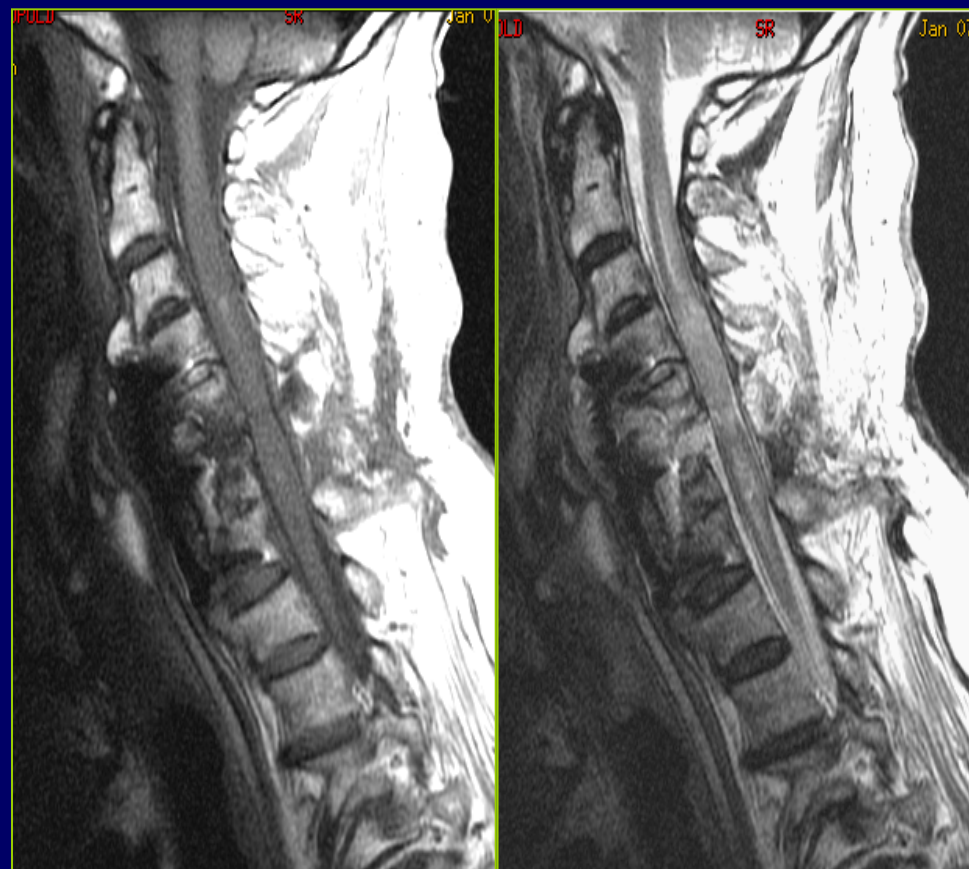
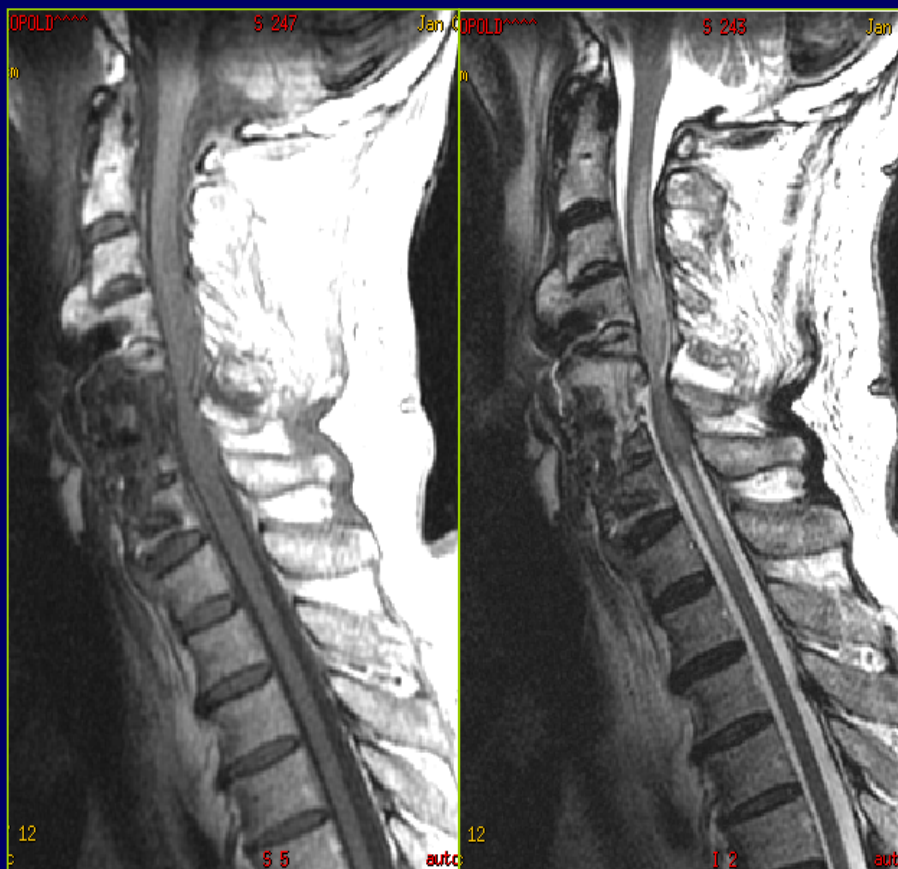




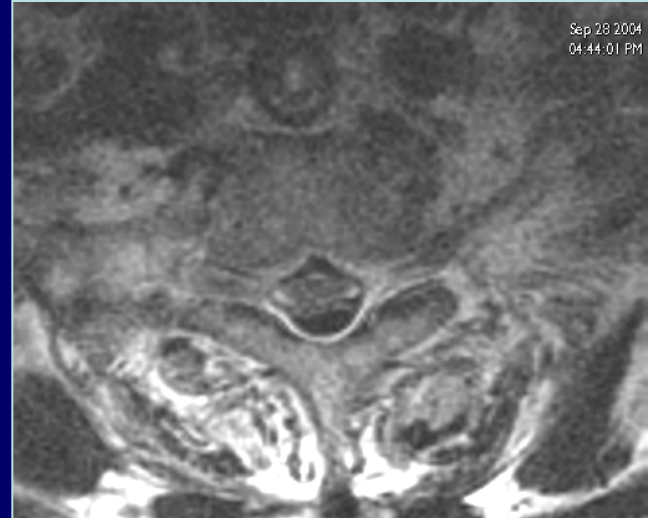
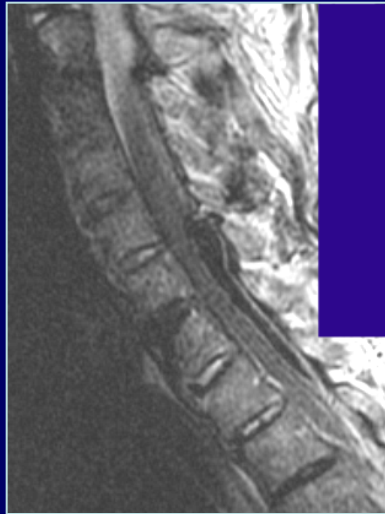
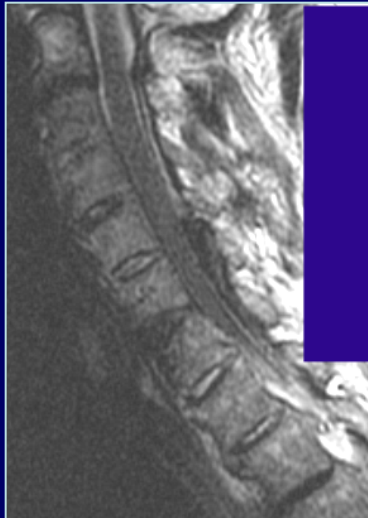
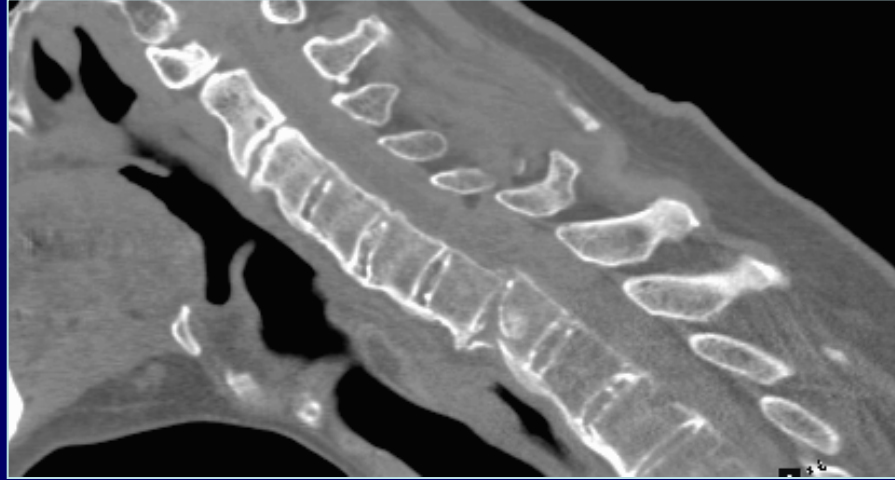


3 janvier

7 janvier



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



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

