ASSISTANCE PUBLIQUE HÔPITAUX DE PARIS

HÔPITAUX UNIVERSITAIRES
PITIÉ SALPÊTRIÈRE - CHARLES FOIX

Pseudotumeurs et pièges en imagerie tumorale

Session Thématique et Ateliers de Neuroradiologie

Delphine LECLERCQ

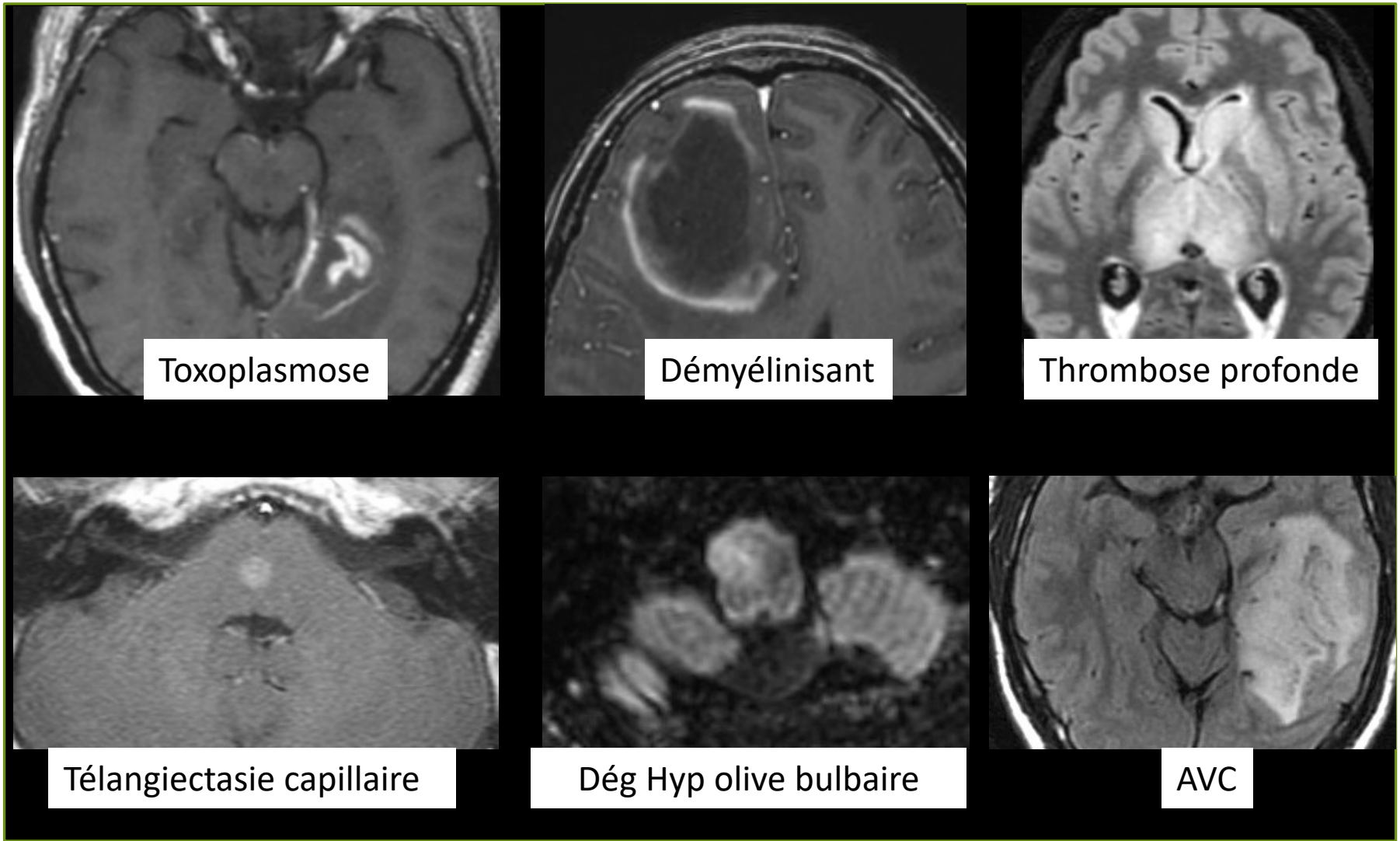
Pièges diagnostiques
Pseudo-tumeurs
Caractérisation tumorale

Dans la prise en charge = urgence

Suivi
des lésions, post-op, chimio-radiothérapie

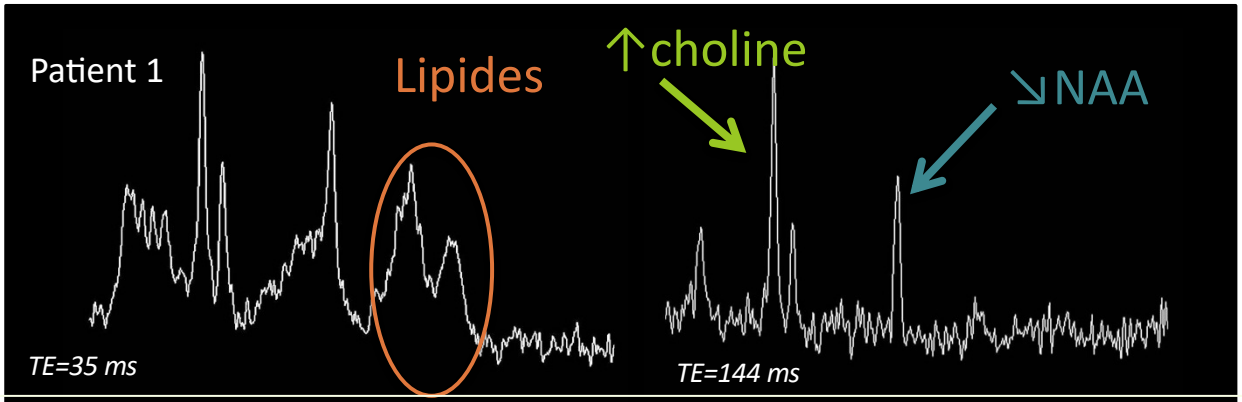
Lésions à ne pas prendre pour une tumeur

Pseudotumeurs

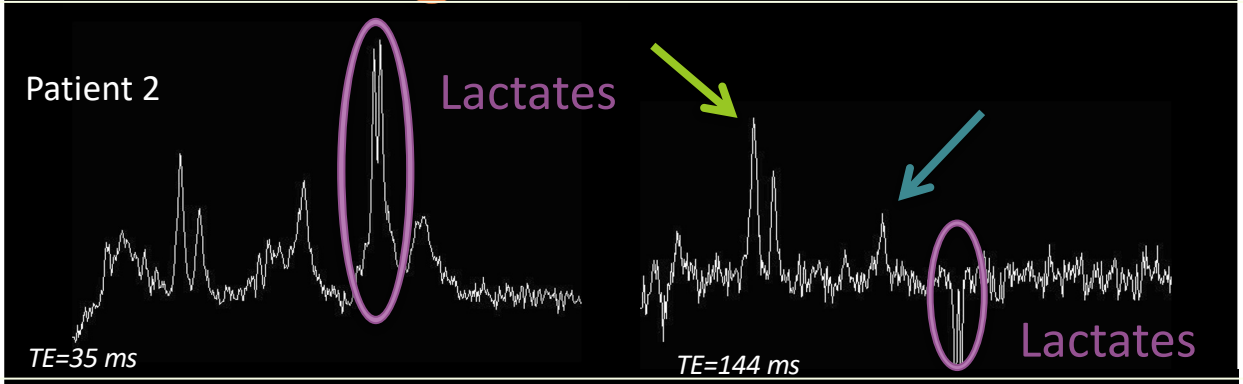


Pseudo-tumeurs : apport de la multimodalité?

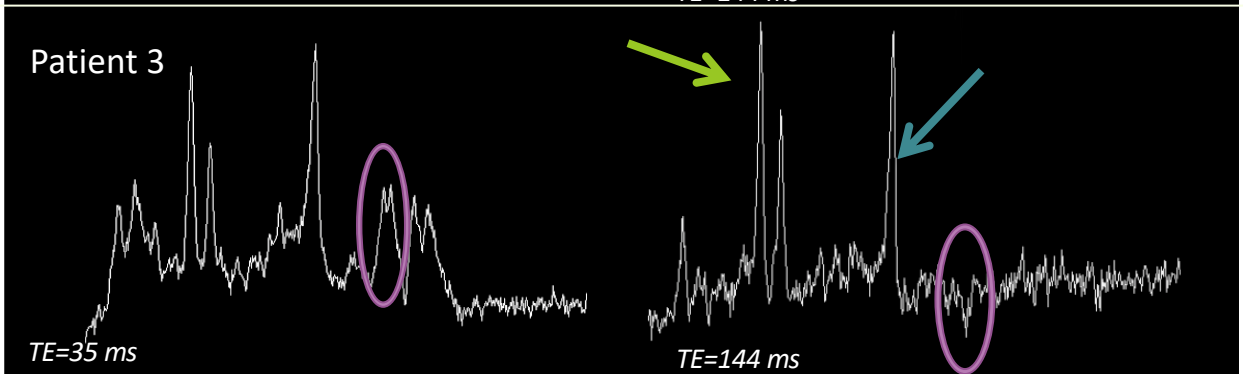
Spectroscopie :



Non-spécifique!



= AVC



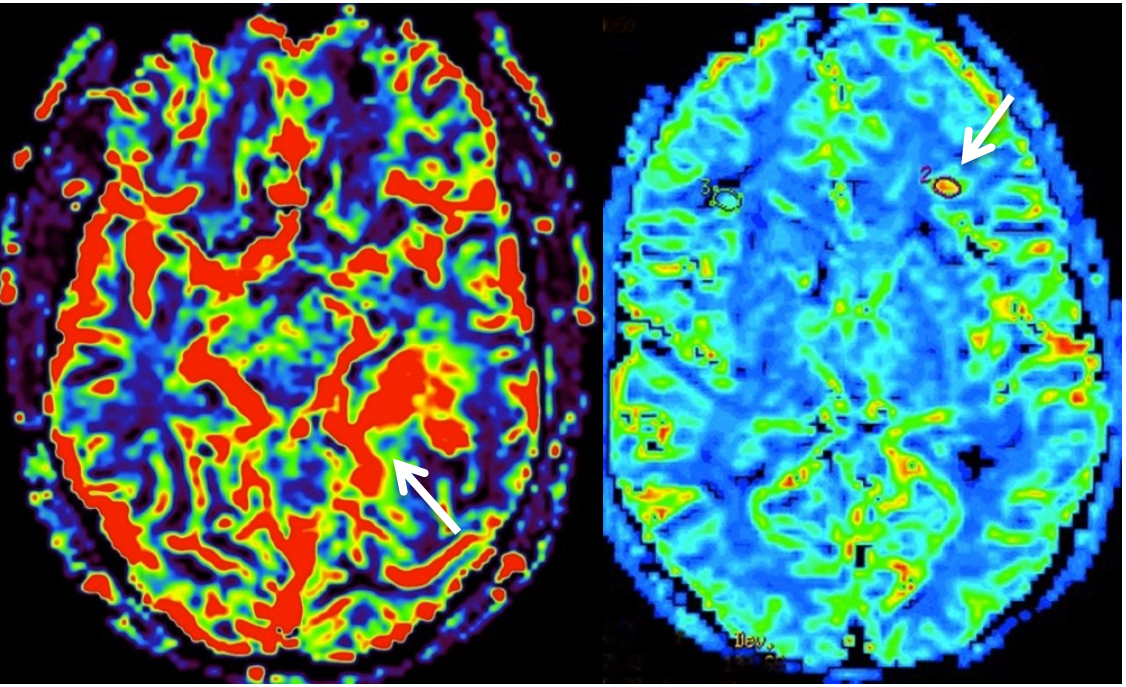
= démyélinisant

= AVC

Pseudo-tumeurs : apport de la multimodalité?

Hyperperfusion ≠ tumeur

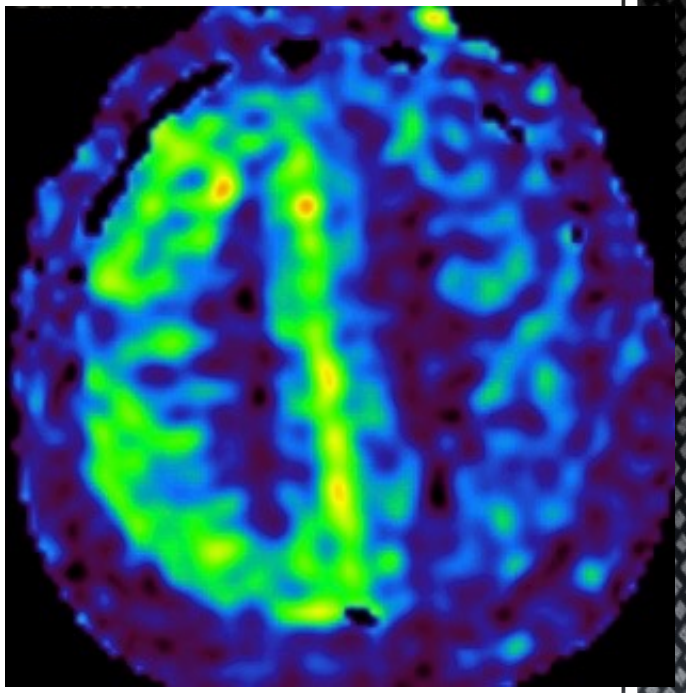
Perfusion + gado (DSC)



AVC
= perfusion de luxe
= > 72h

Histiocytose

Perfusion ASL

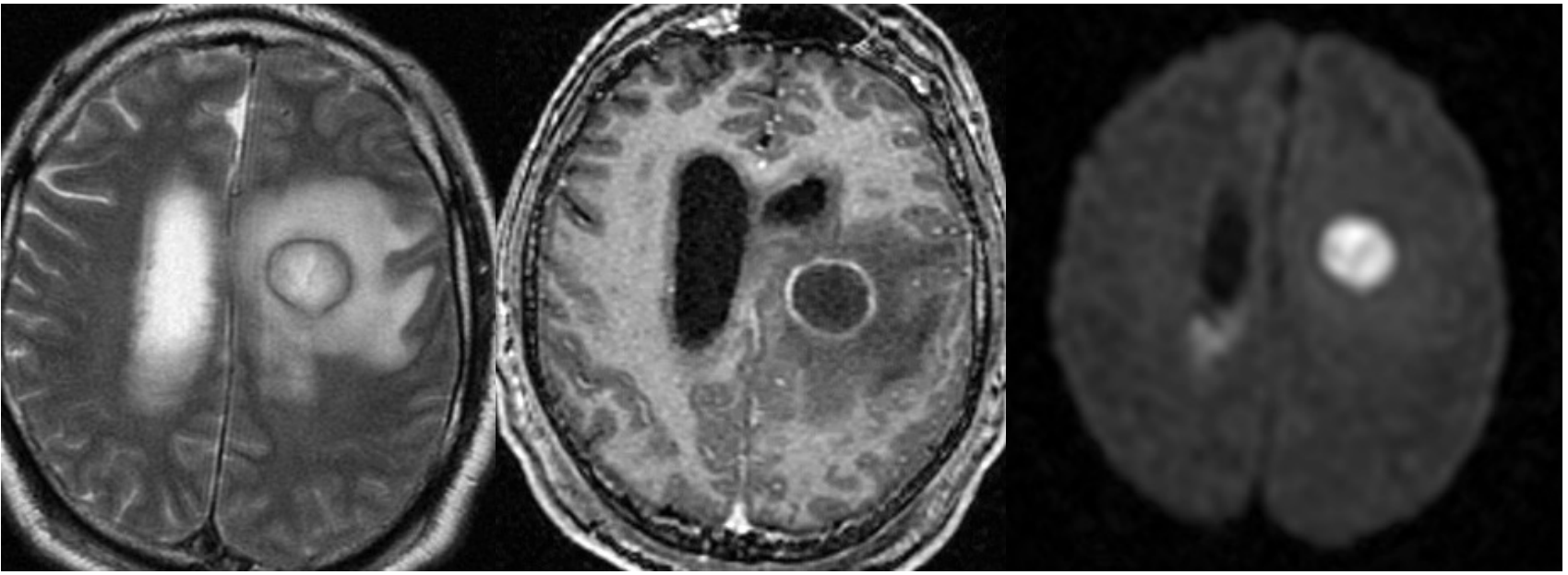


Status epilepticus
= ASL

Diffusion DWI

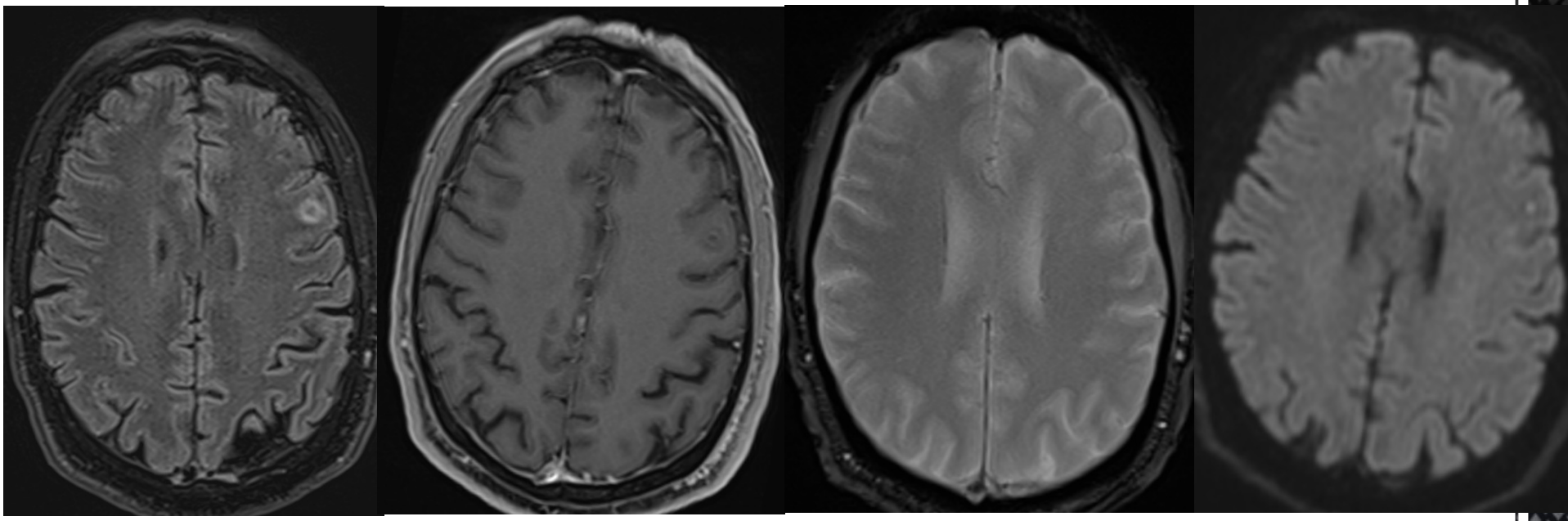
Lésion nécrotique

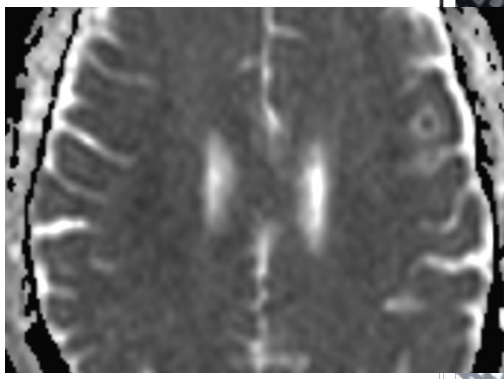
K oesophage



Diffusion DWI

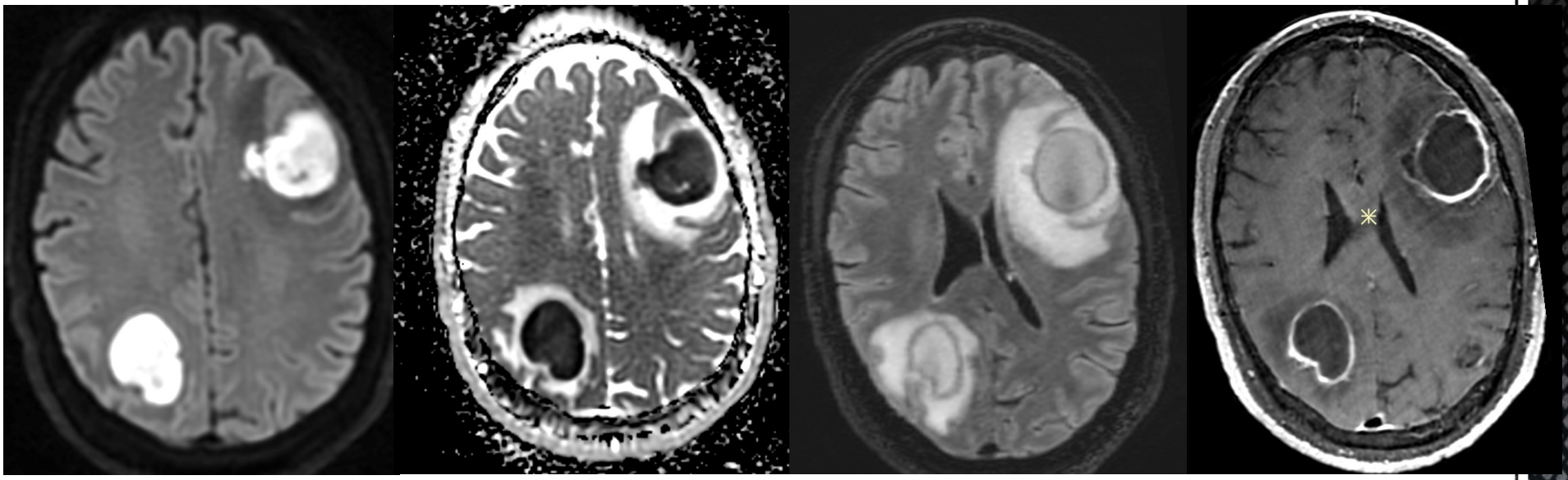
Lésion nécrotique





Diffusion DWI

Lésion nécrotique

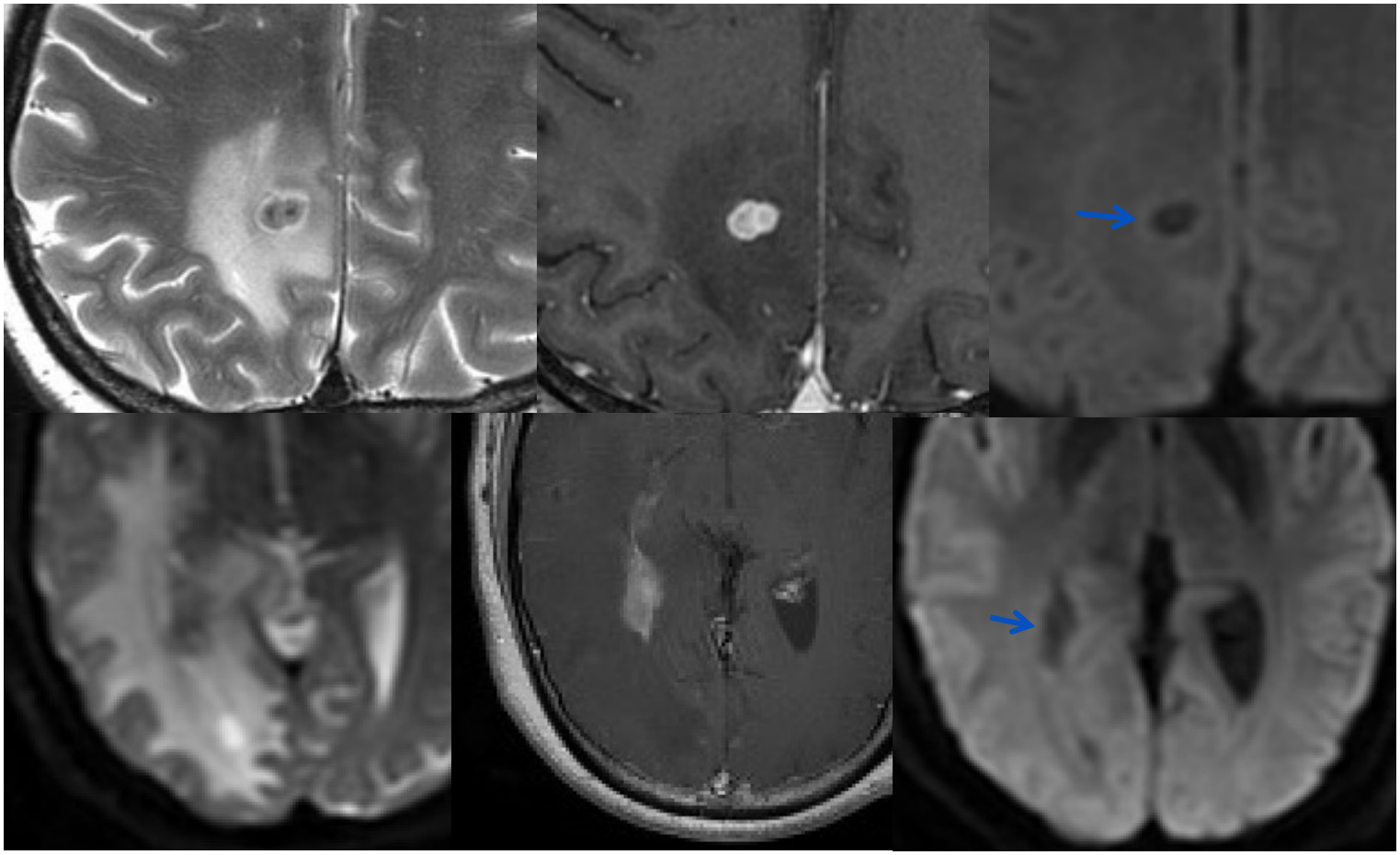


14 jours après…

hypoT2

Lésion solide

Pas de restriction de la diffusion
= penser infection + inflammatoire



BK

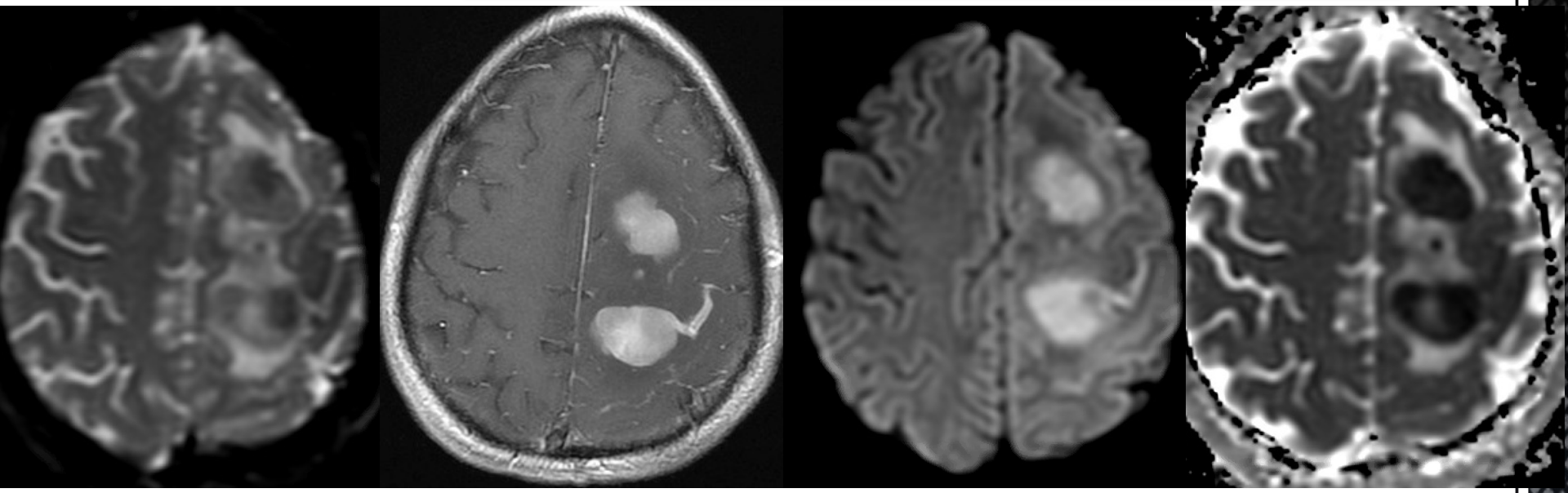
Sarcoïdose

Hyposignal DWI

hypoT2

Lésion solide

Tumeur hypoT2
= habituellement hypercellulaires en DWI



BO

Leucémie

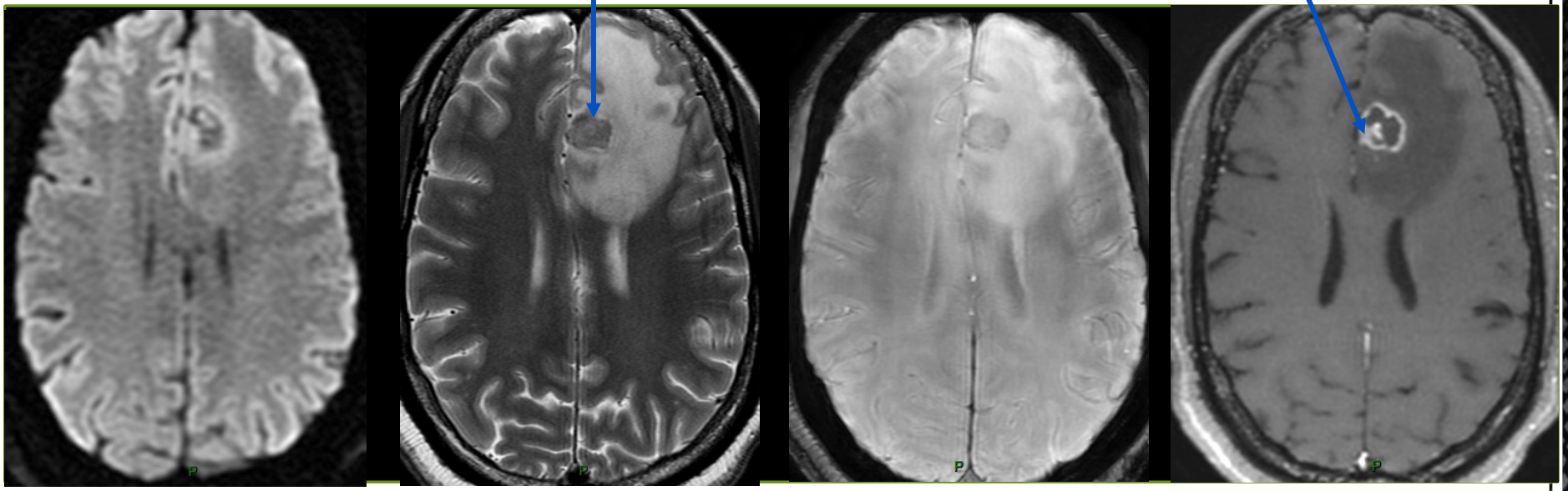
Hypersignal DWI

ADC bas
= hypercellulaire

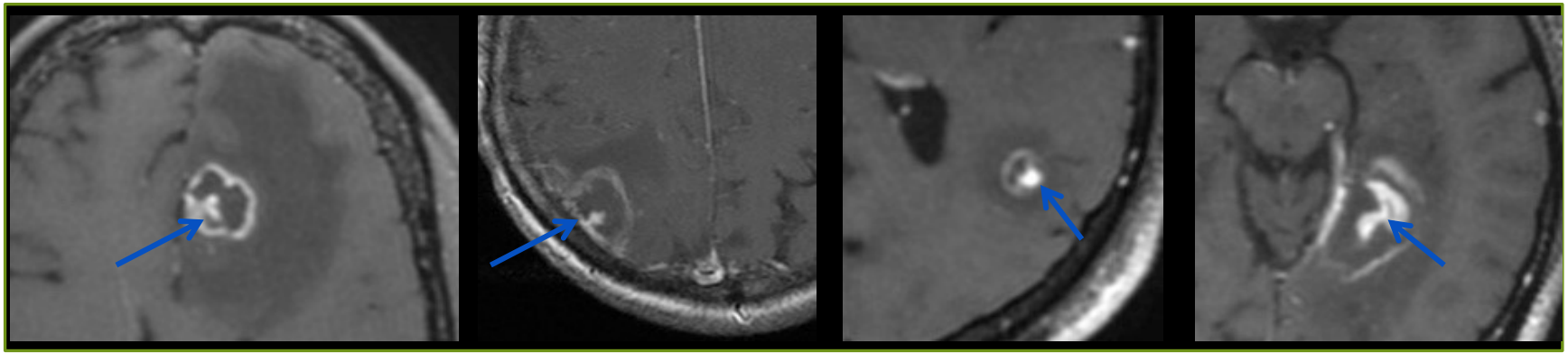
Pseudotumeurs

HypoT2 = penser infection

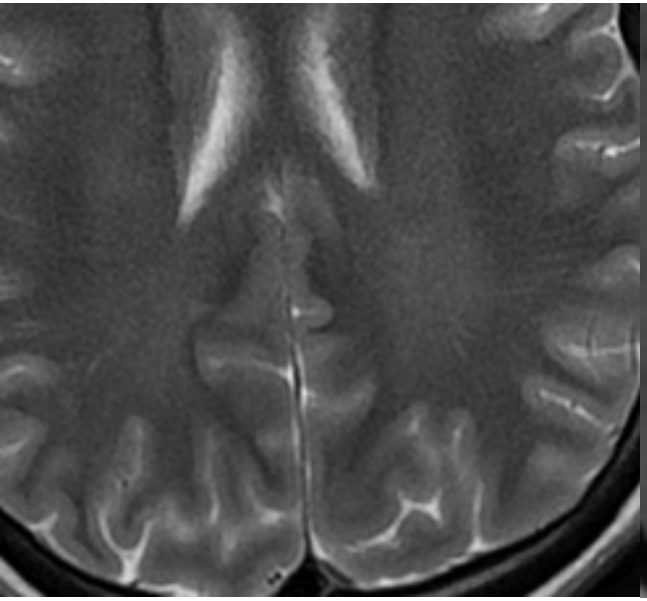
Prise de contraste typique

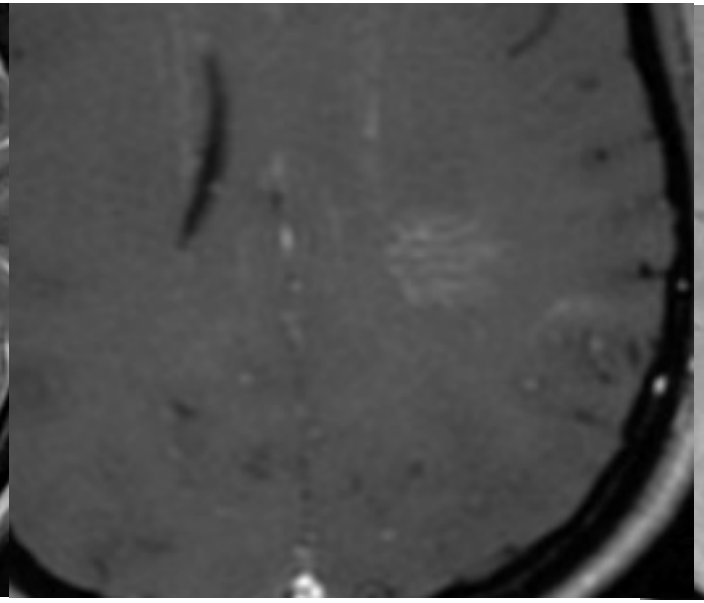


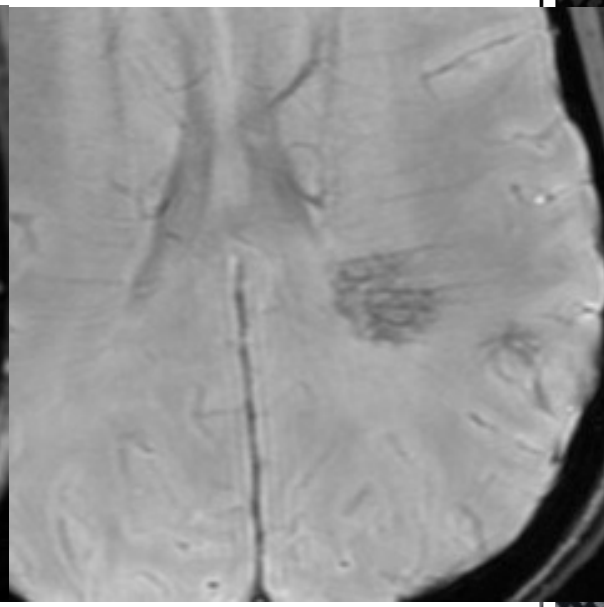
Eccentric target sign = toxoplasmose



Aspects de pdc

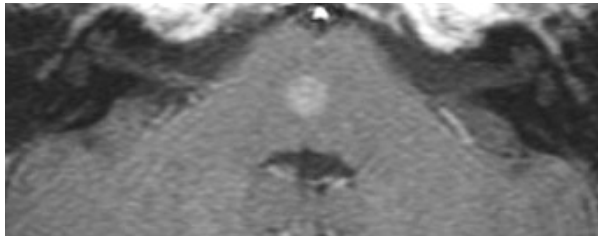






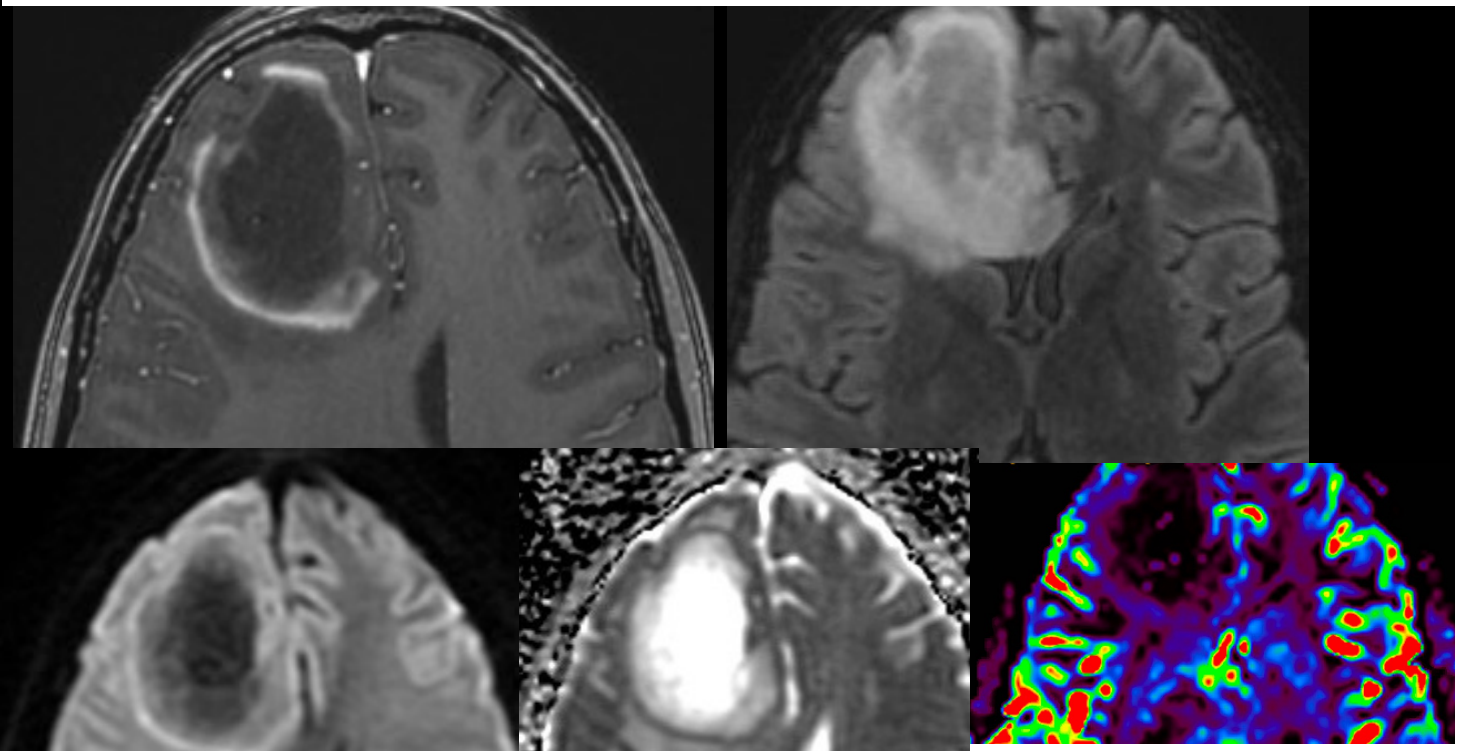
Télangiectasie capillaire

SWI +++



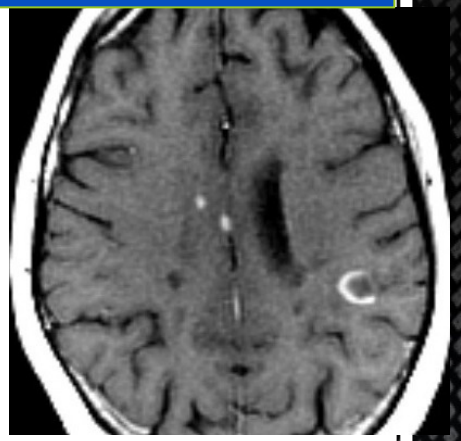
Aspects de pdc

Anneau ouvert = démyelinisation

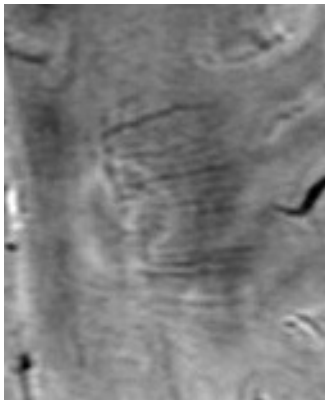


restriction diffusion

Pas hyperperfusé
≠ glioblastome

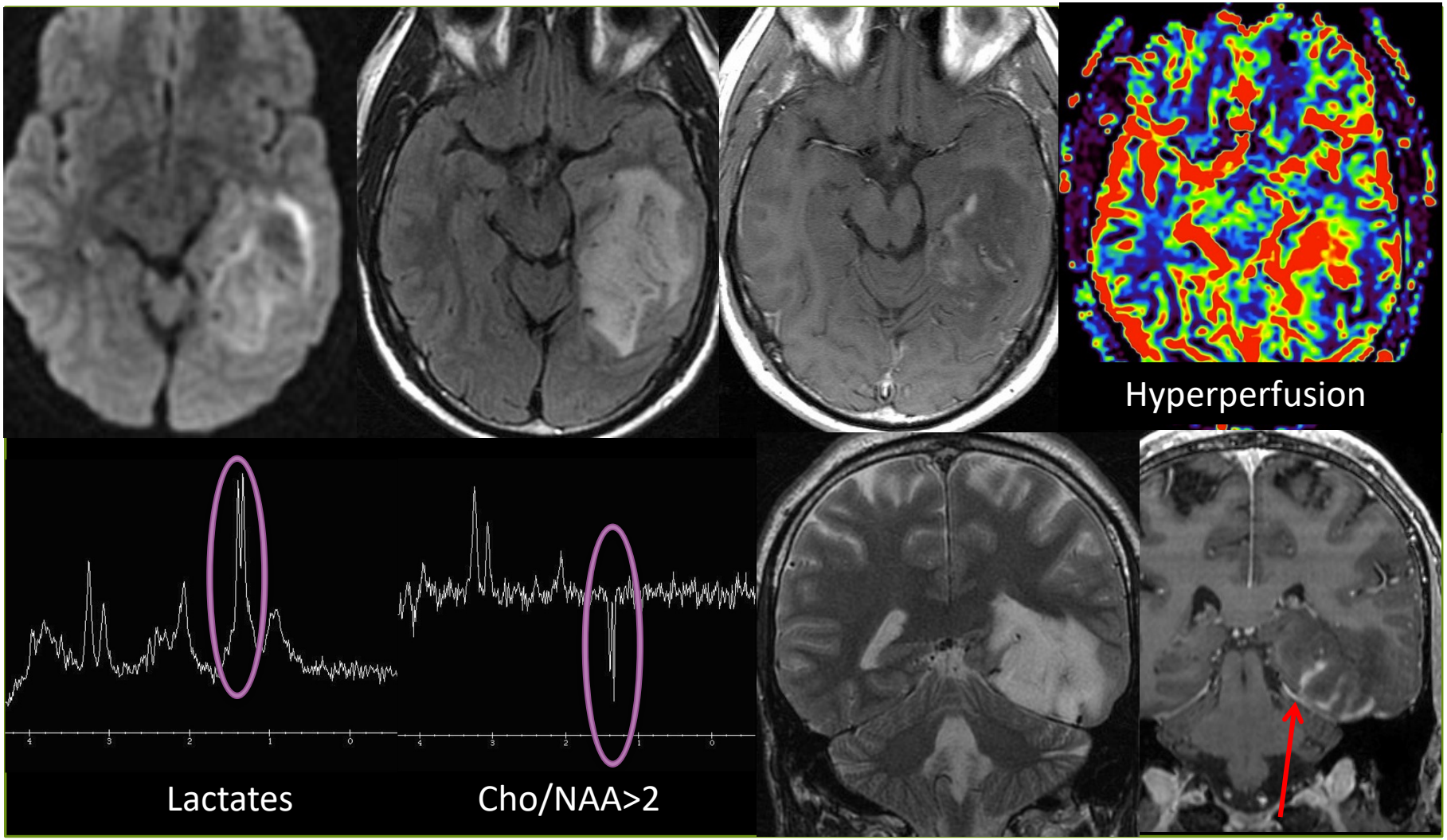


MS



SWI

Pseudotumeurs

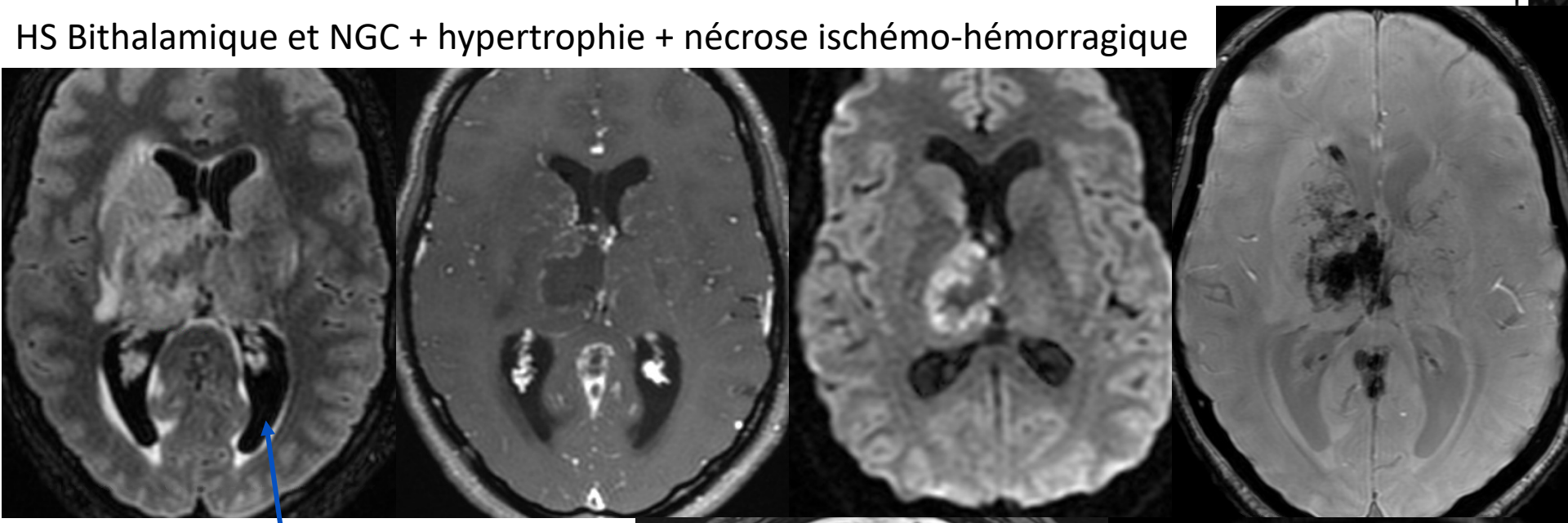


Pseudotumeurs : topographie

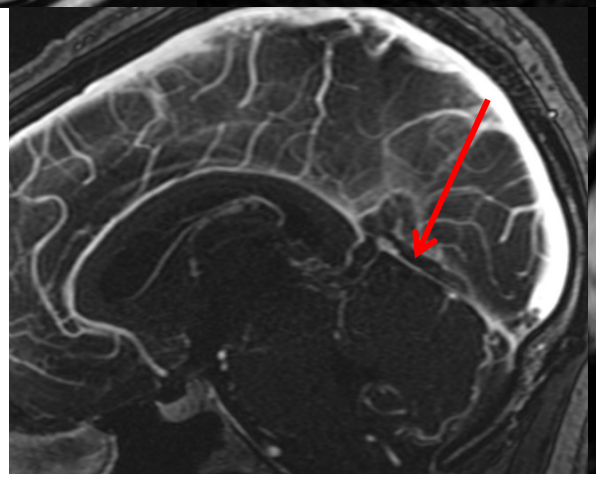
Thrombose veineuse profonde

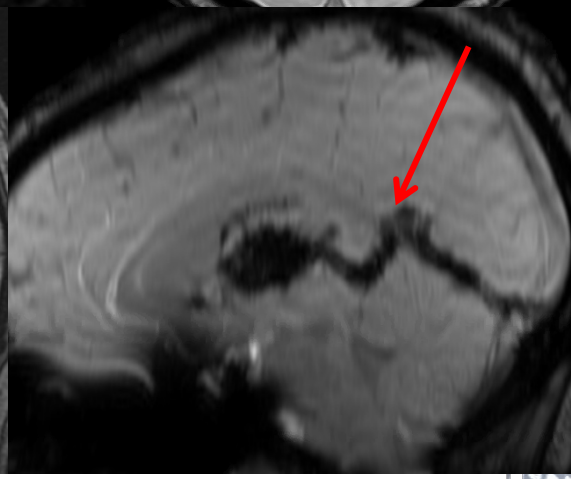
SWI +++thrombus

HS Bithalamique et NGC + hypertrophie + nécrose ischémo-hémorragique



Hydrocéphalie
= obstruction Monro

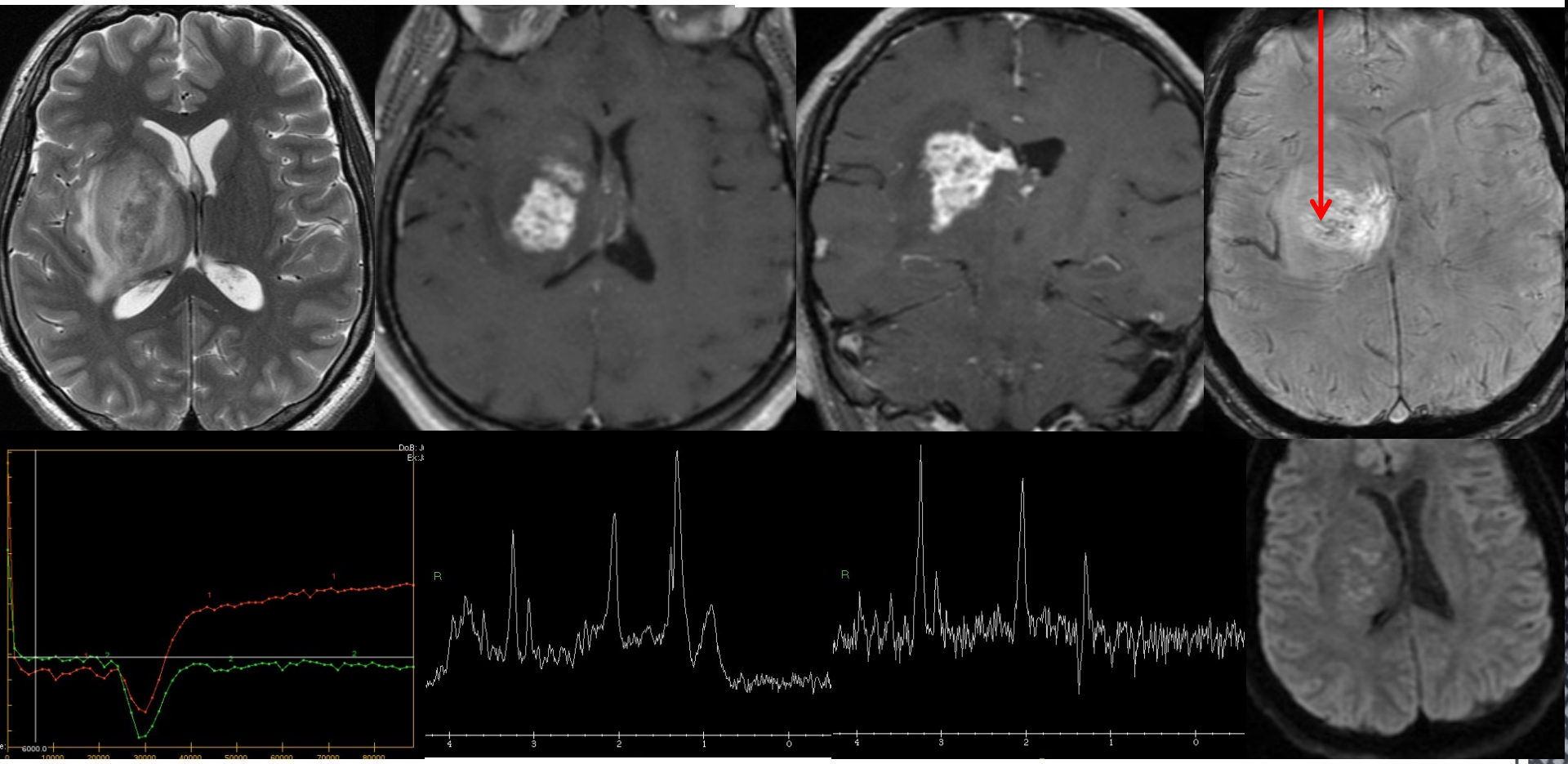




Pseudotumeurs : topographie

Neuro-Behçet

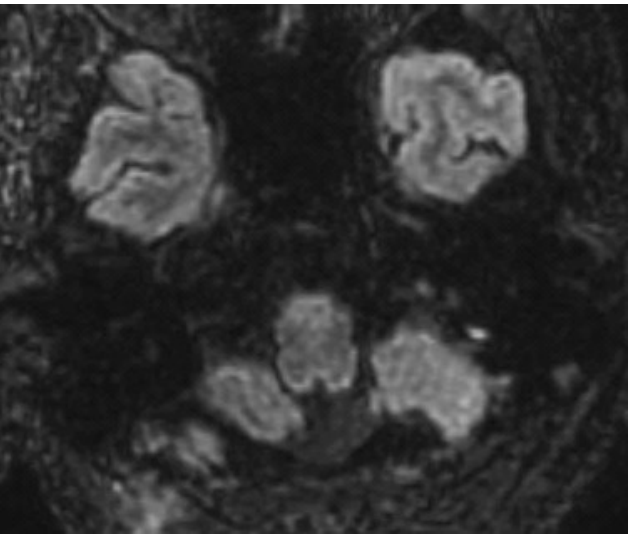
SWI = hémorragies, veines dilatées, thromboses

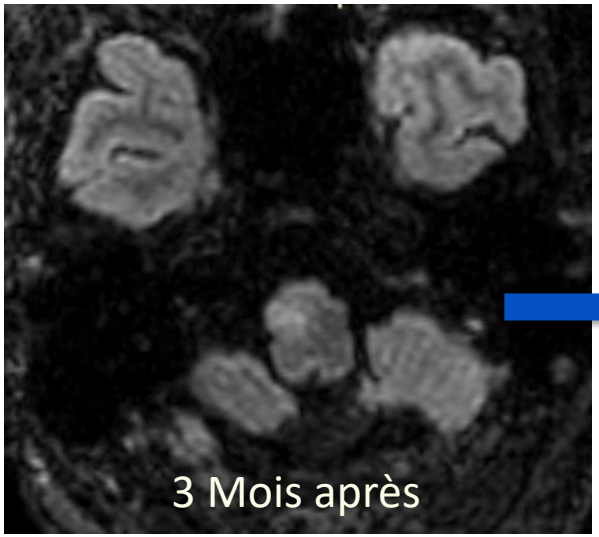


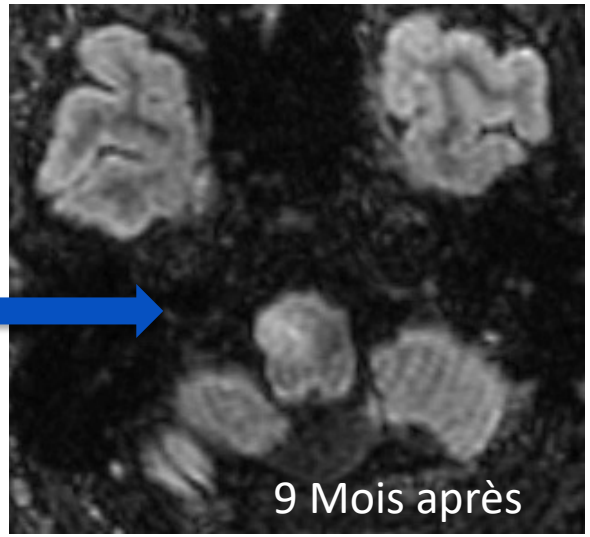
Capsule interne ++ NGC + thalamus

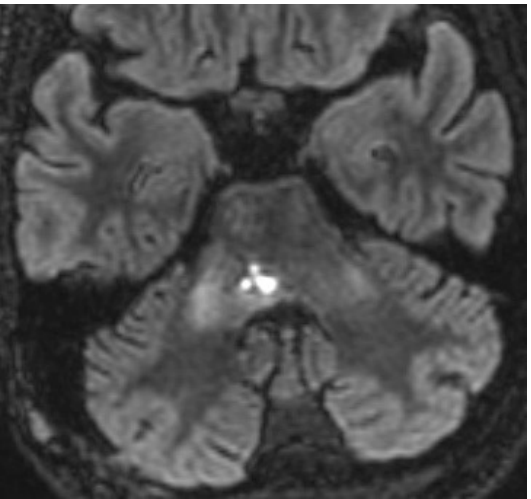
Pseudotumeurs : topographie

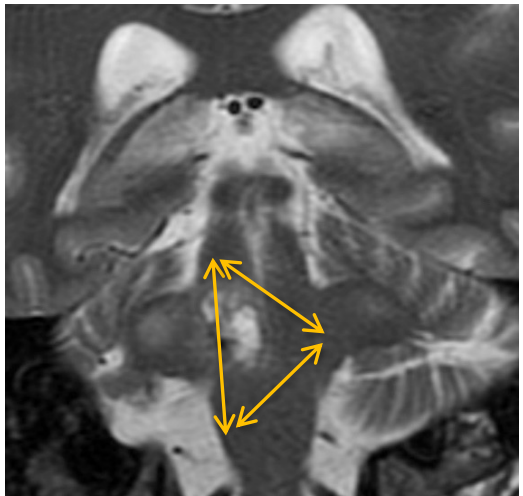
Dégénérescence hypertrophique olive bulbaire





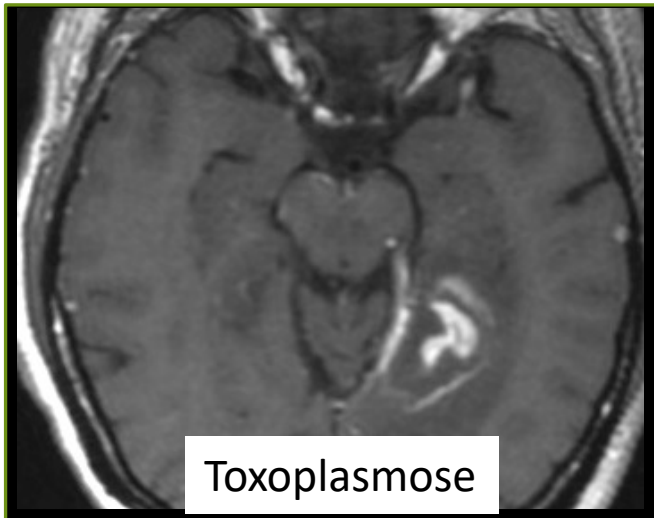




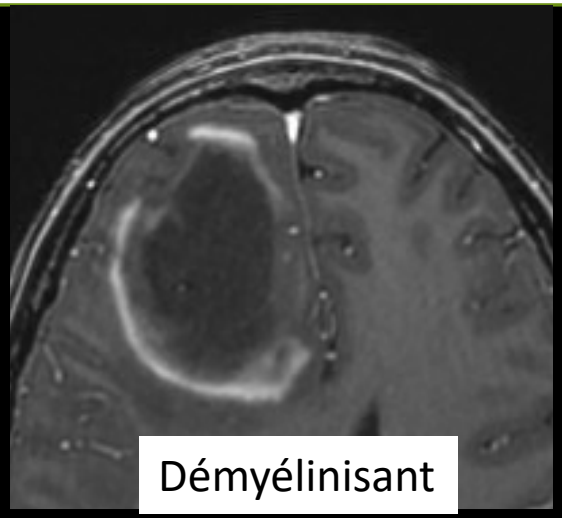


Dégénérescence trans-synaptique
= interruption triangle Guillain-Mollaret
→ hypertrophie transitoire olive bulbaire
DDx= Gliome bulbaire hypertrophique

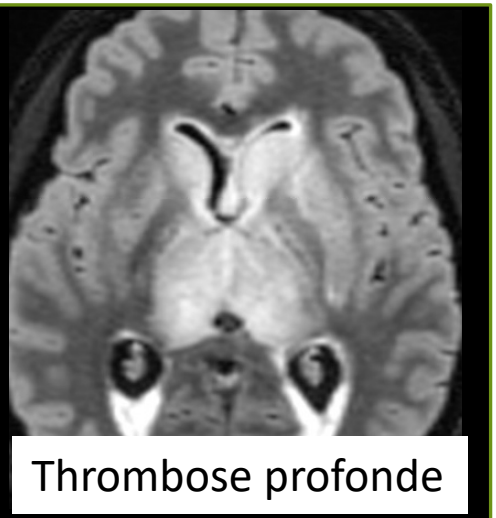
Pseudotumeurs



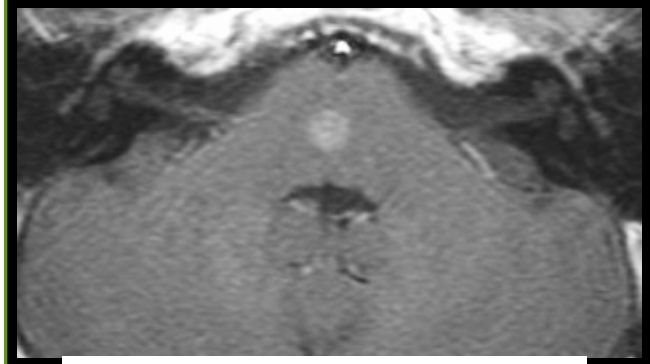
Toxoplasmose



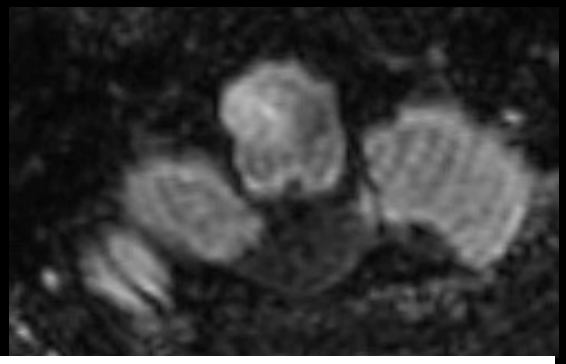
Démyélinisant



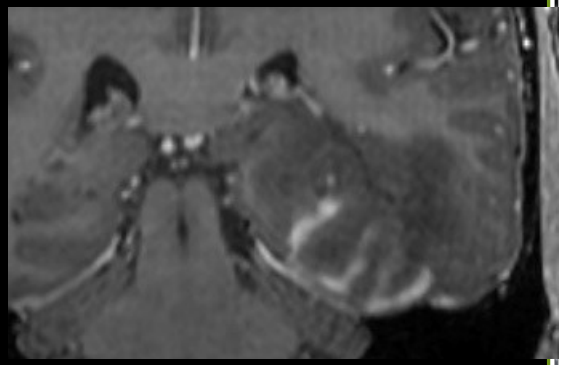
Thrombose profonde



Télangiectasie capillaire



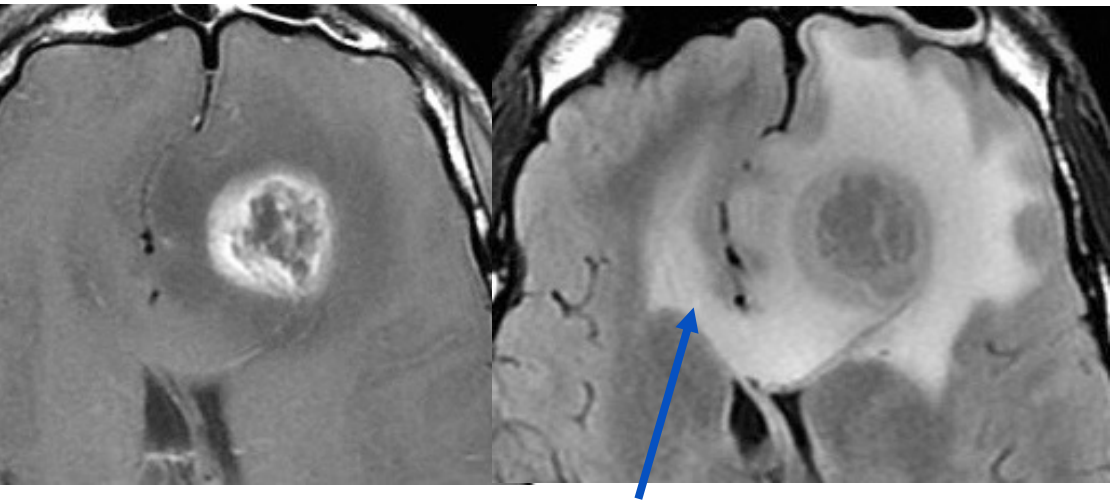
Dég Hyp olive bulbaire



AVC

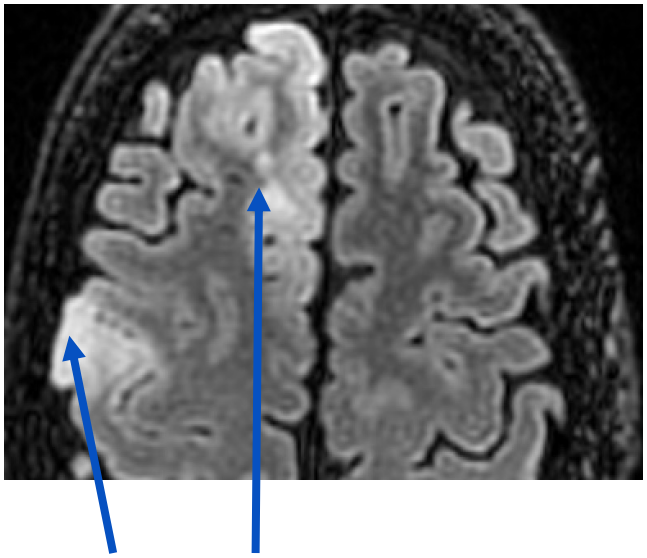
Gliome ou métastase?

Œdème vasogénique ne franchit pas le corps calleux



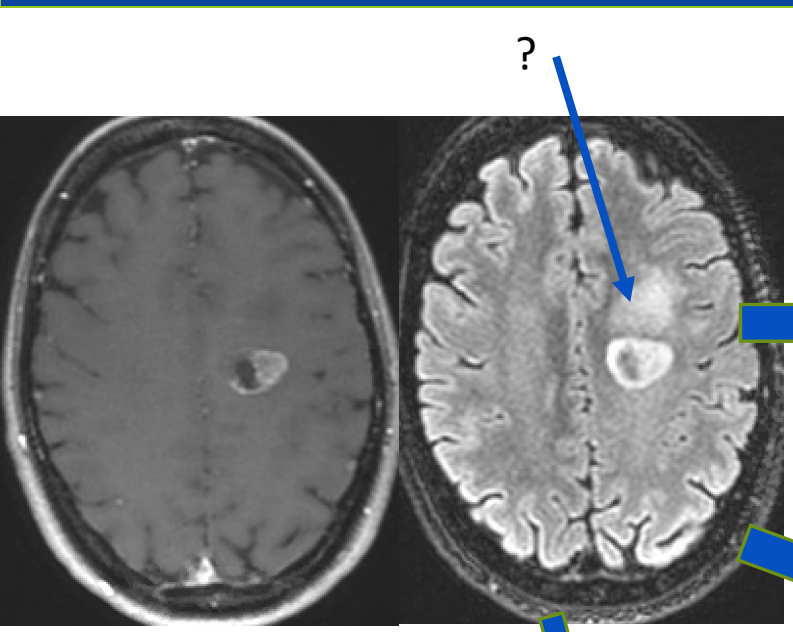
= Gliome

Œdème vasogénique n'infiltre pas le cortex

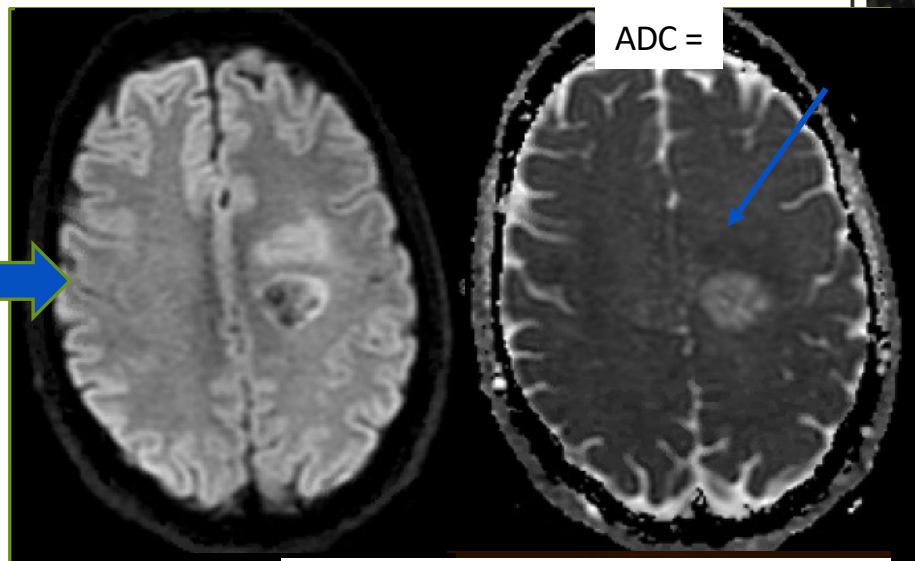


Infiltration corticale

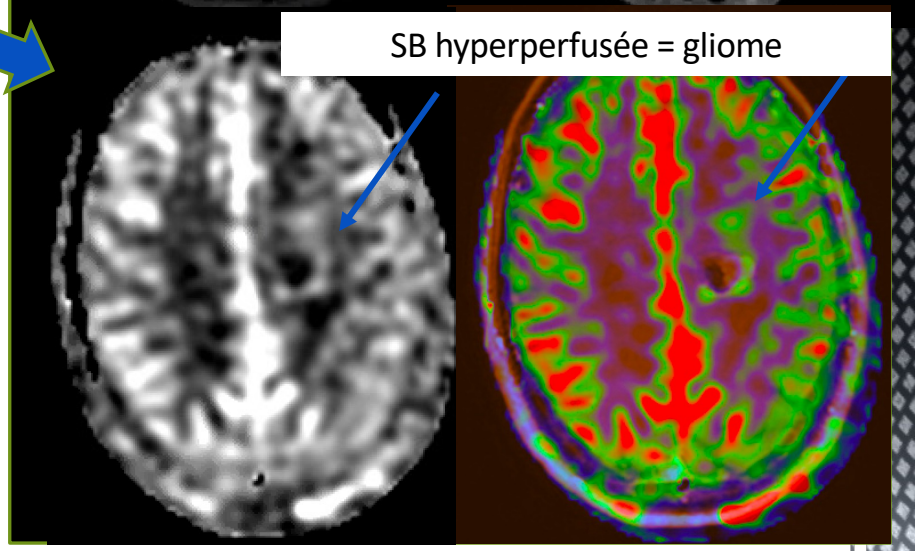
Œdème vasogénique ou infiltration ?

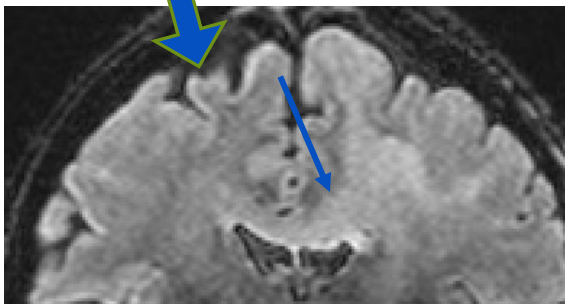


diffusion



Perfusion



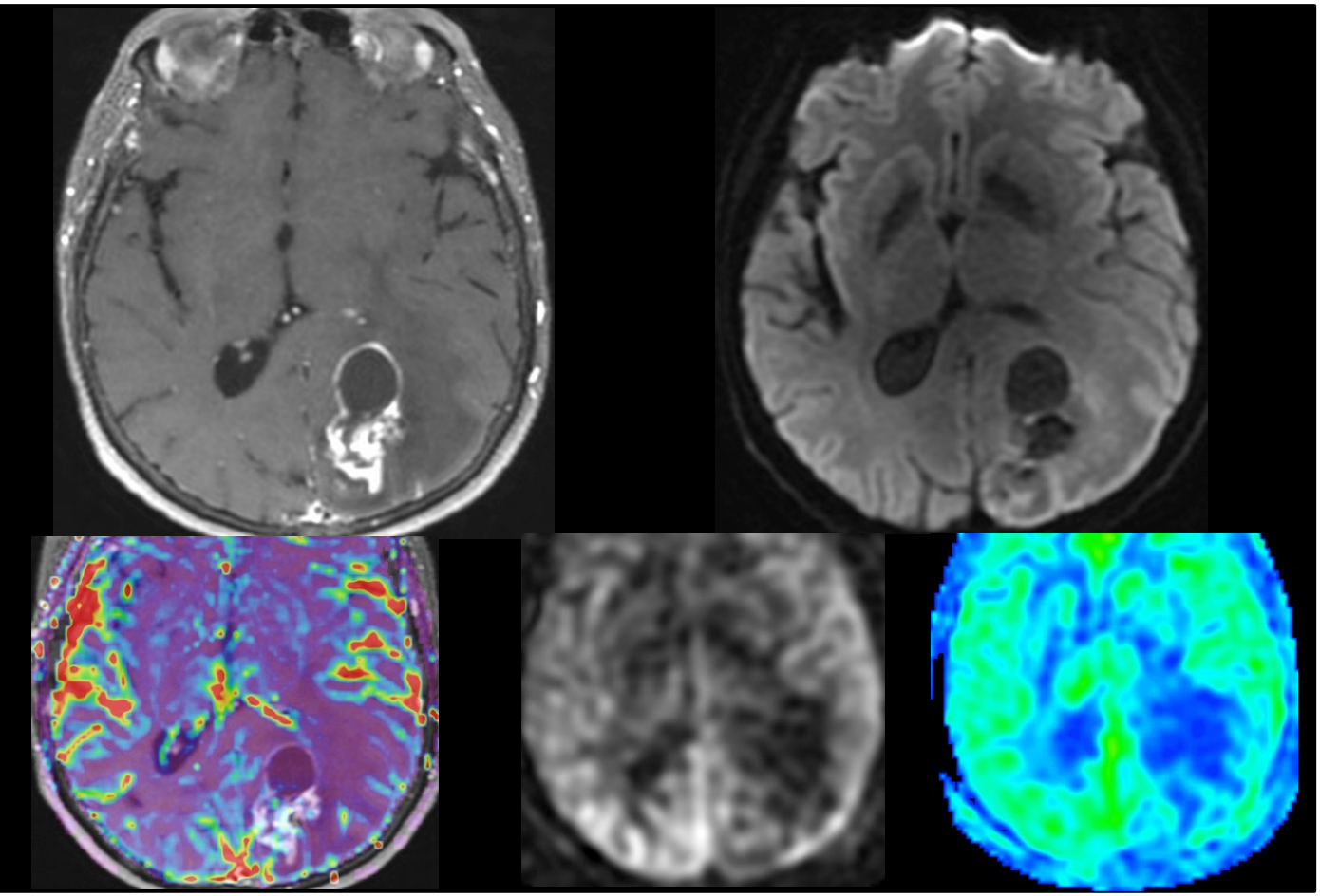


Traverse corps calleux
≠ oedeme vasogénique

ASL

Gliome ou métastase?

Coregistration +++ (cortex, vx)



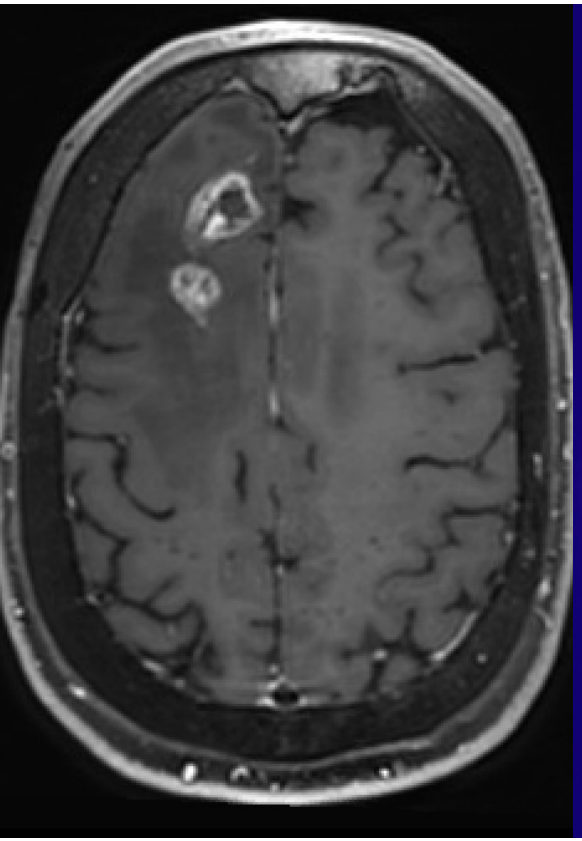
DSC rCBV | ASL | ASL CBF

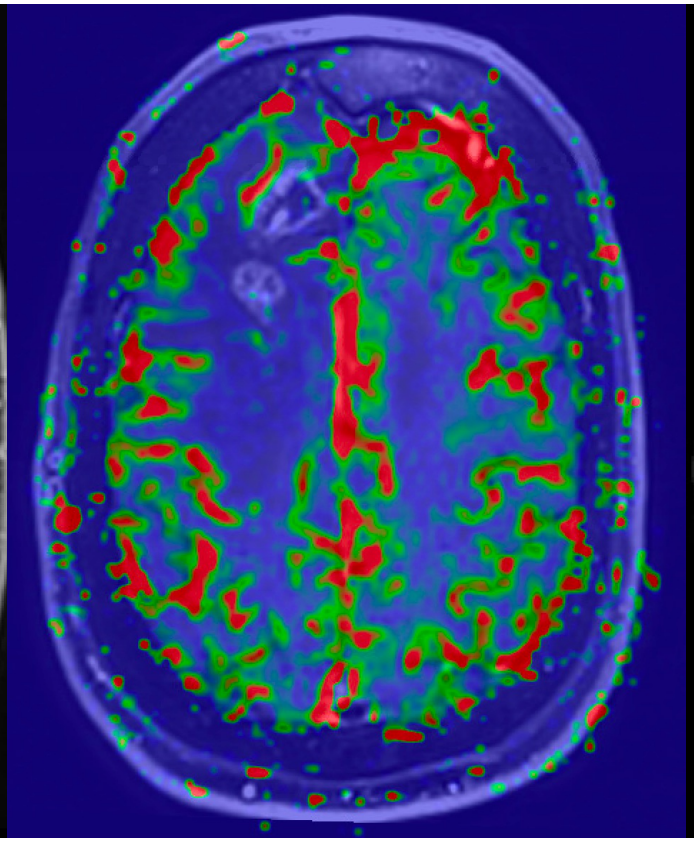
Morphologie compatible
Avec gliome

Pas d'hyperperfusion

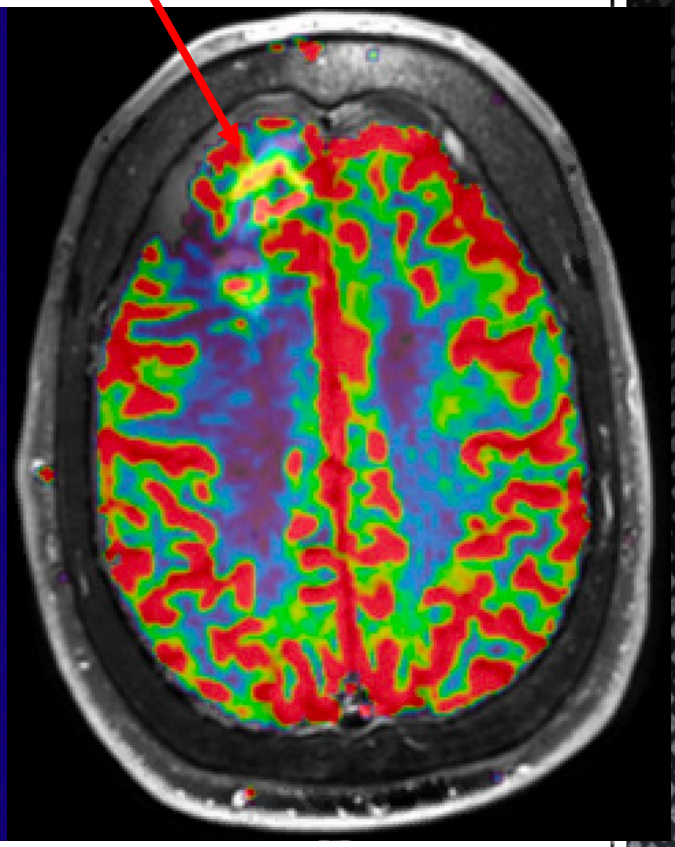
Métastase

DSC perfusion : leakage



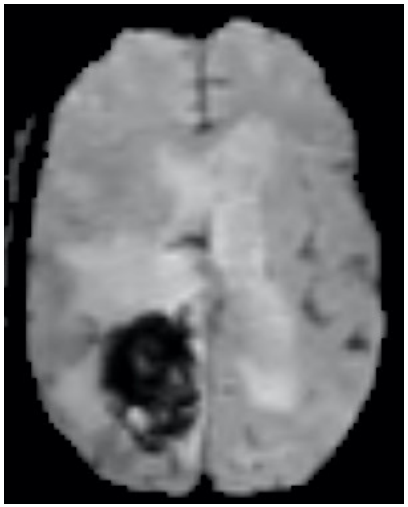


Coregistration = rCBV
Sans correction leakage

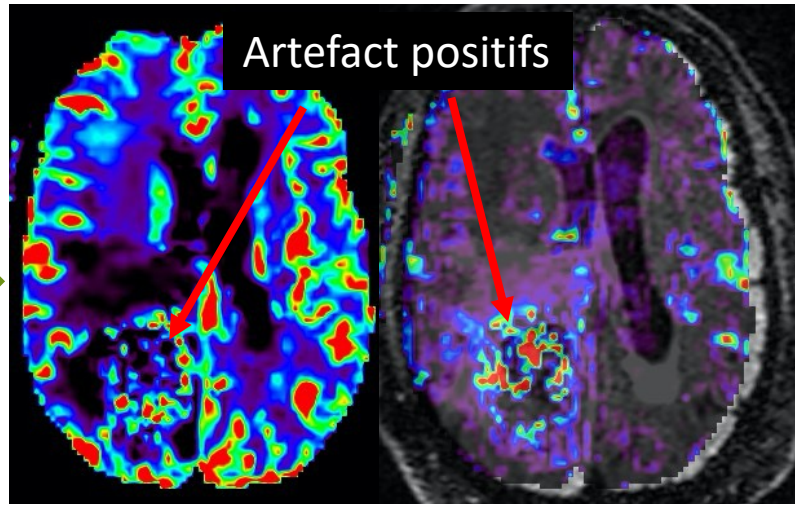


Coregistration + rCBV
Avec correction leakage

DSC perfusion : lésion hémorragique

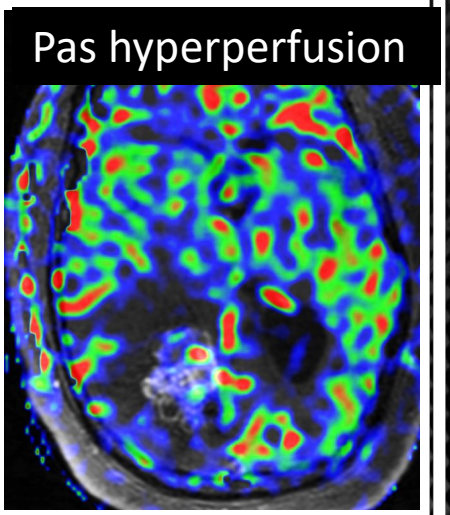


Native DSC image

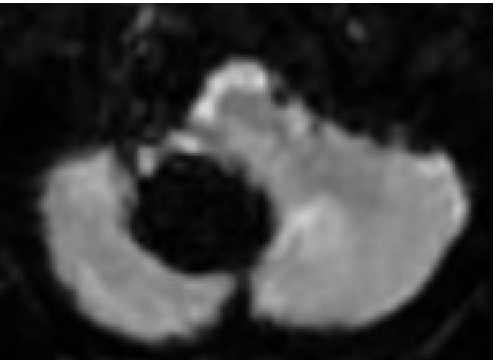


rCBV

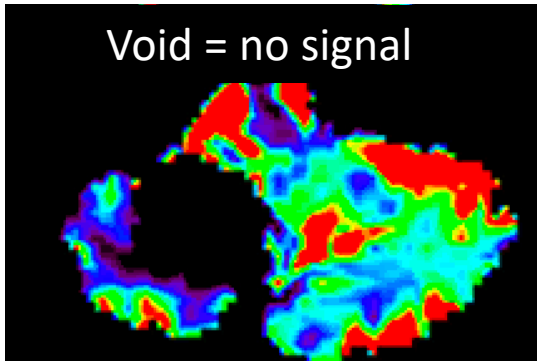
K2



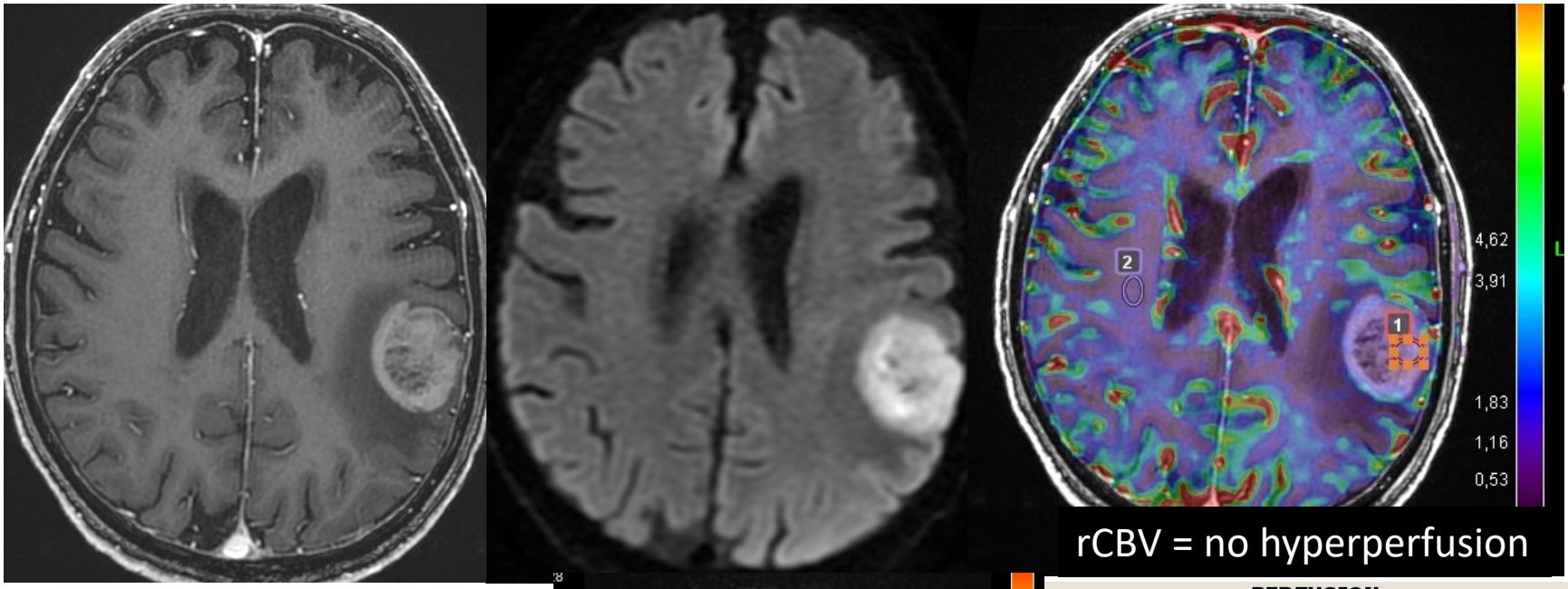
ASL



Native DSC image



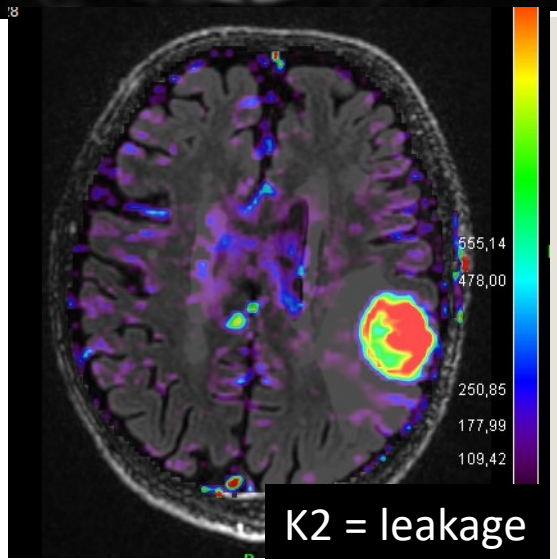
rCBV



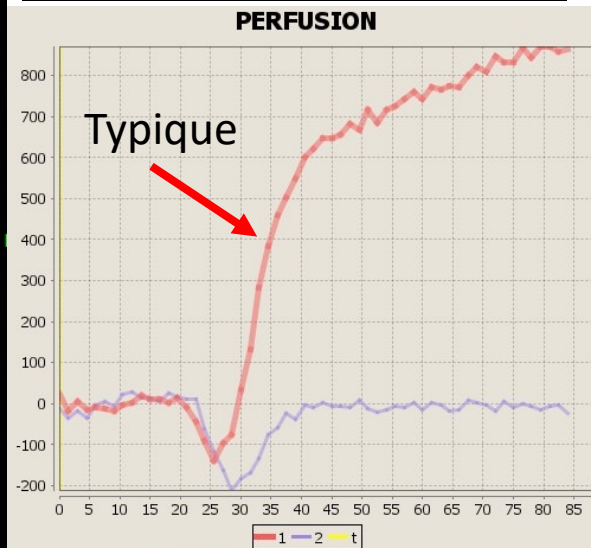
rCBV = no hyperperfusion

Lymphome nécrotique
= corticoïdes
3 jours avant MRI

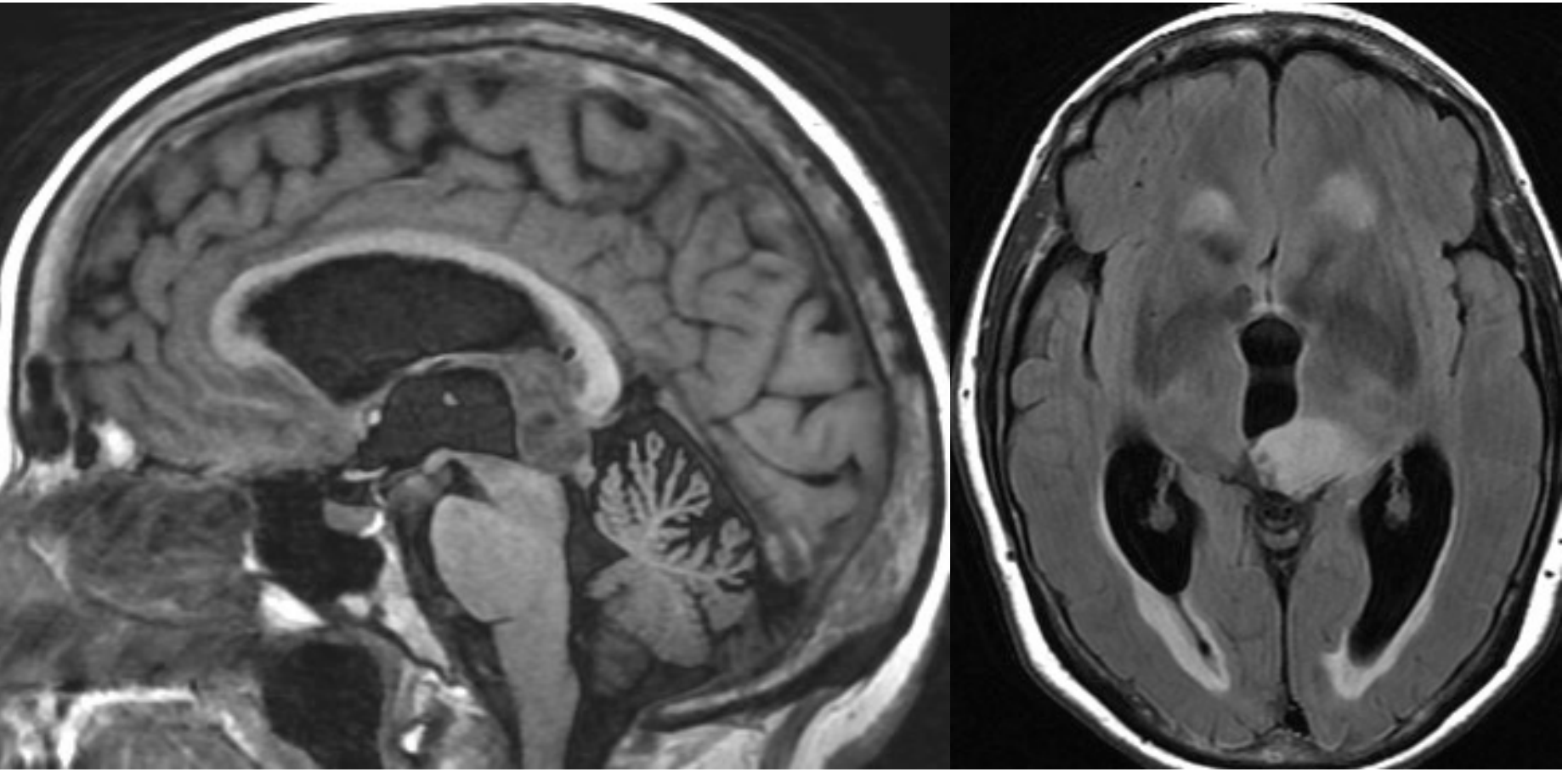
Perfusion aide+++



K2 = leakage



Identifier l'urgence = Hydrocéphalie



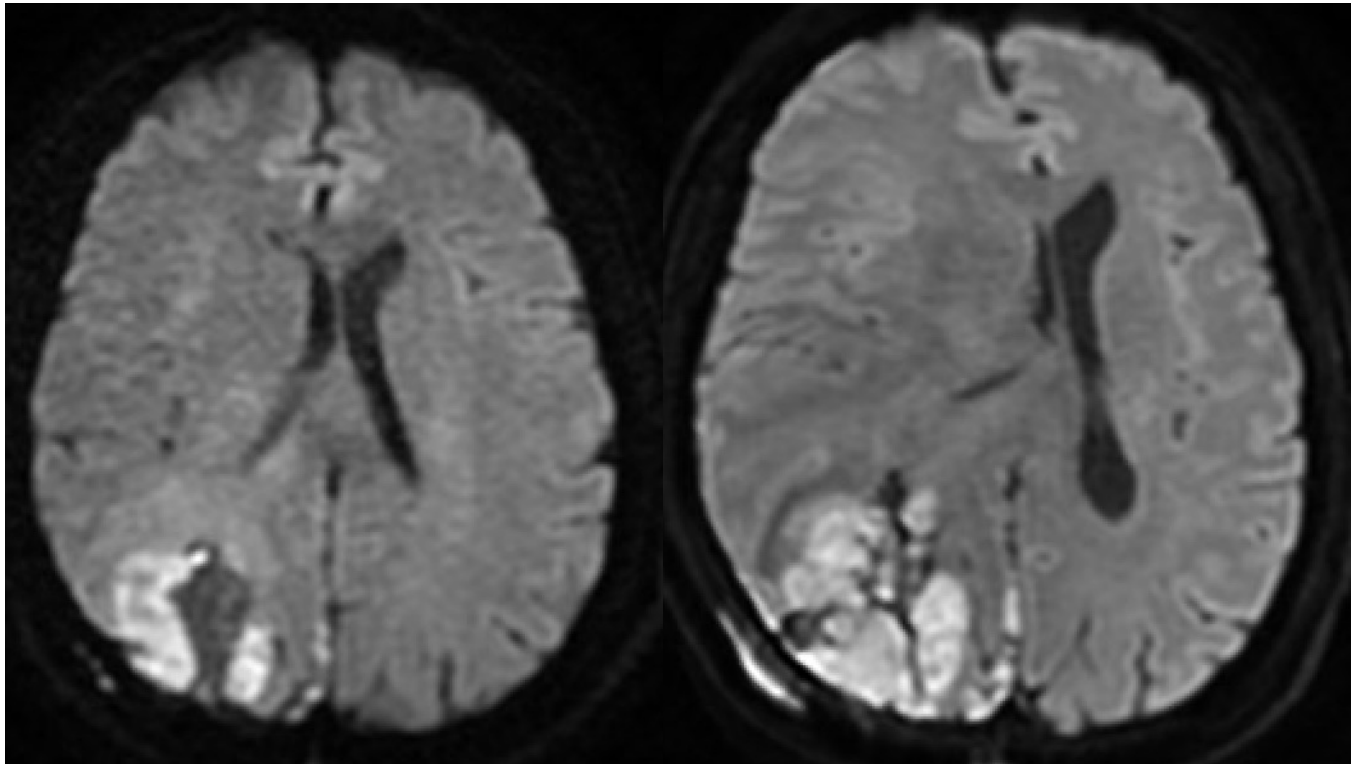
Lésion tectale + hydrocéphalie

= Urgence vitale

décès par hydrocéphalie = rapide ++ même si lésion causale lentement évolutive

Gliome : diffusion reflète cellularité

Savoir quand contrôle rapproché/ prévenir clinicien = diffusion



Sarcome

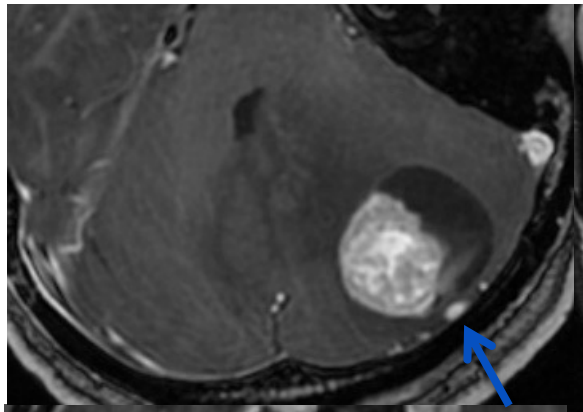
13 jours après

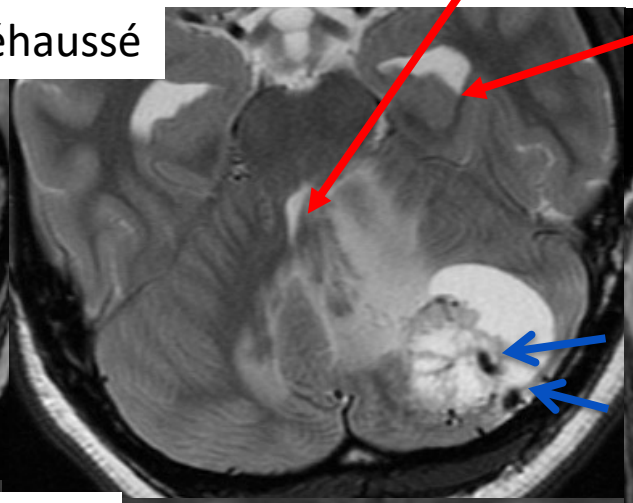
Chercher, voir, décrire vx = risque chirurgical +++

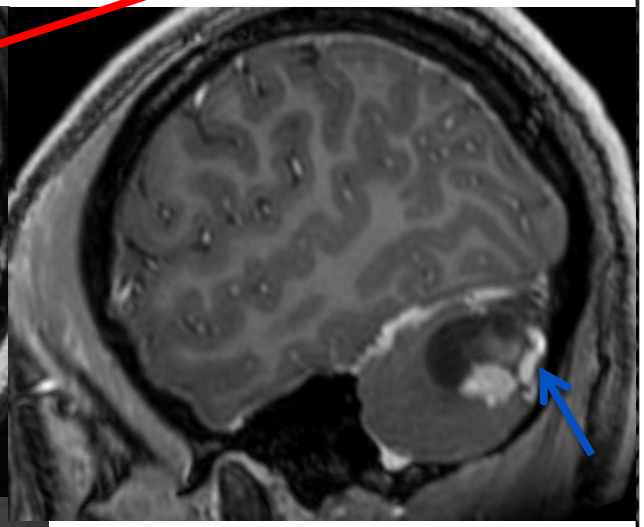
Hémangioblastomes

Mass effect + hydrocéphalie

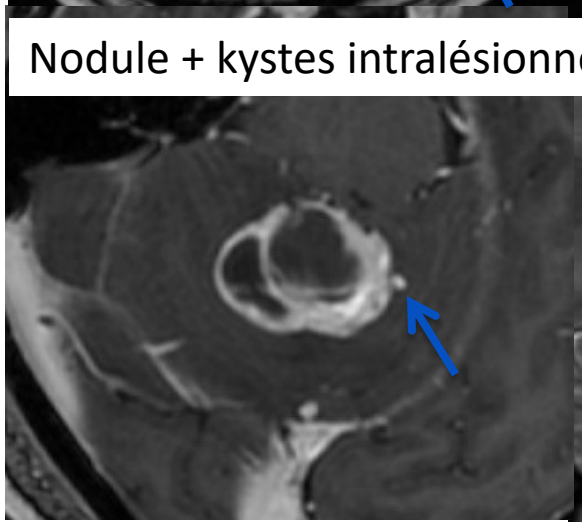
Nodule mural + kyste non réhaussé

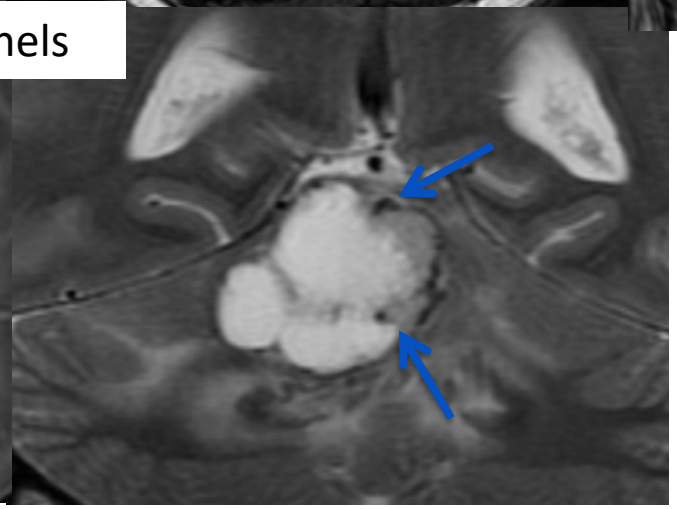






Nodule + kystes intralésionnels

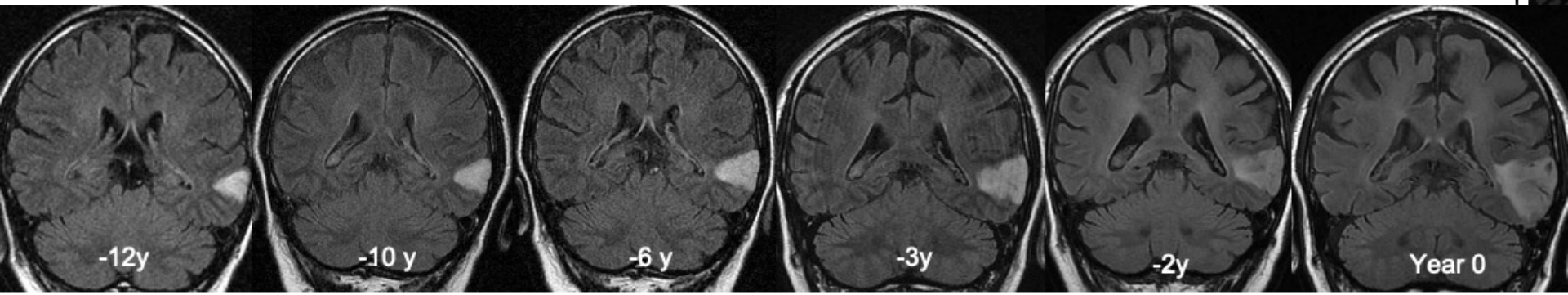




Flow voids

Gliome bas grade, lésion lentement évolutive

Evolution = IRM ancienne, pas juste précédente.



GBG pris pour dysplasie

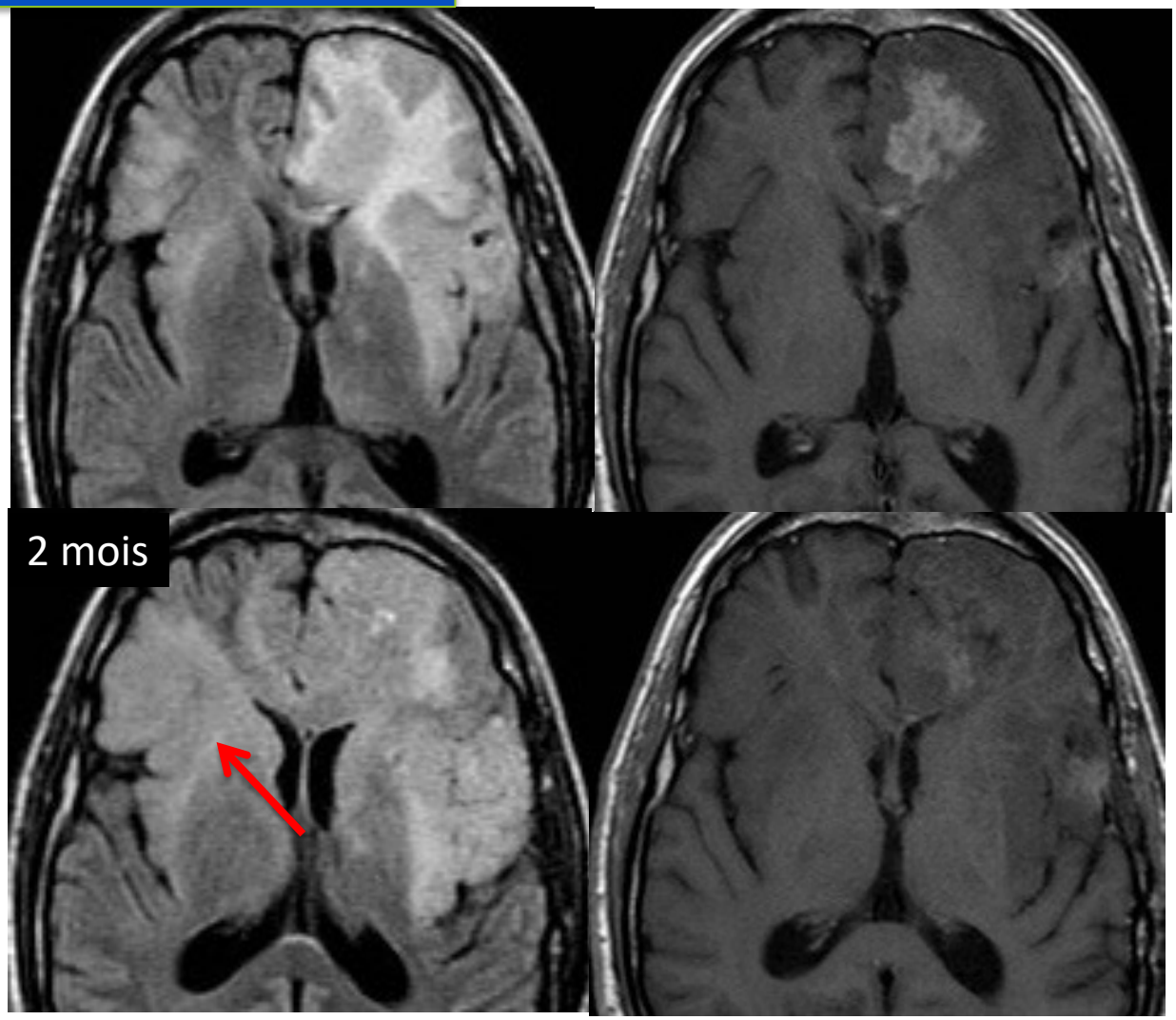
IRM toujours comparées avec précédente.

Gliome bas grade

Croissance lente puis accélération 6 mois avant transformation anaplasique

Pseudoréponse

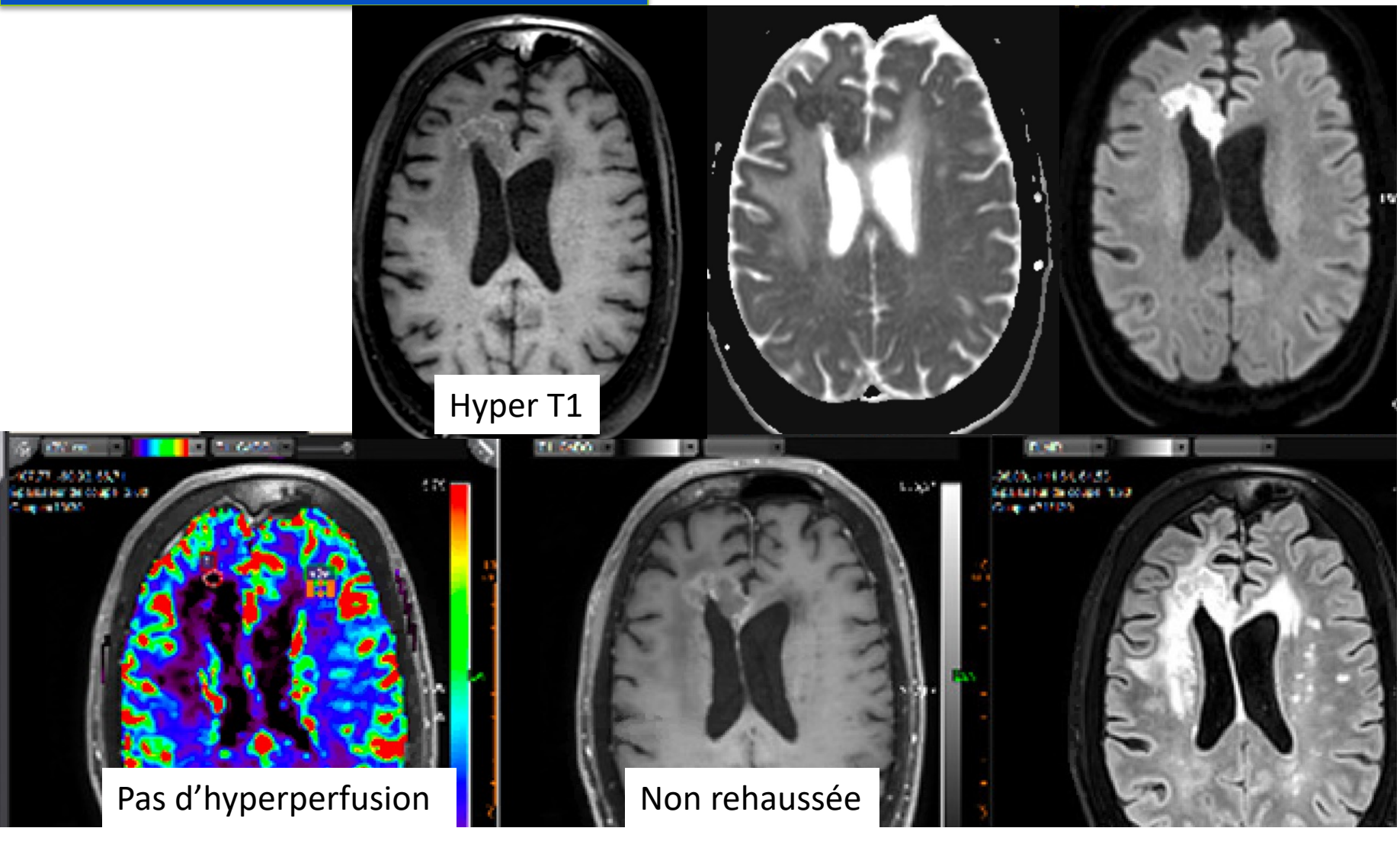
Bevacizumab Avastin



Disparition pdc= 0
MAIS infiltration tumorale ↑

Bevacizumab= avastin

Nécrose gélatineuse / de coagulation



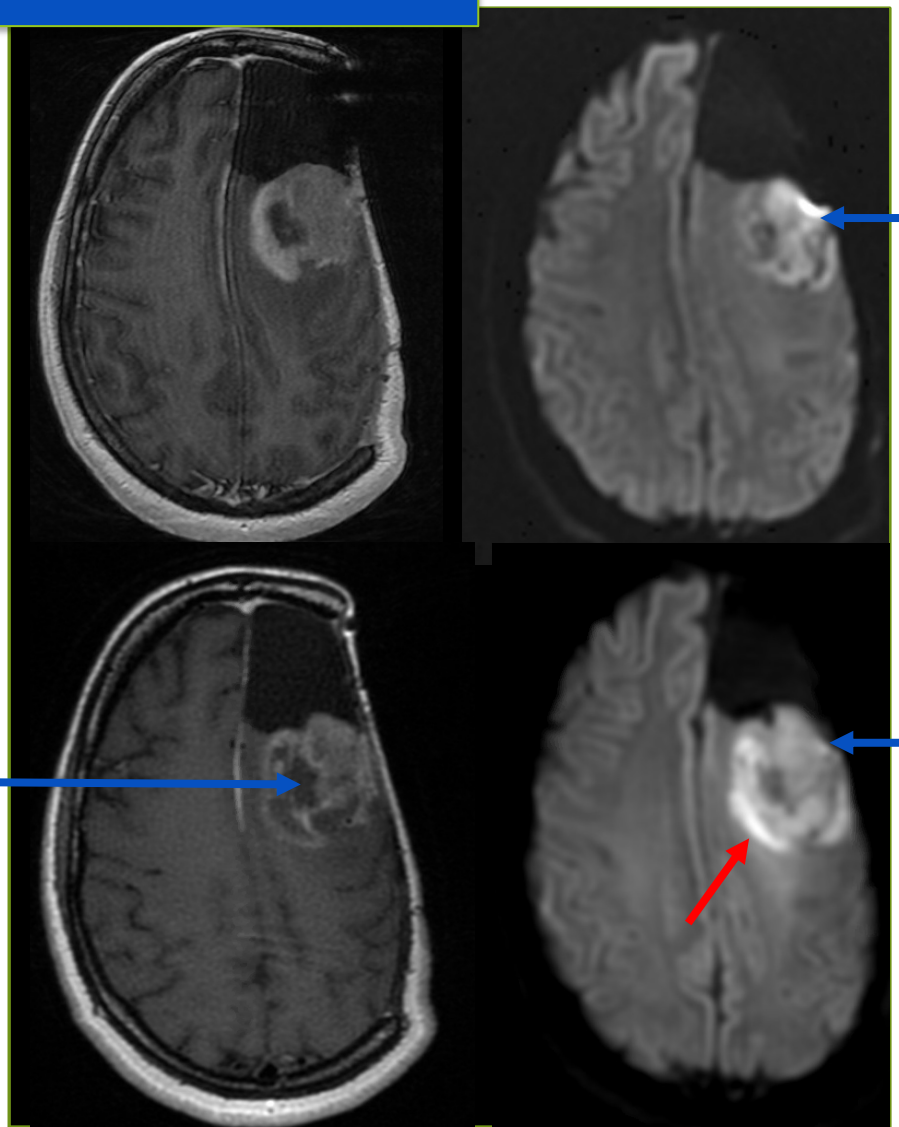
Bevacizumab

Nécrose gélatineuse / de coagulation

Avant BV

Après BV

CEL ↓



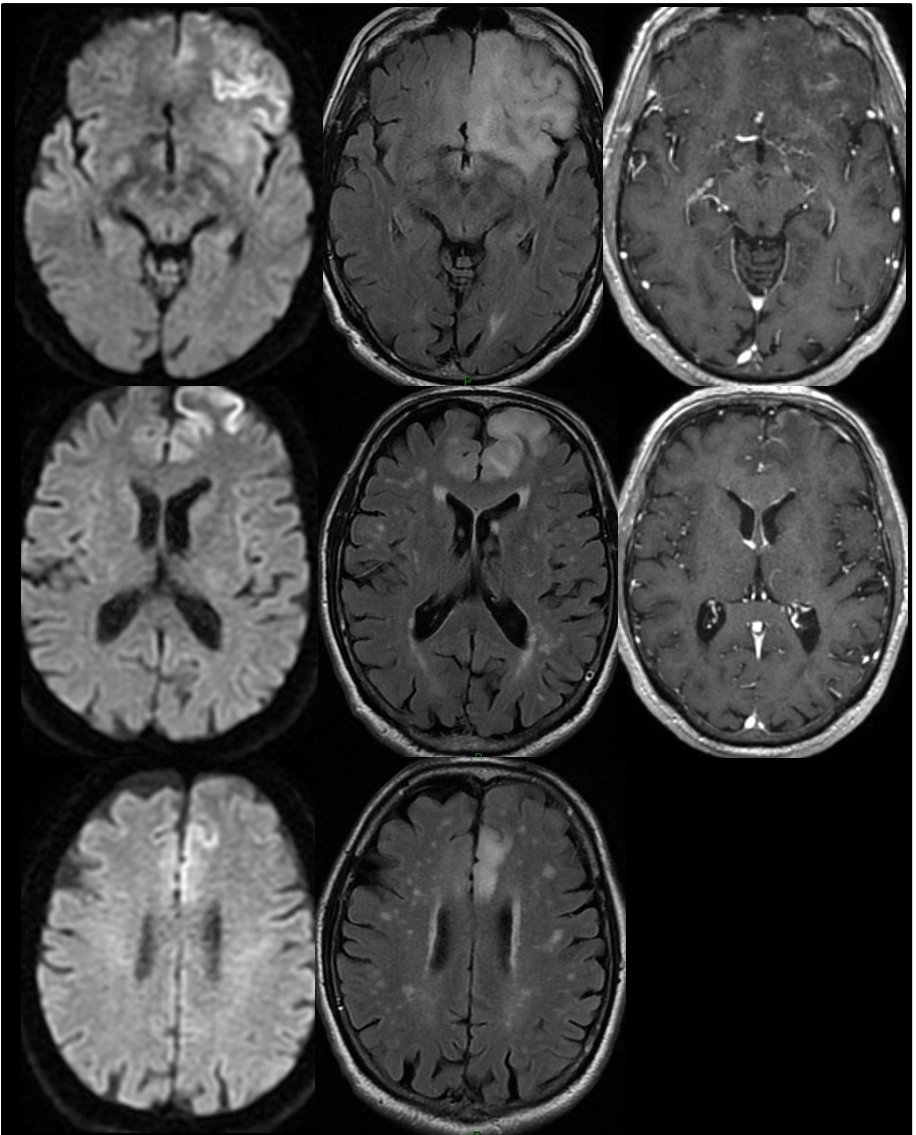
DWI: hypercellularité

DWI: hypercellularité
+ Nécrose gélatineuse

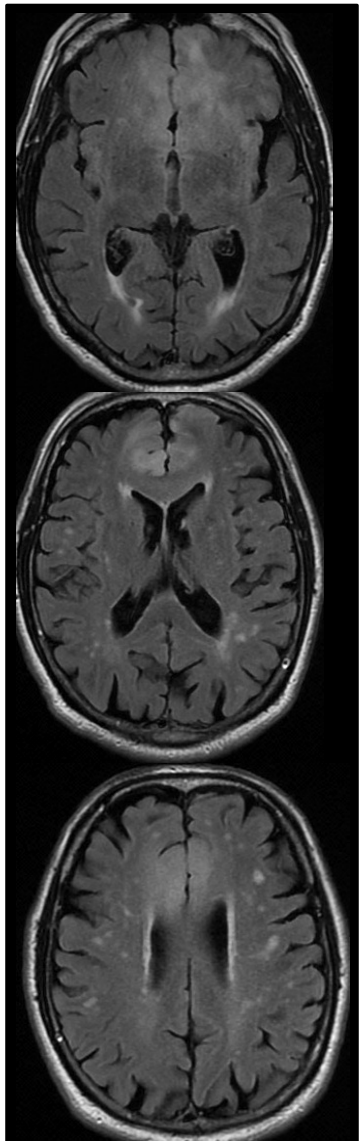
= plus hyperintense que
L'hypersignal
d'hypercellularité

Etat de mal

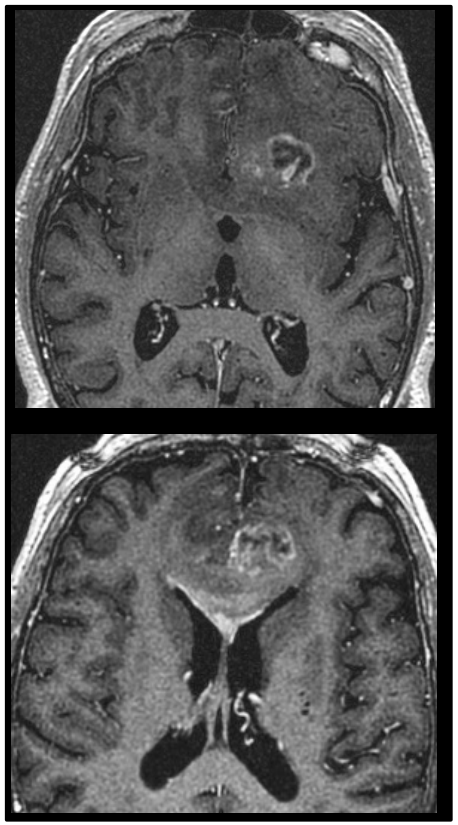
Crise



2 mois

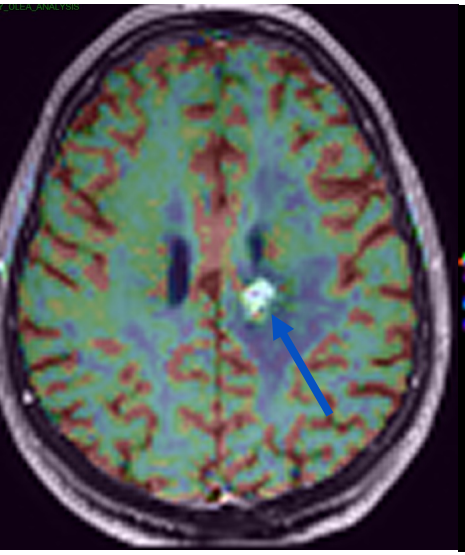


1 mois

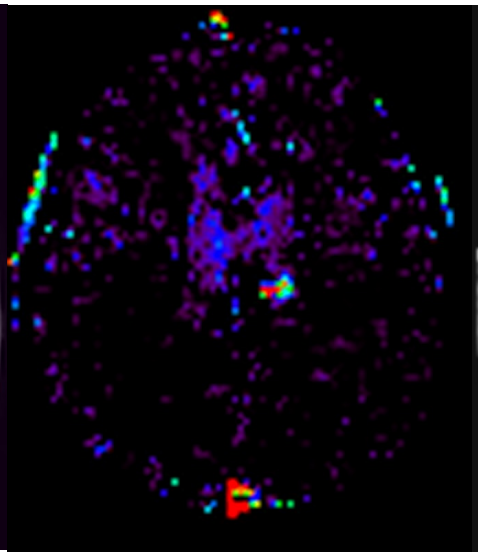


Radionécrose

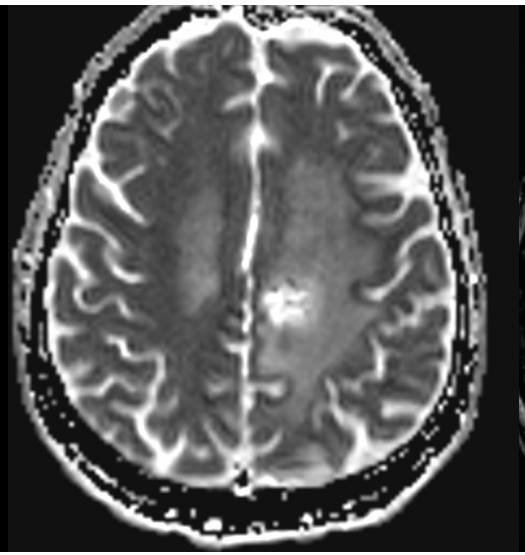
Glioblastome : Nouvelle lésion réhaussée



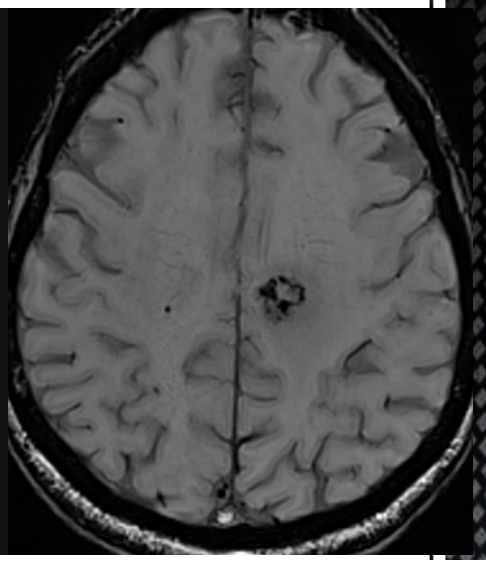
rCBV
= pas d'hyperperfusion



K2 = perméabilité
= leakage



ADC ↑↑
= nécrose
≠ masse tumorale



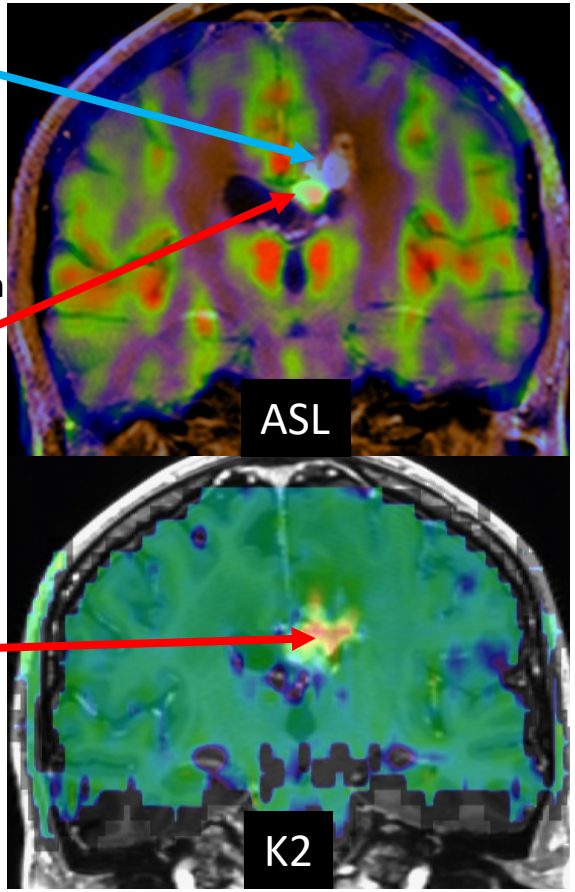
Micro-hémorragie
= fréquent dans radionécrose

Aspects intriqués

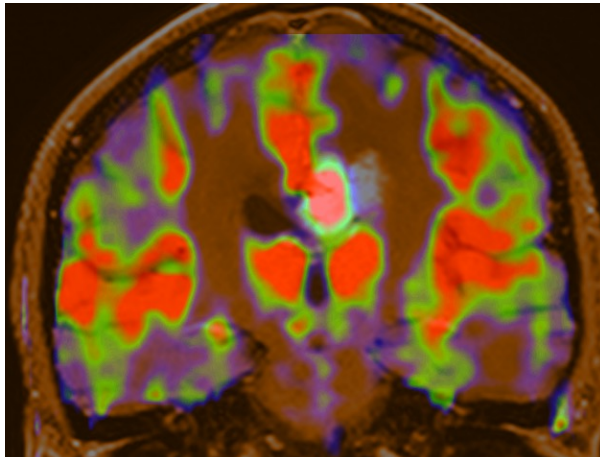
No hyperperfusion = radionécrose

Hyperperfusion = récidive

leakage



2 mois



= Progression
ASL perfusion

- Ne pas oublier les **séquences conventionnelles et diffusion pour le diagnostic positif de lésion tumorale ou pseudotumorale**

- **Multimodalité :** caractérisation lésions, évolutivité

  Attention à la zone d'analyse
- Quelle que soit la lésion : retentissement (hydrocéphalie, engagement),vx
  - Pseudotumeurs : penser T2
- Suivi, connaître les traitements et leur action. Aspects intriqués