

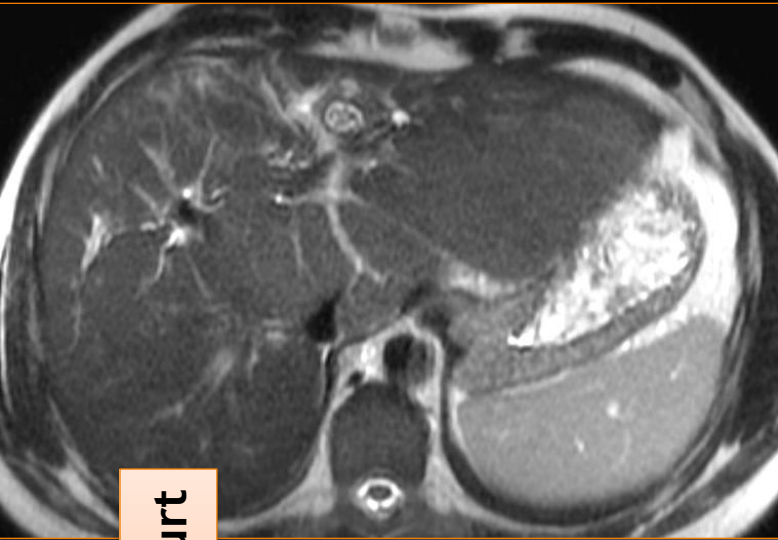
ED Voies Biliaires

Ateliers IRM novembre 2012

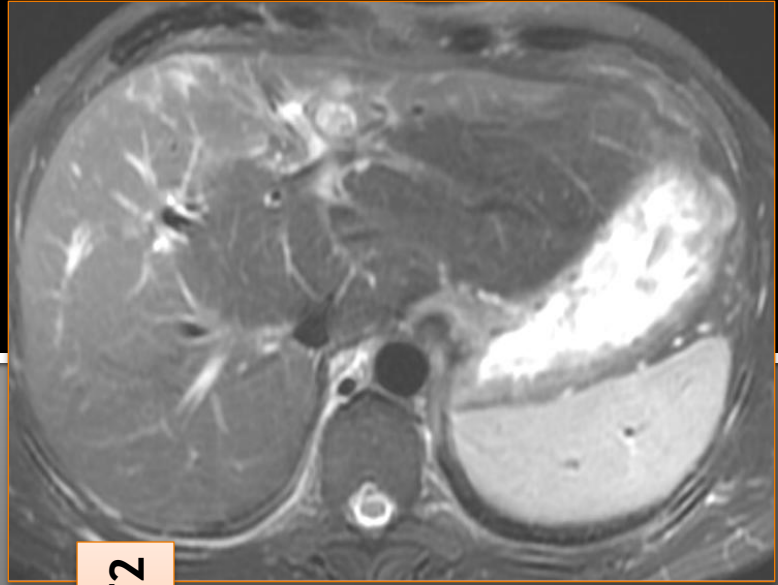
LOMBARD Vincent



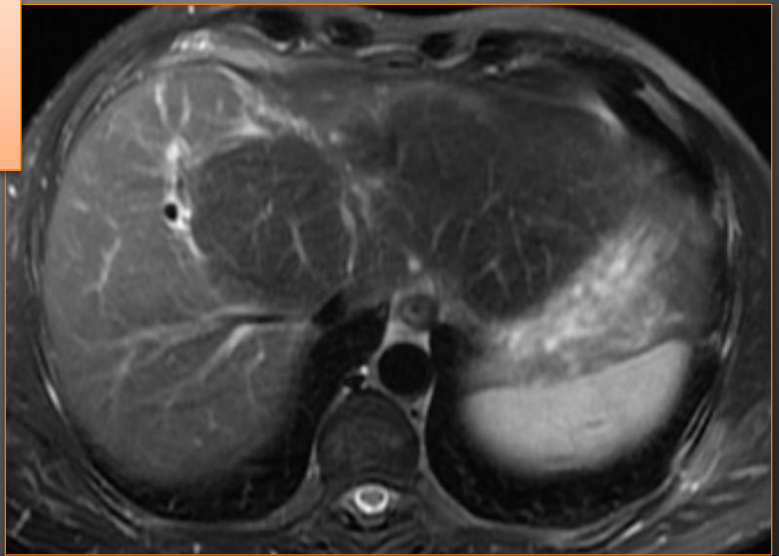
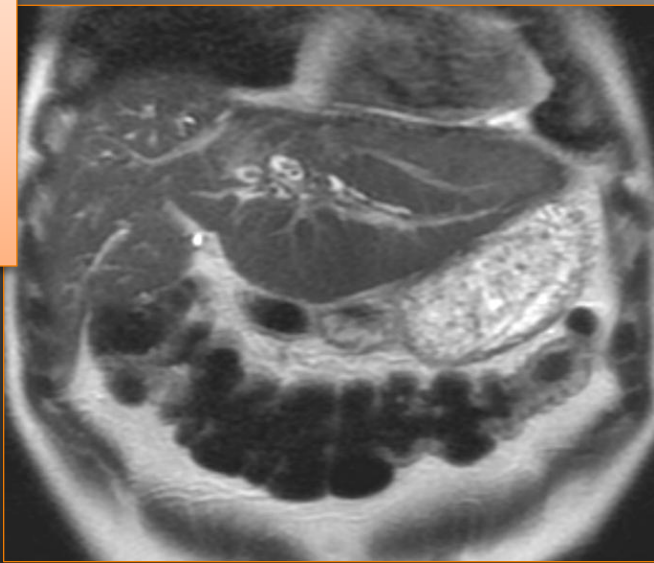
Homme 40 ans Ictère ...



SSFSE Te court



Fr FSE T2

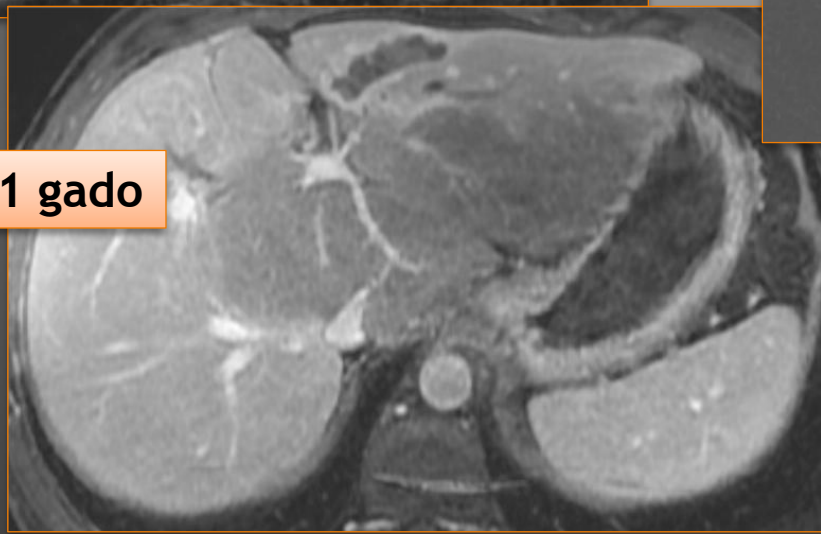




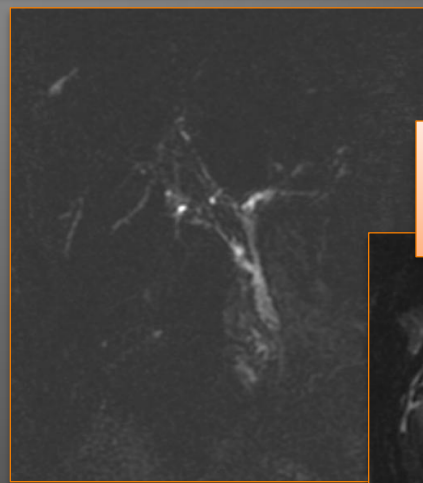
In Phase / Out of Phase



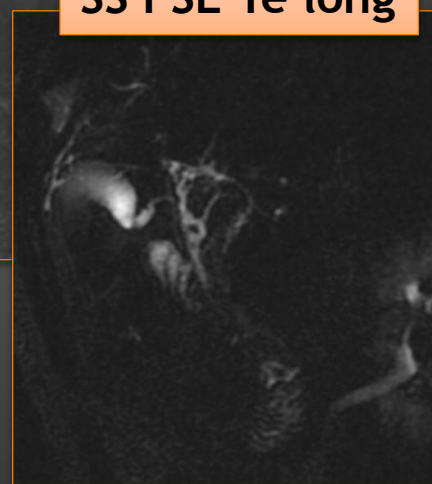
Axiales T1 gado



Axiales SS FSE Te long



Radiares
SS FSE Te long



Cholangite Sclérosante Primitive

Cholangite sclérosante primitive

Maladie inflammatoire des voies biliaires d'origine inconnue:
Inflammation, fibrose et destruction progressive des voies biliaires intra et extra hépatique évoluant vers la cirrhose biliaire

I = 3 à 10/100 000 habitants

H > F

entre 3ème et 4ème décennie,

50 à 75% d'association avec une colite ulcéreuse ou Crohn

Mécanisme immunitaire + terrains génétiquement prédisposés

Diagnostic: Anapath +++

CholangioIRM (ou CholangioGraphie rétrograde): sténoses irrégulières et multifocales, dilatation modérée

Fines ulcérations pariétales et pseudo-diverticules

Clinique: fièvre au long cours, dl abdo, prurit, coliques hépatiques, décompensation oedémato-ascitique...

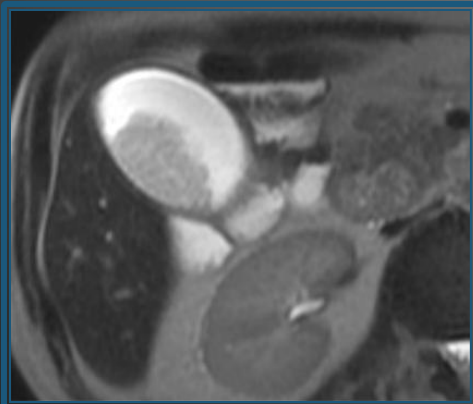
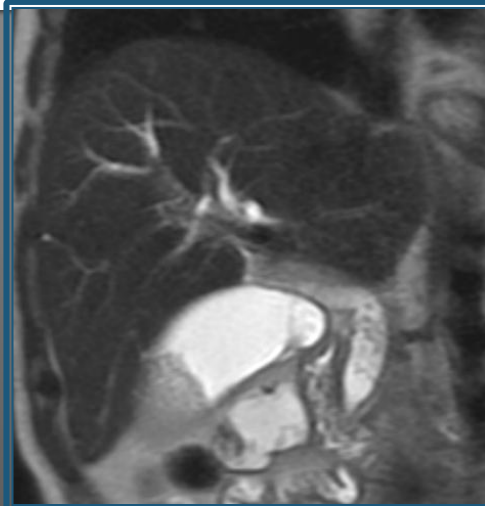
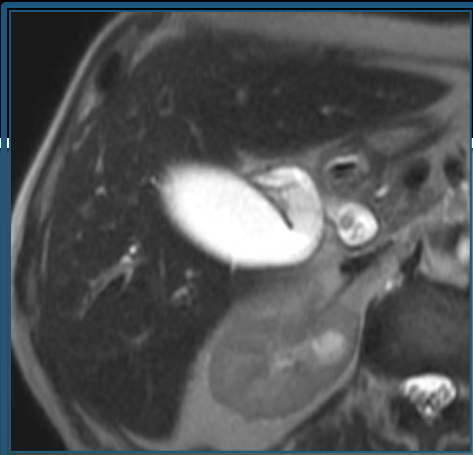
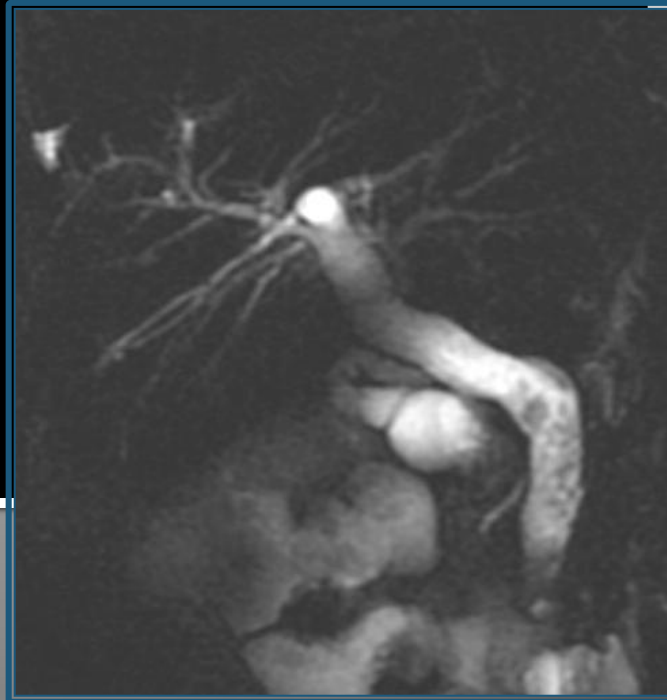
Bio: . cholestase, ictère (BC), cytolyse.
. pANCA (idem RCH..)

Pronostic: . cirrhose et ses complications.
. 10 à 15% de cholangiok (tabac +++)
(et Kc colo-rectal quand association avec RCH)
. médiane de survie entre 10 et 15 ans

TTT: médical (symptomatique, des complications cirrhotiques, de la cholestase..)

Dilatation endoscopique, prothèse endo biliaire
transplantation hépatique (mais récurrence dans 10 à 20% des cas.)

Homme 45 ans
Fievre + ictere
VIH +

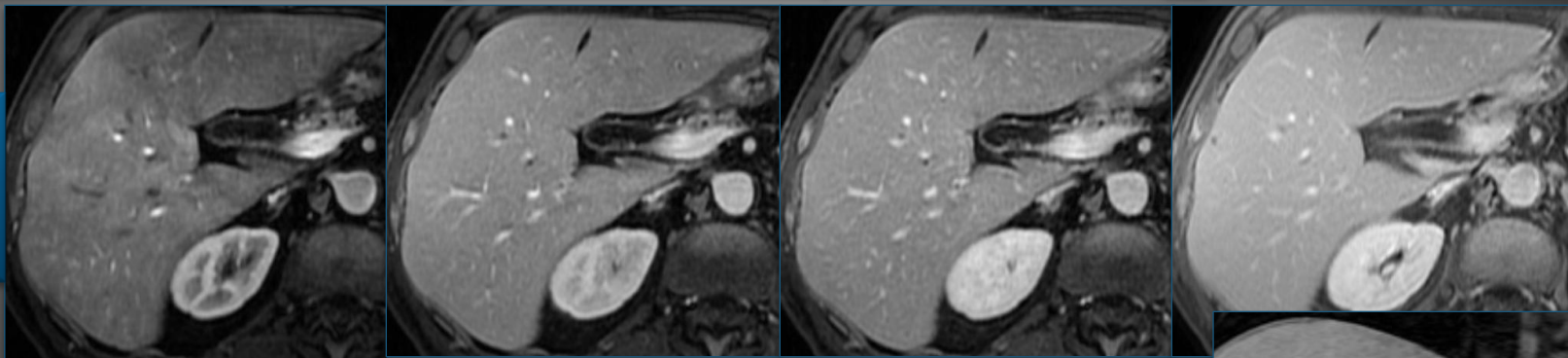


Imagerie T2





Dynamiques Gado



Cryptosporidiose hépatique

Cryptosporidiose

L'atteinte biliaire est observée chez environ 15% des patients sidéens. L'imagerie met en évidence une dilatation des voies biliaires, avec un épaissement pariétal et parfois un aspect de cholangite sclérosante; un épaissement de la paroi vésiculaire; une possible sténose papillaire.

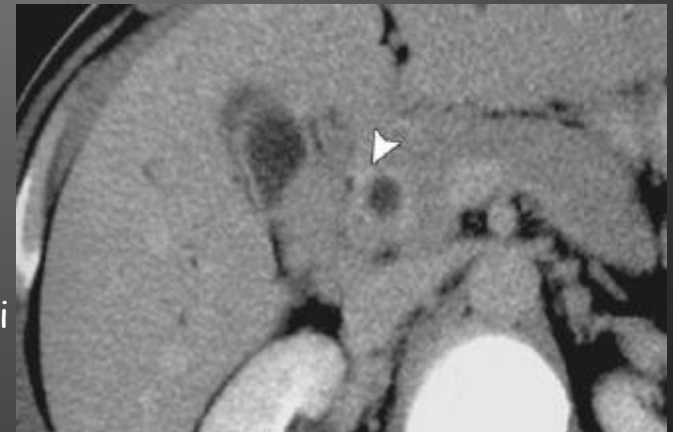
Le parasite peut être retrouvé au sein des voies biliaires et de la vésicule, mais dans la plupart des cas le diagnostic est présomptif, fondé sur l'association anomalies en imagerie de l'arbre biliaires et présence du parasite dans le tractus intestinal ou au niveau de l'ampoule de Vater.

Rarement révélatrice : $CD4 < 100/mm^3$

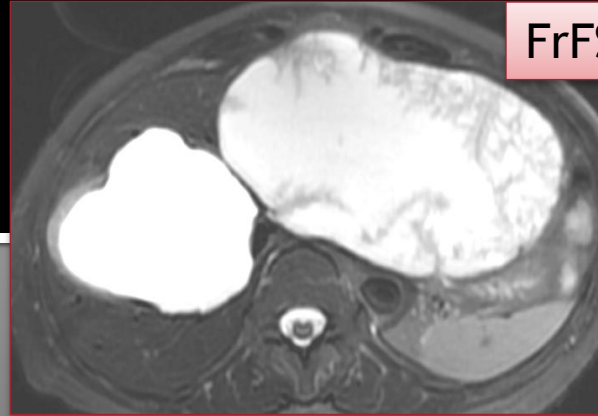
CMV > Cryptosporidium parvum > Candida albicans

HIV et pathologies biliaires :

Calculs, cholécystite aiguë, sténose papillaire, sarcome de Kaposi

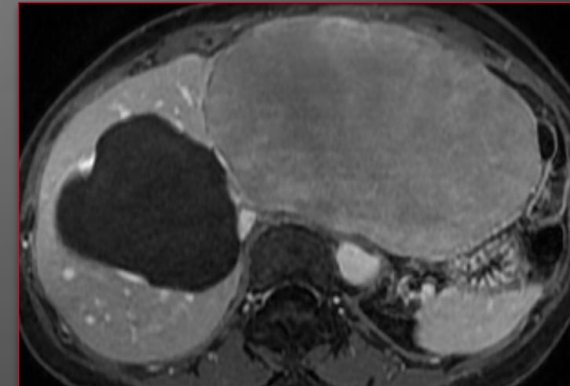
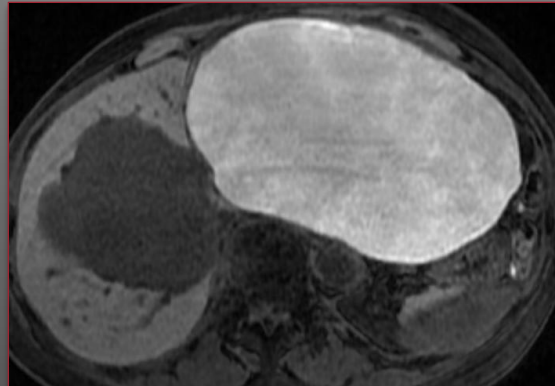


Femme 35 ans
Douleurs abdominales brutales
Masse épigastrique palpable



FrFSE T2

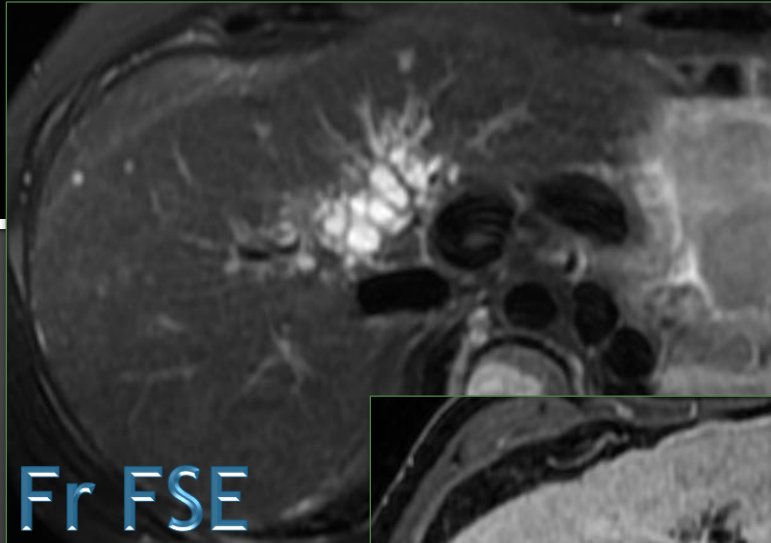
Scanner sans et avec injection



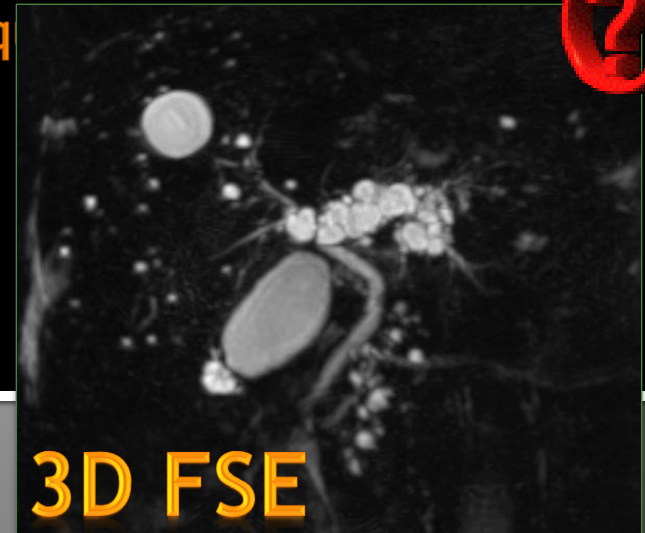
T1 sans et avec gado

KYSTE BILIAIRE HÉMORRAGIQUE

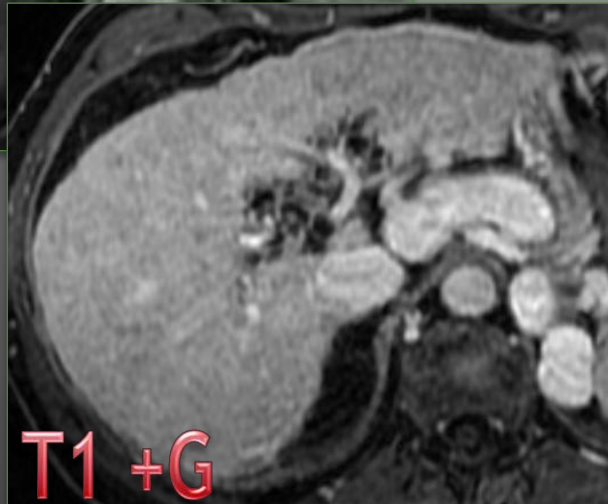
Homme 72 ans
Cirrhotique
Dilatation des voies biliaires intrahépatiques



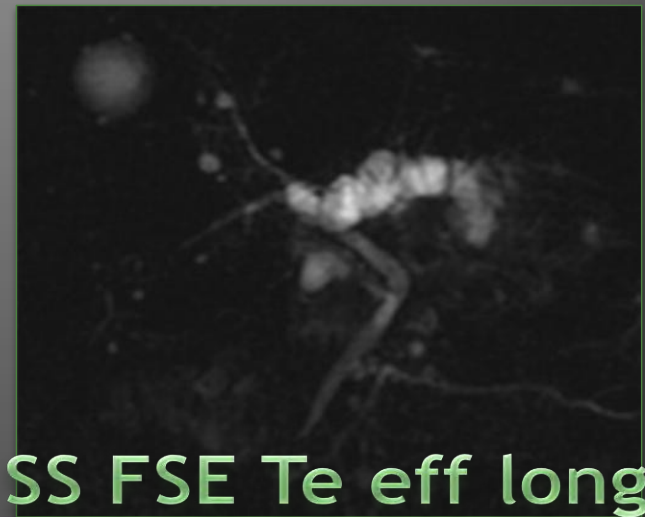
Fr FSE



3D FSE



T1 +G



SS FSE Te eff long

Disposition péri portale
En chapelet
Non communiquant

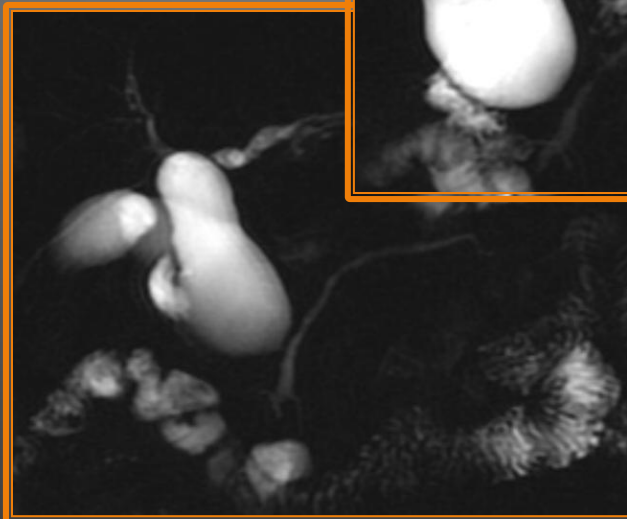
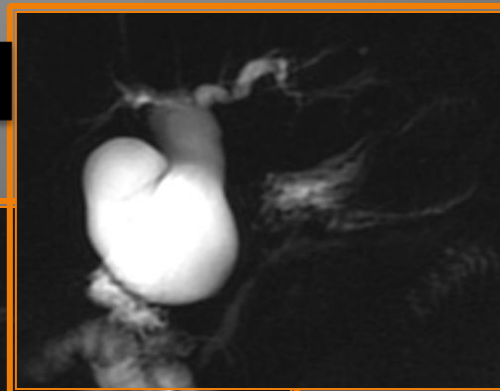
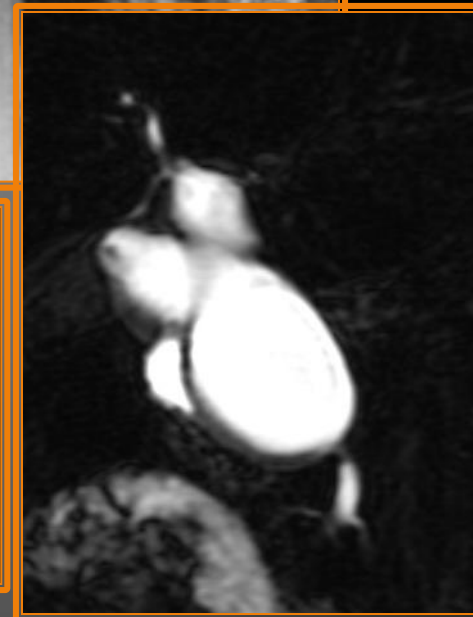
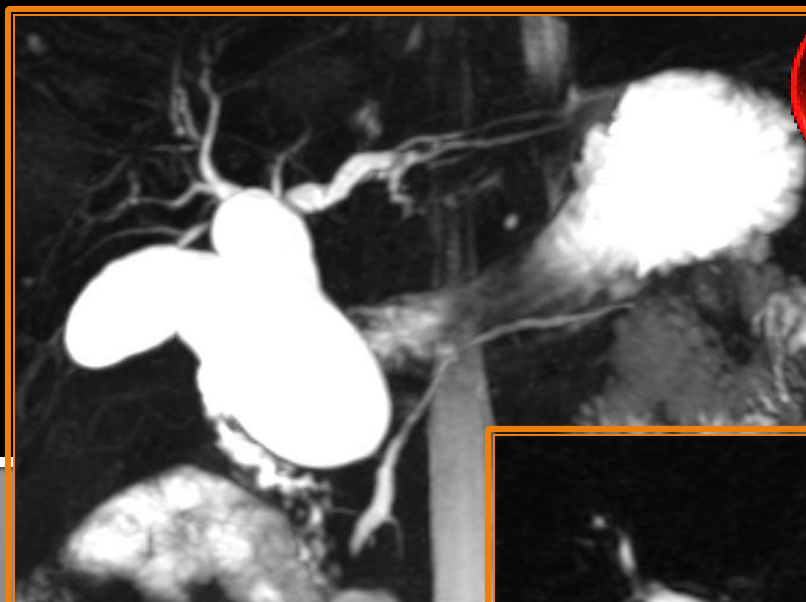
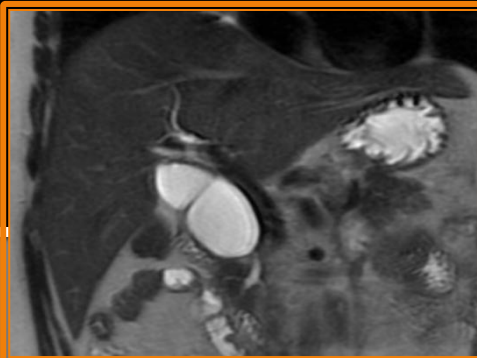
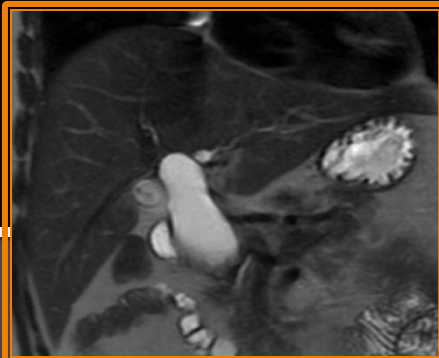
KYSTES PÉRI BILIAIRES

Kystes péri biliaires

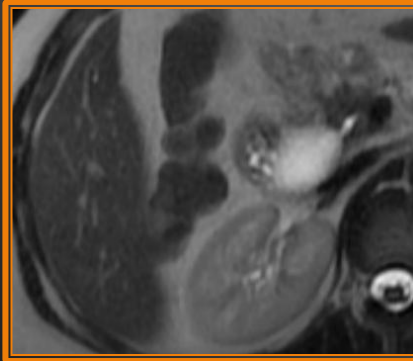
- Terrain : hépatopathie, **cirrhose +++**
- Diagnostics différentiels
 - dilatation segmentaire des VBH sur cholangiocarcinome +++
 - Oedème périportal
 - **Complexes de Von Meyenburg**
 - **Maladie de Caroli**
- Kystes péri biliaires
 - Aspect en chapelet
 - De part et d'autre de la veine porte
 - **Non communiquant avec les voies biliaires (≠ maladie de Caroli)**

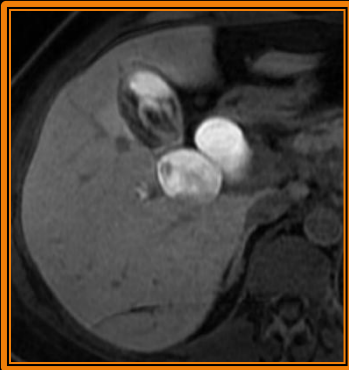
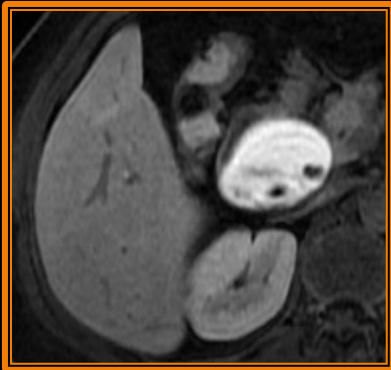
Jeune femme 39 ans pesanteur épigastrique Dyspepsie

Cas n° 5

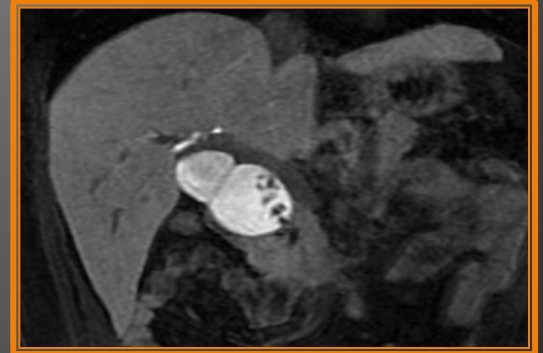
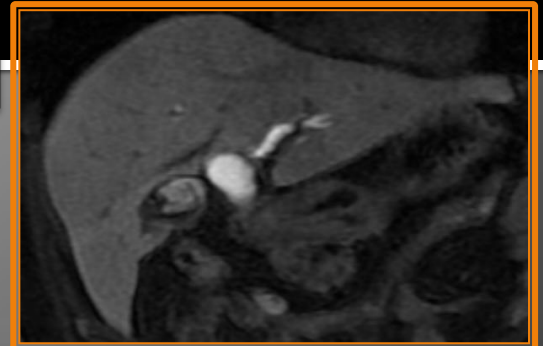


Imagerie T2

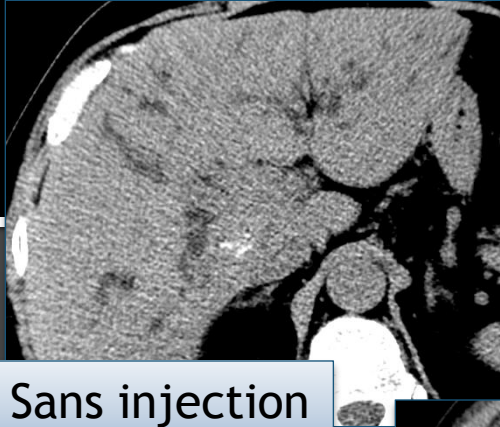




Kyste du cholédoque avec canal commun long

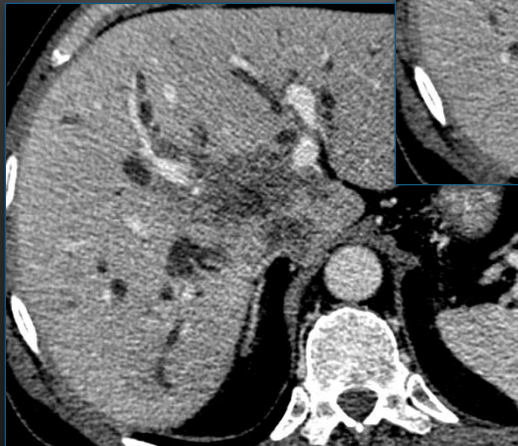
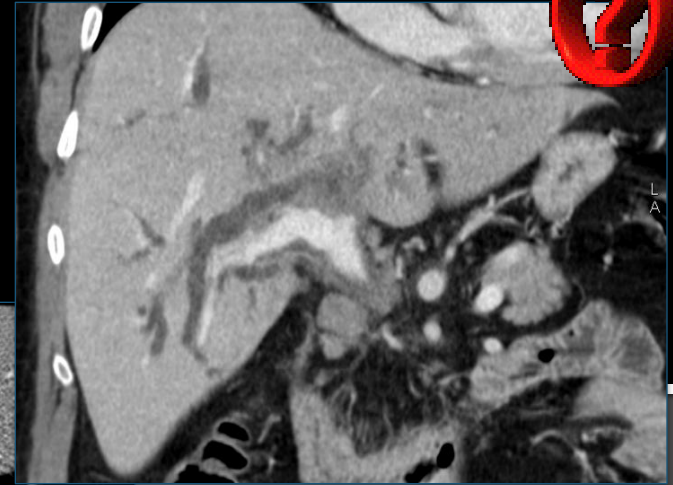


Homme 45 ans
Ictere
Douleurs abdominales



Sans injection

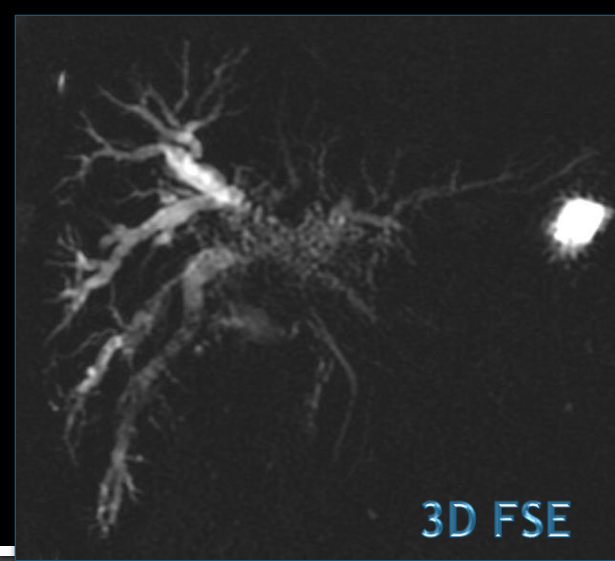
Temps portal



Lésion tumorale du hile
hépatique, compression de la
convergence.

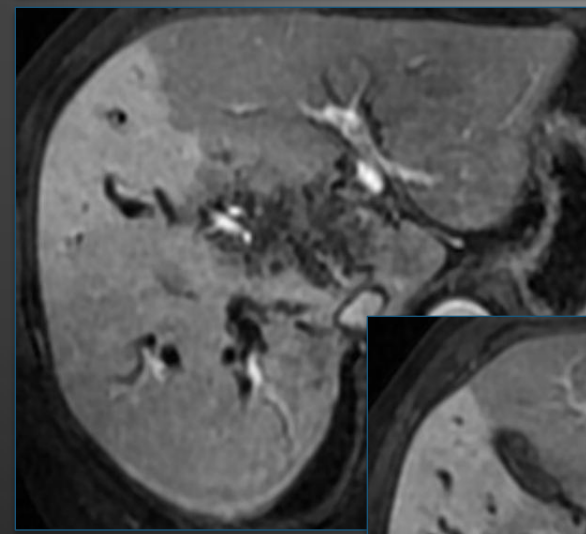
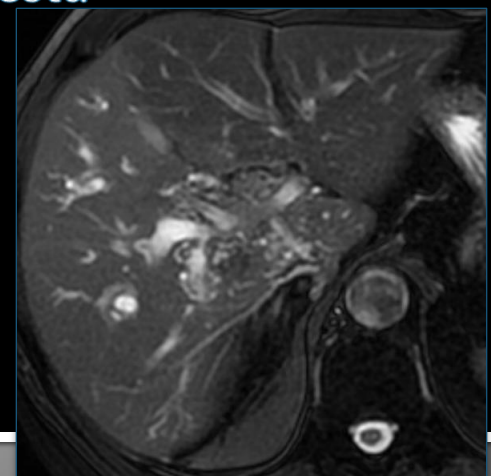
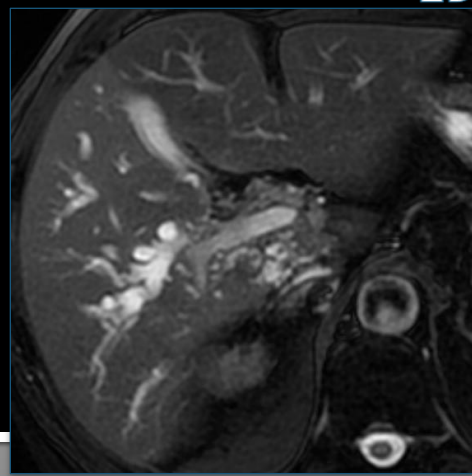
Cholangiocarcinome ?

→ IRM

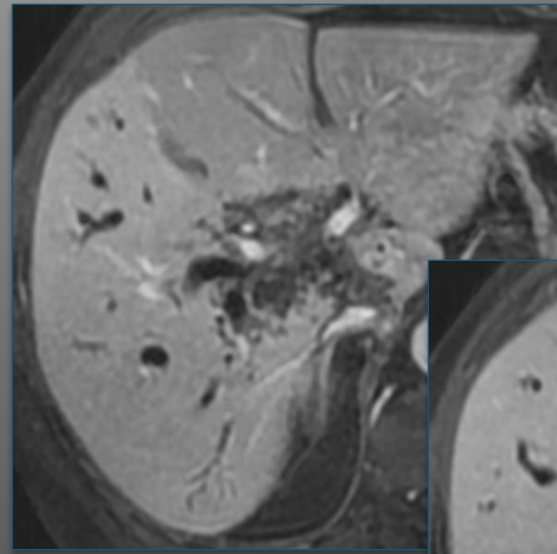


3D FSE

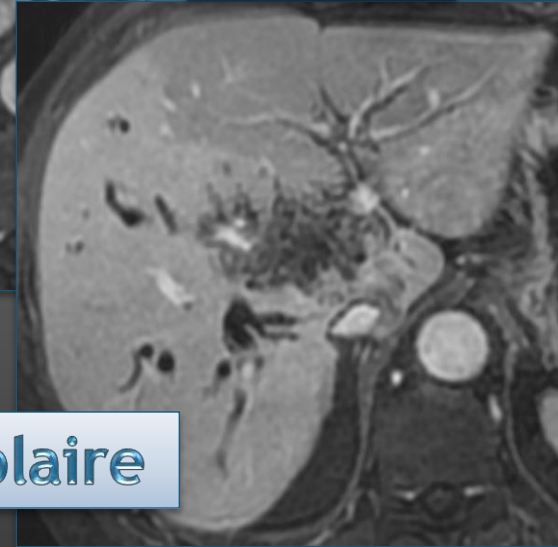
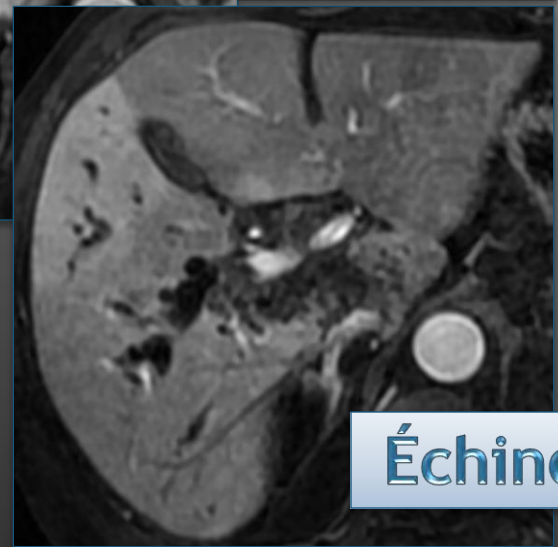
2D Fiesta



T1 PRÉCOCE



T1 TARDIF

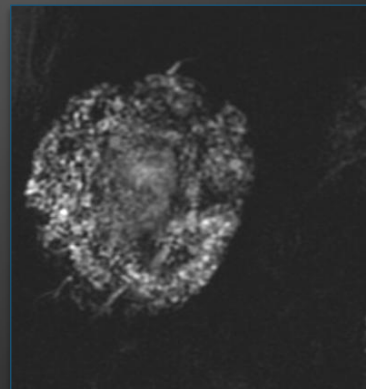


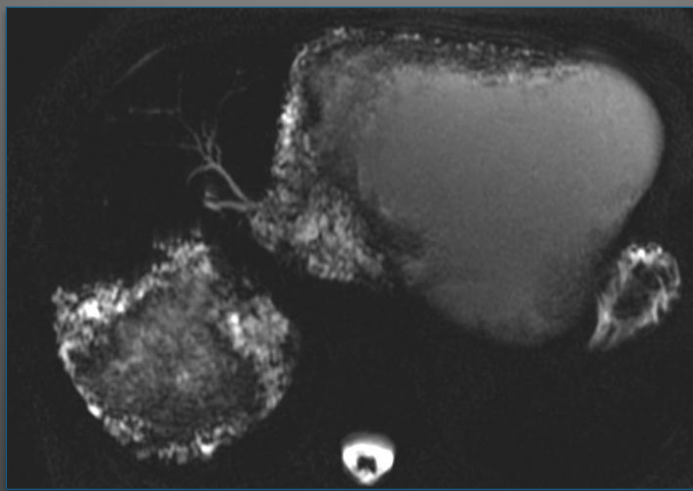
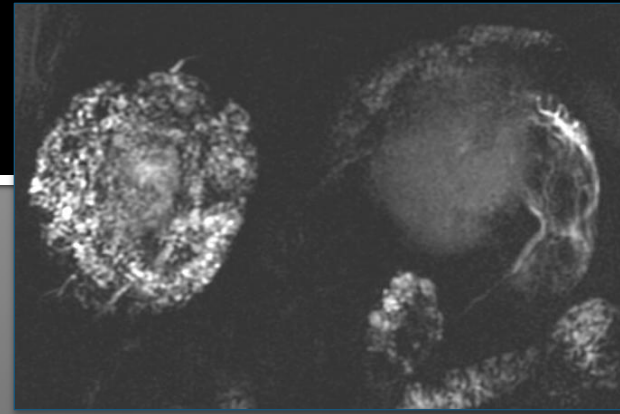
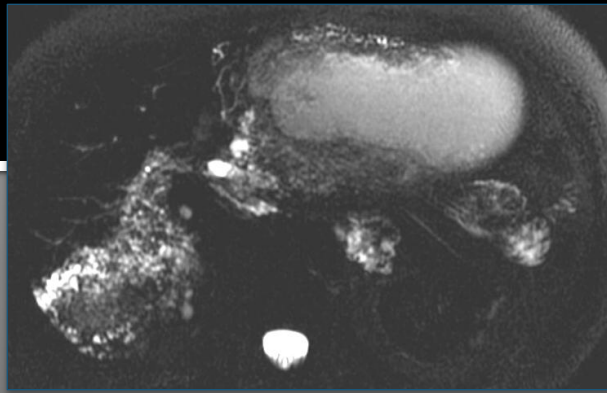
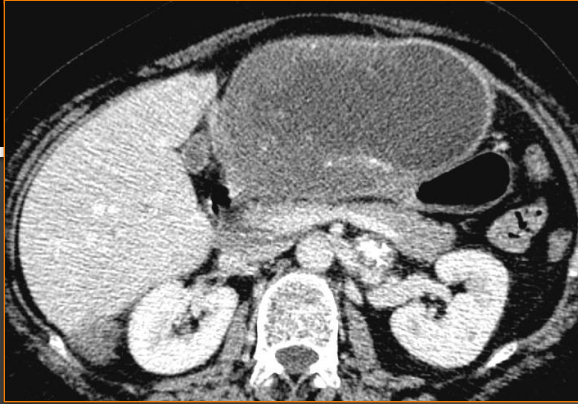
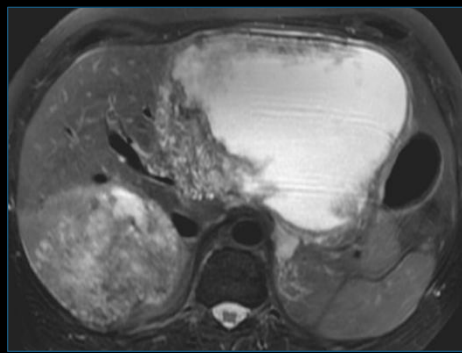
Échinococcose alvéolaire

Échinococcose alvéolaire

Scanner : masse hépatique, souvent unique, généralement de grande taille, globalement hypodense par rapport au parenchyme normal, de contours irréguliers. Les calcifications sont fréquentes (90%)

IRM : met en évidence la structure fibreuse de la lésion par un hyposignal en pondération T1 et T2. Elle montre les vésicules parasitaires en hypersignal T2 qui forment une masse multiloculaire, constituée par l'adossement de multiples vésicules parasitaires infracentimétriques, réalisant un aspect en « rayon de miel » ou en « mie de pain », pathognomonique des lésions d'échinococcose alvéolaire.





Échinococcose
alvéolaire, double
localisation hépatique
et rétro péritonéale

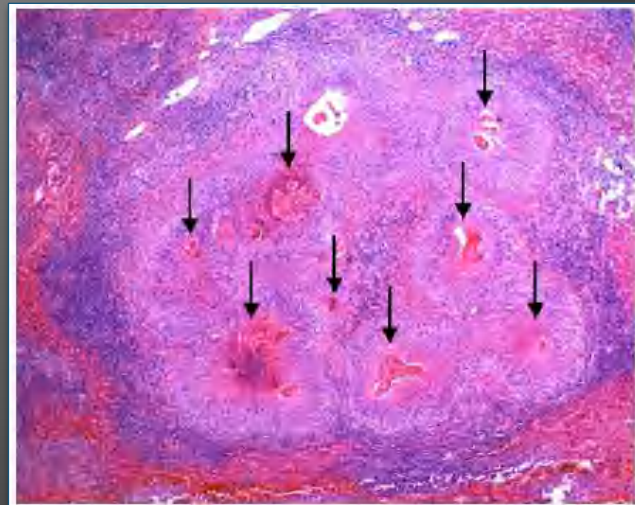
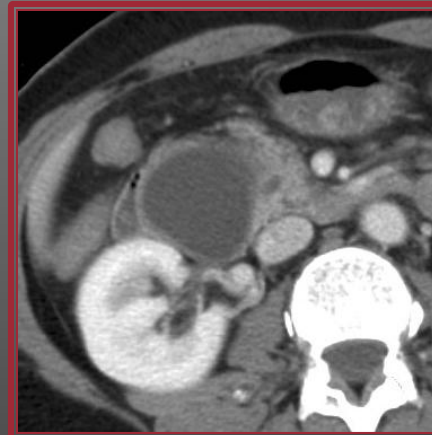
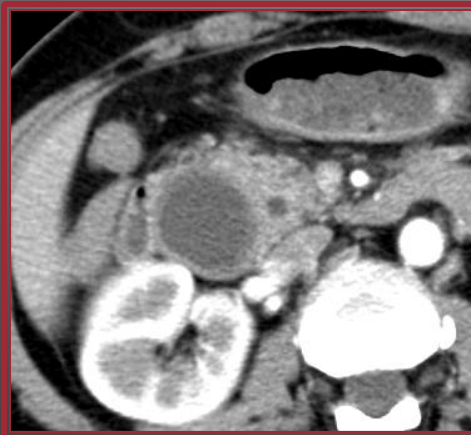
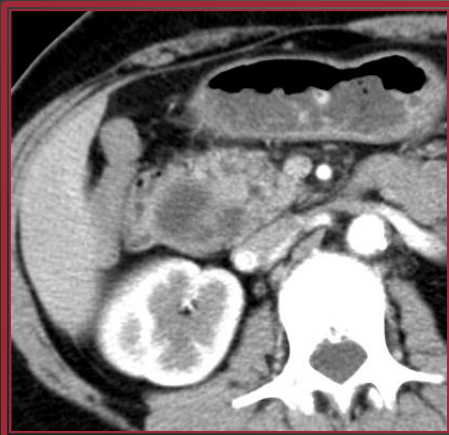
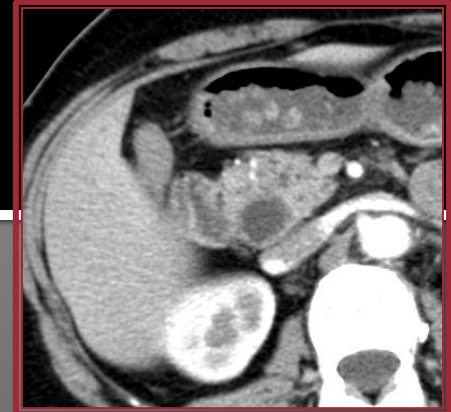
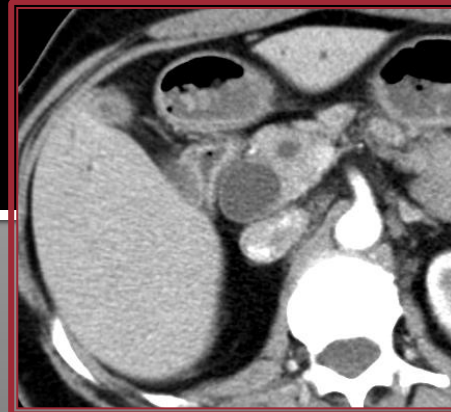
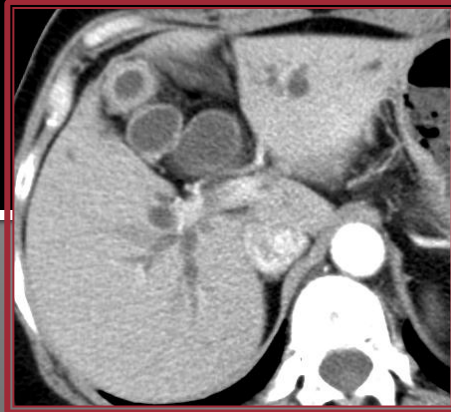
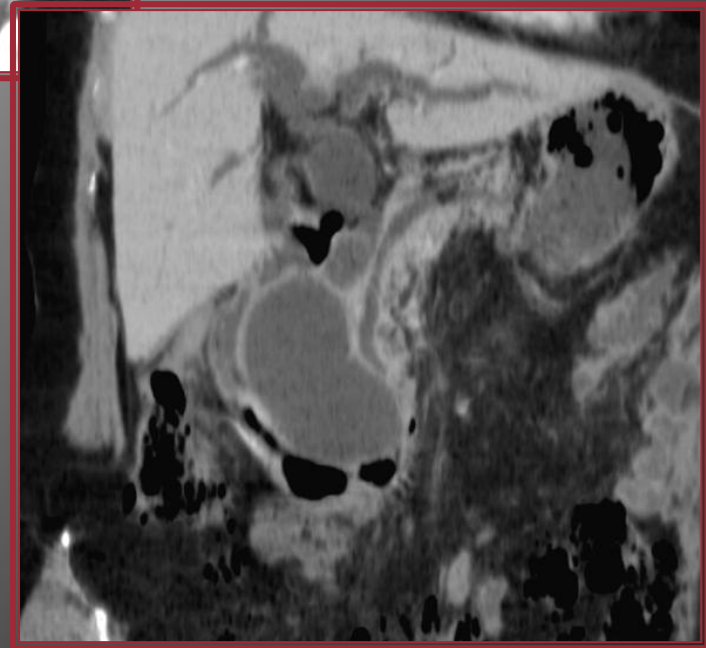
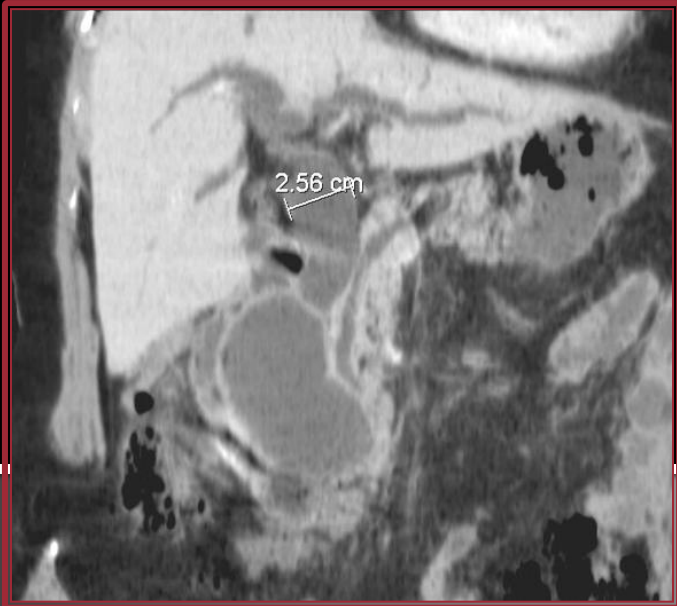


Fig. 16. Microphotograph of the liver infected with *E. multilocularis* showing multiple clustered lesions with central necrosis surrounded by a thin laminated layer (arrows) resembling alveoli or honeycomb.

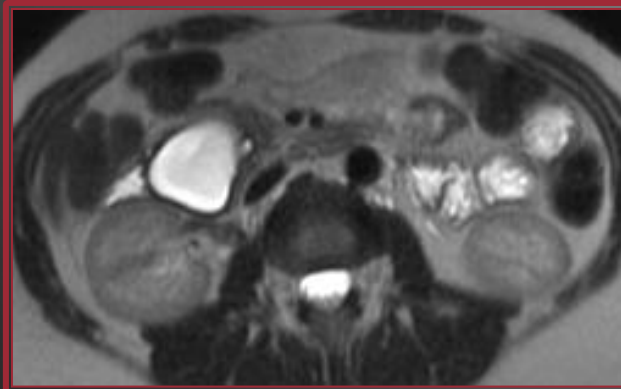
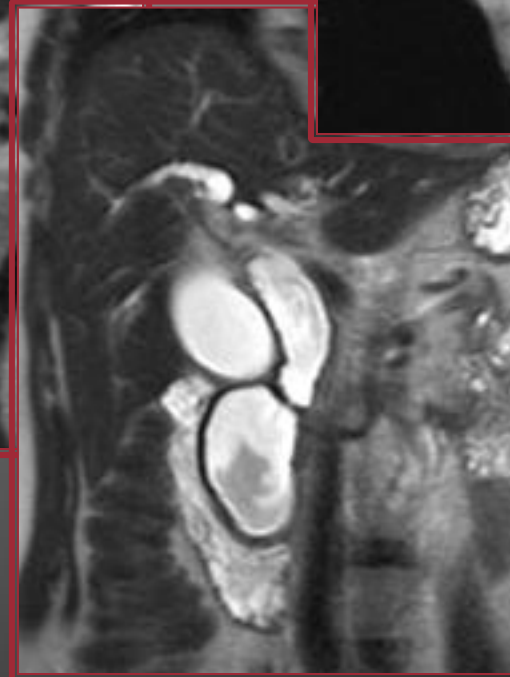
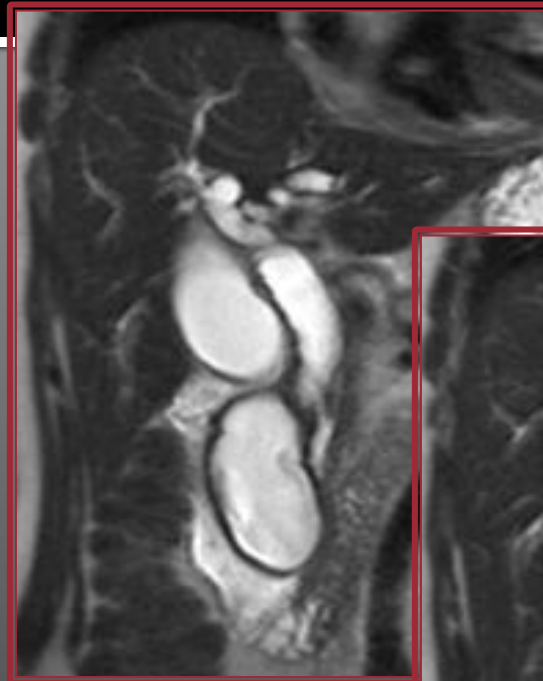
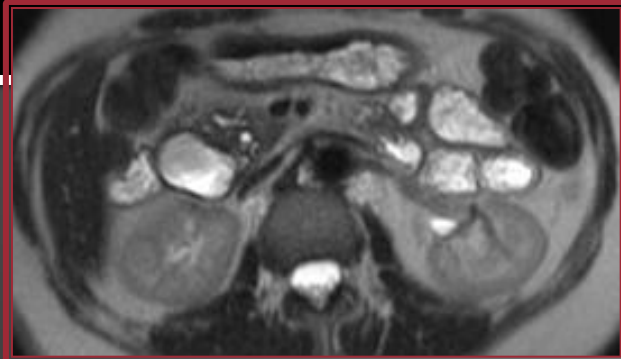
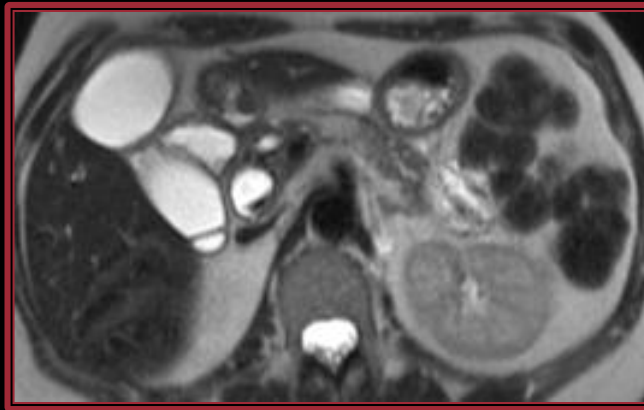
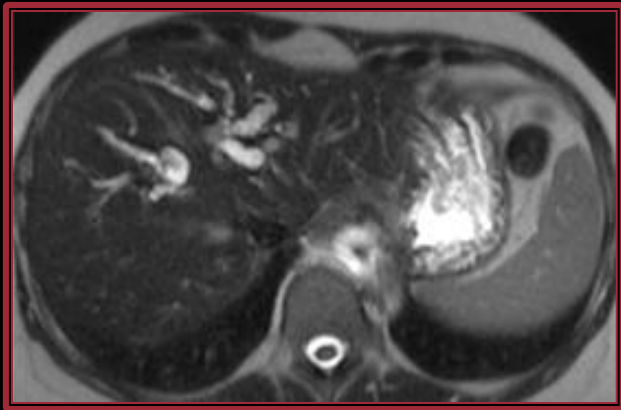
Femme 54 ans
Bilan avant anti TNF alpha
Notion de pseudo kyste pancréatique





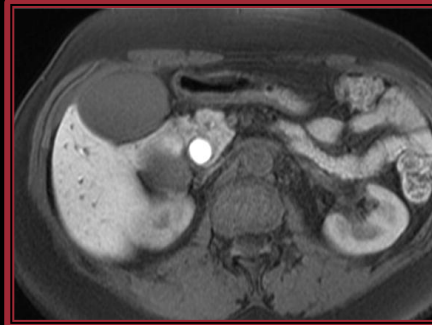
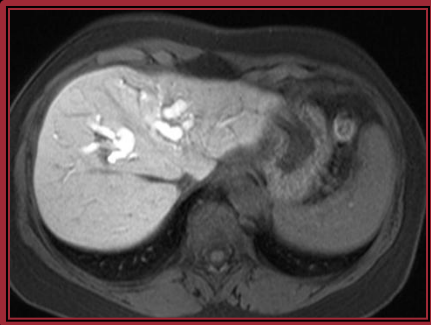
MPR

→ IRM



IMAGERIE T2

MULTIHANCE



**Cholédococèle
kyste du cholédoque**



Kyste du cholédoque

Définition:

Ectasie congénitale du cholédoque +/- voies biliaires

Dysplasie pré-maligne : risque de cholangiocarcinome

Etiologie:

Anomalie de la jonction entre le cholédoque et le wirsung: long canal commun (longueur normale= 0.2-1 cm) Formes I et IV

Problème de pression trop élevée dans le wirsung et défaut du sphincter: reflux enzymatique au niveau du cholédoque: altération épithéliale, faiblesse et dilatation pariétale

Complications:

lithiase, cholangite, pancréatite

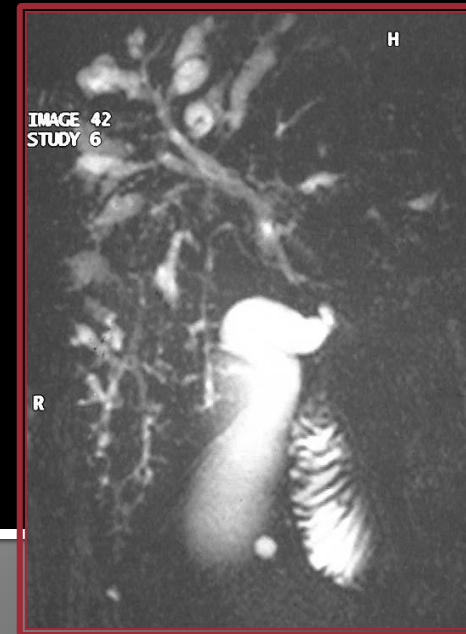
rupture, péritonite biliaire, abcès, hémorragie

dégénérescence maligne: cholangiocarcinome x 20

Traitement:

chirurgie: excision du kyste, hépatectomie selon extension et possibilité, hépatico-jéjunostomie par une anse en Y

Classification de Todani



Type I : ectasie fusiforme du cholédoque

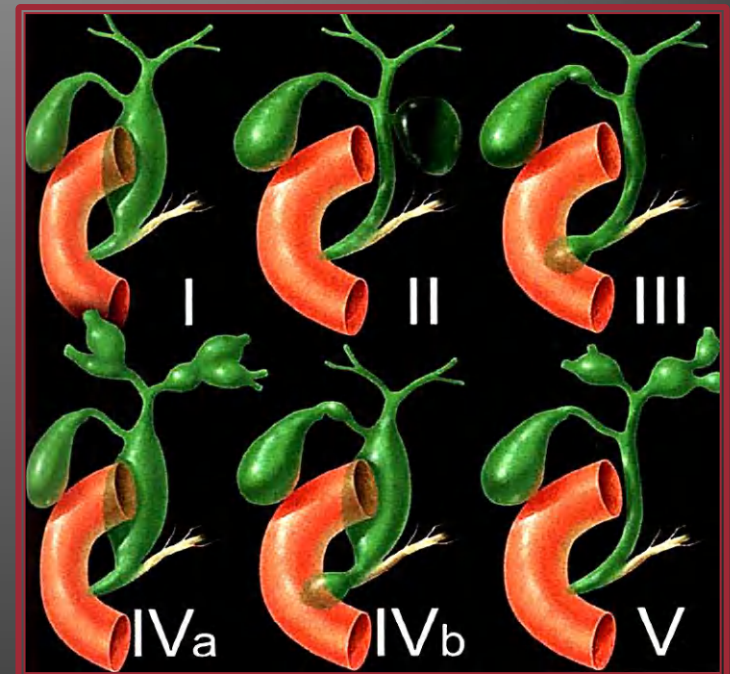
Type II : diverticule cholédocien
sacciforme

Type III : cholédococèle intra-murale
duodénale

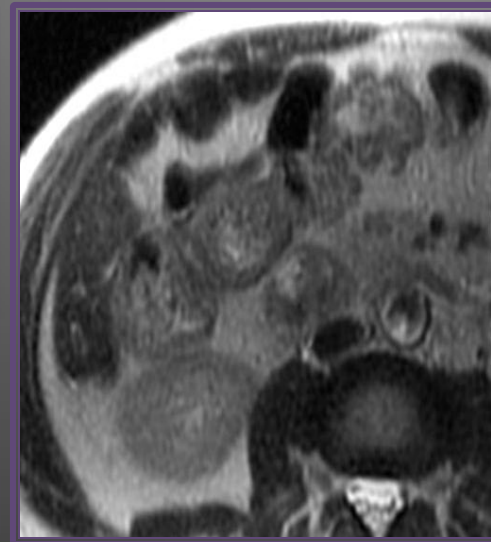
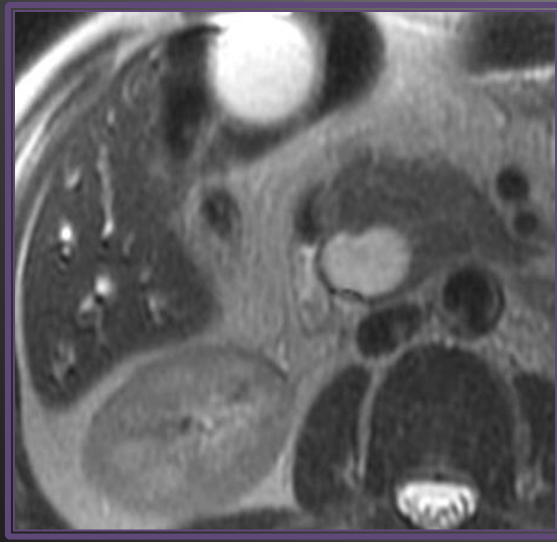
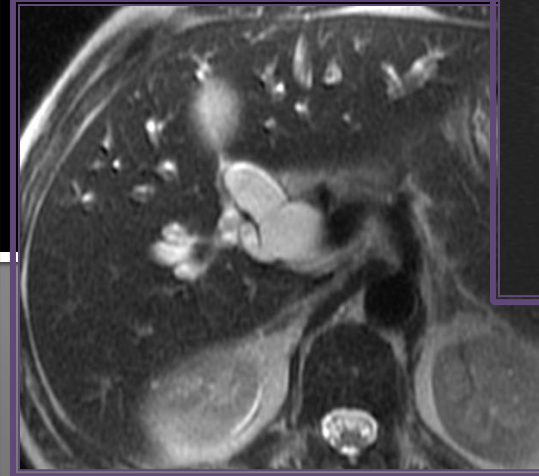
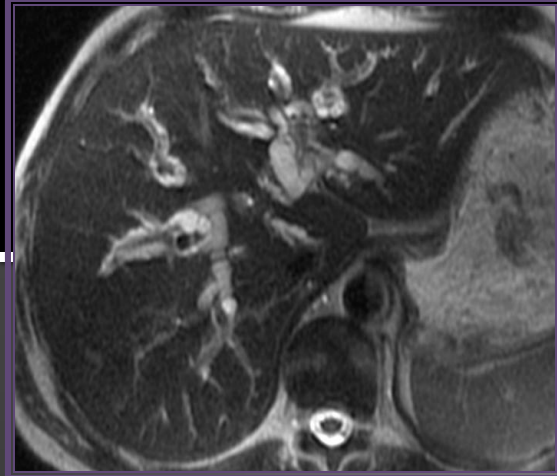
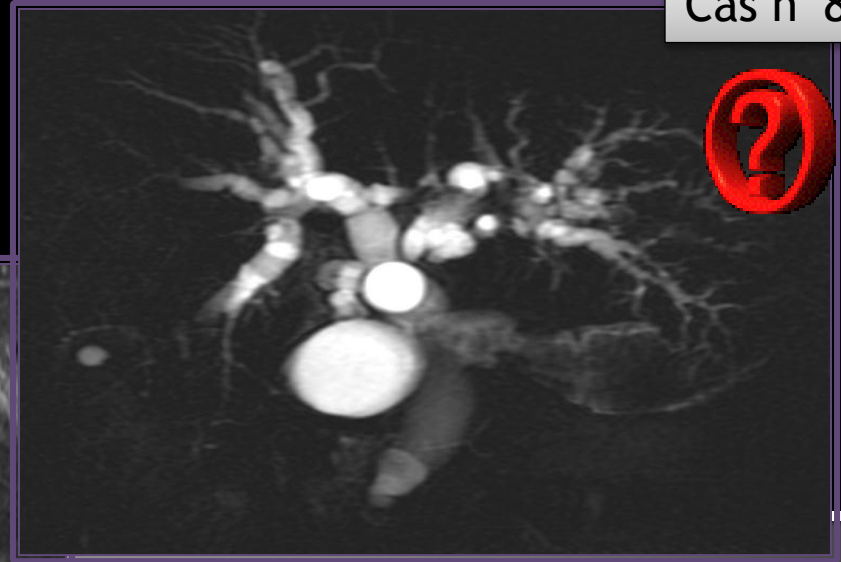
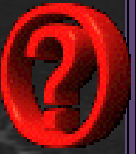
Type IV a : K. cholédoque + ectasies
intra-hépatiques

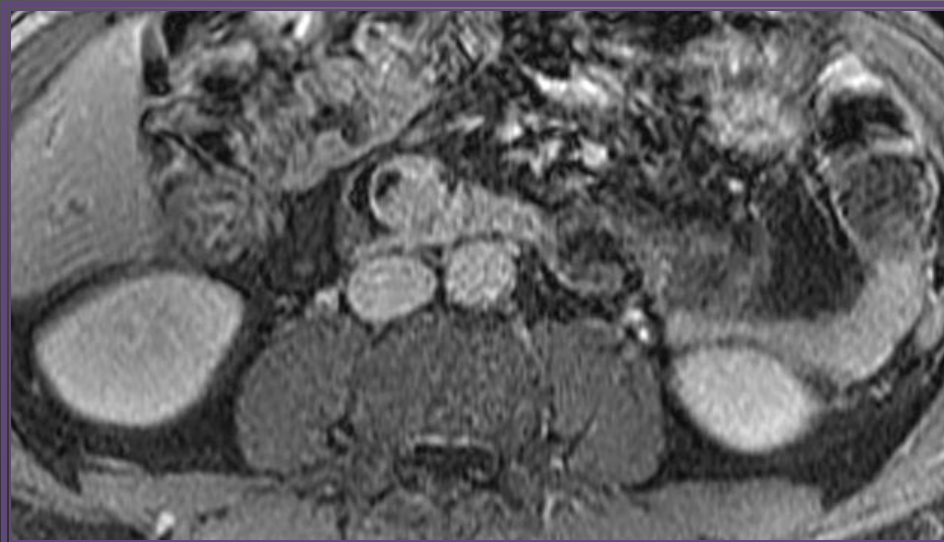
Type IV b : multiples kystes extra-
hépatiques

Type V : Maladie de Caroli



Homme 60 ans Cholestase



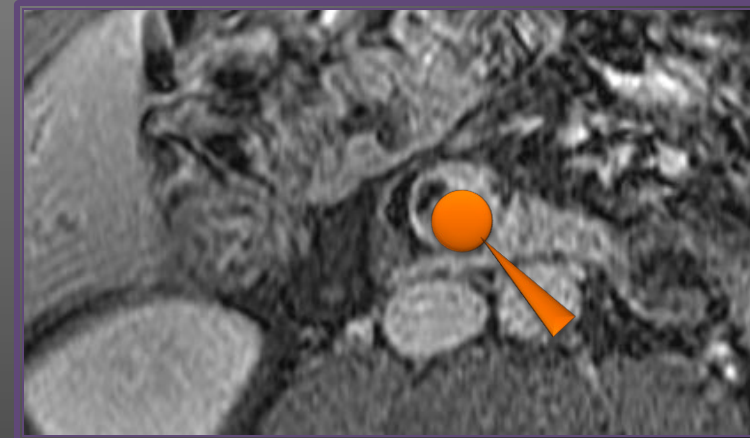


AMPULLOME

AMPULLOME

Adénocarcinome ampullaire, d'origine biliaire, pancréatique ou duodénale

Petite masse de la papille, excentrée.
Sténose irrégulière de la VBP.

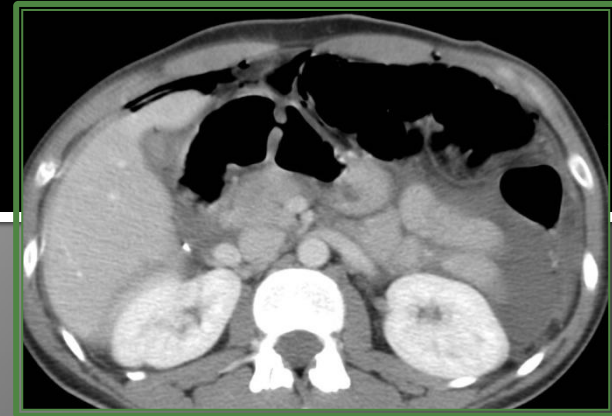
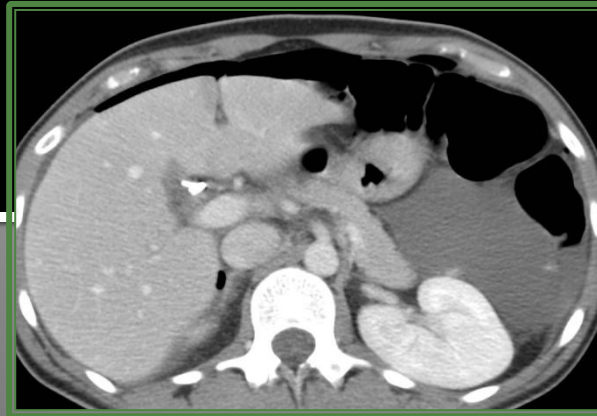


Dilatation de la VBP.
Sténose excentrée
Irrégulière

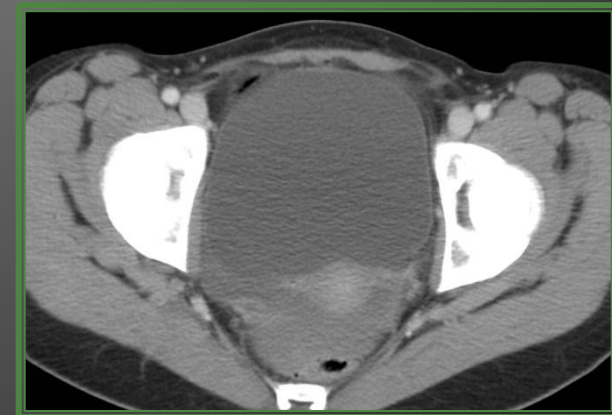
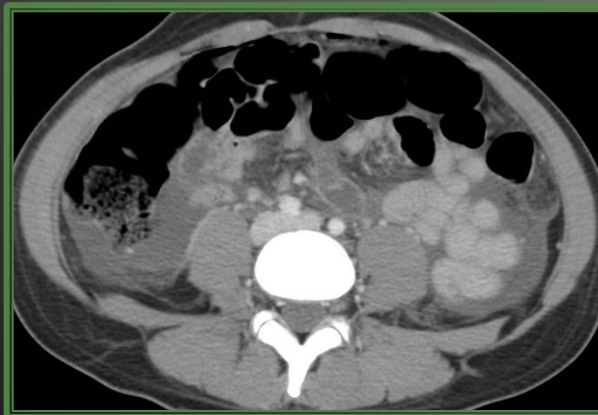
+++ LÉSION MALIGNNE

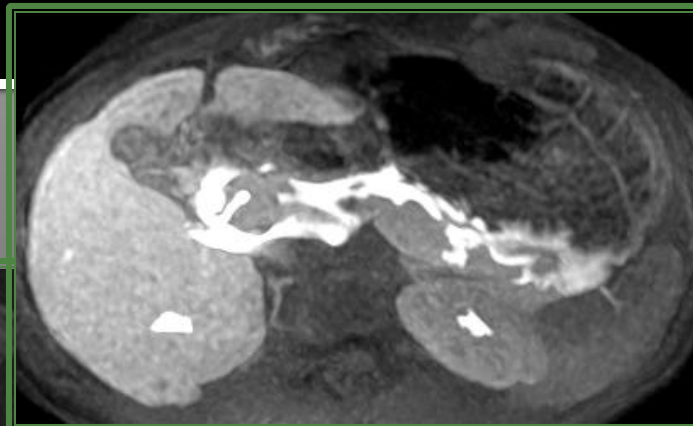
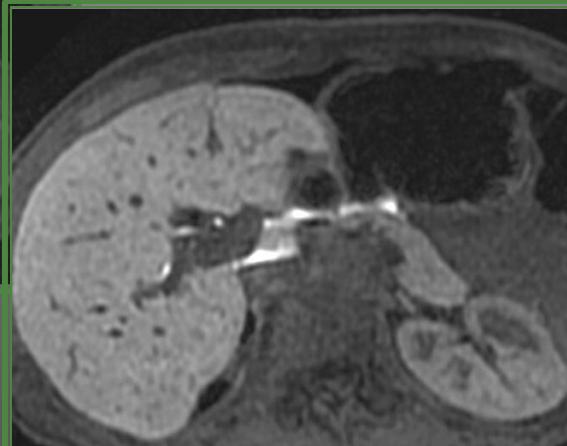
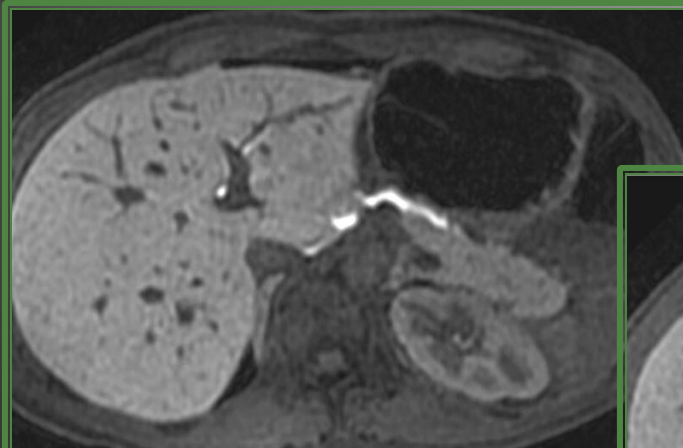
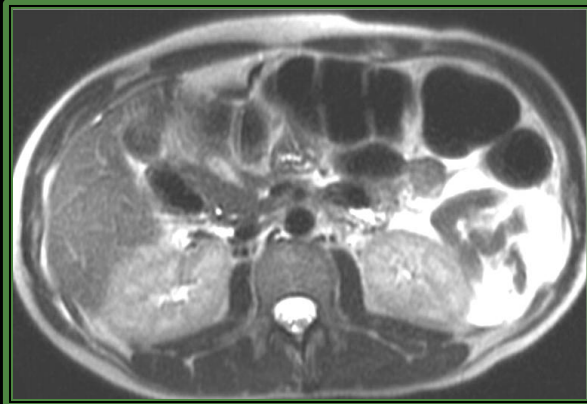
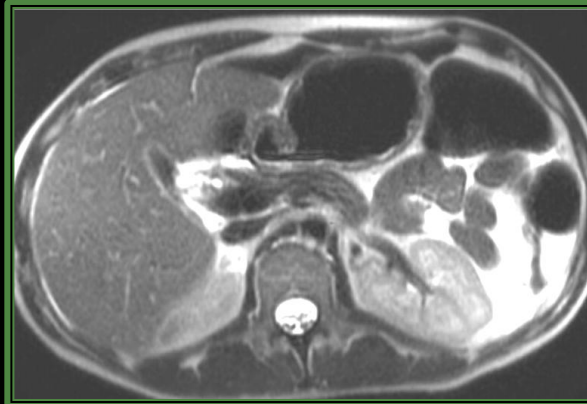
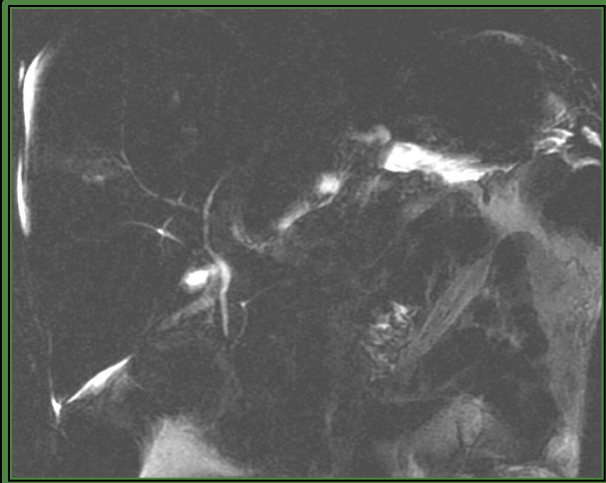
Femme 32 ans

Douleurs abdo post cholécystectomie J2

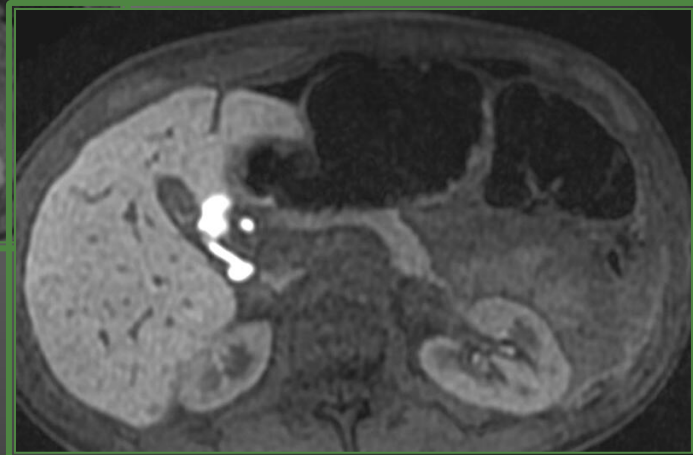


Suspicion de fuite biliaire
Moyen simple de confirmer l'hypothèse ?

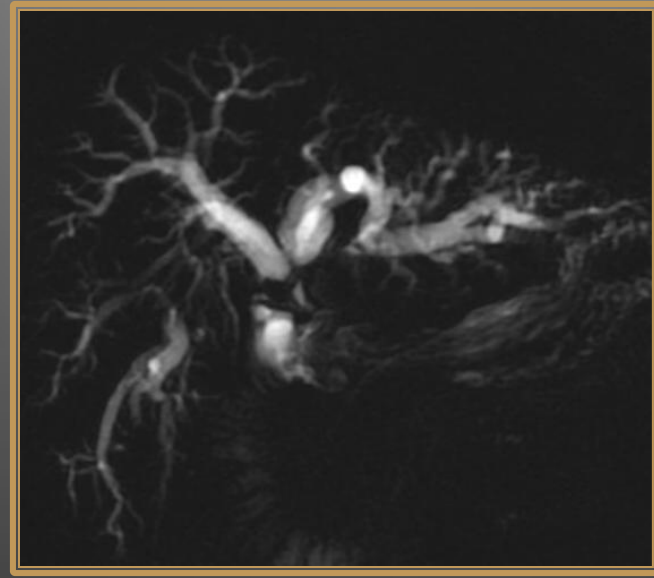
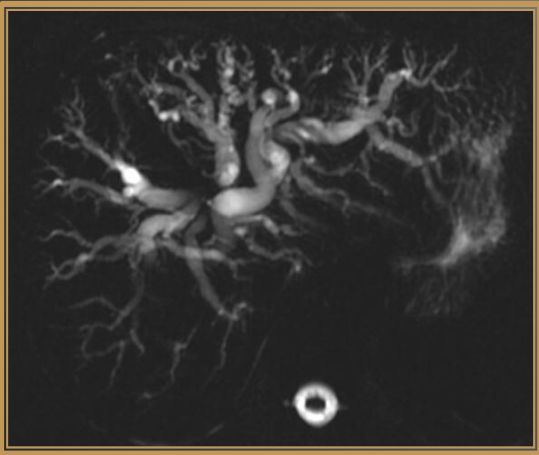
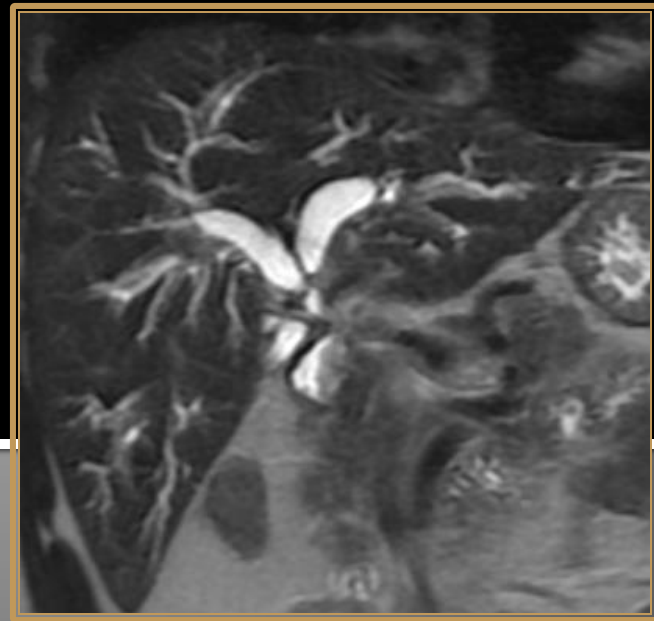
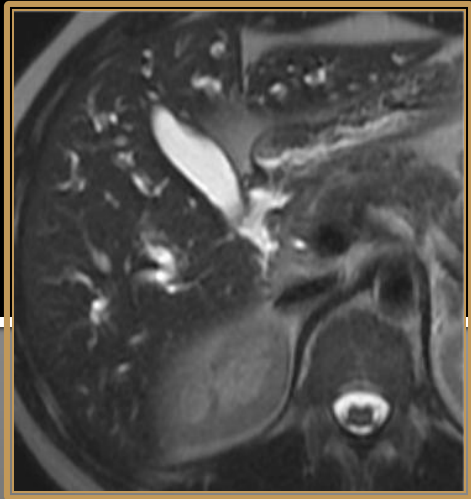
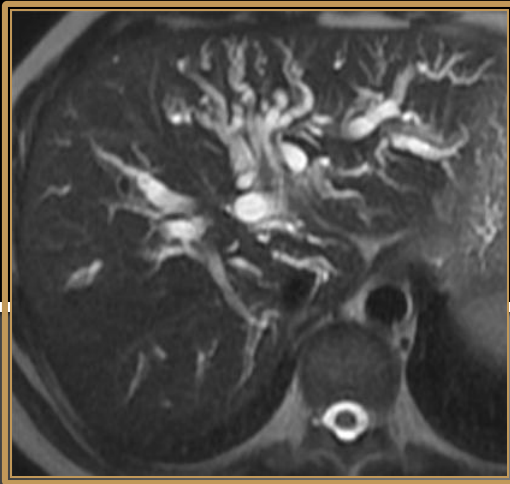


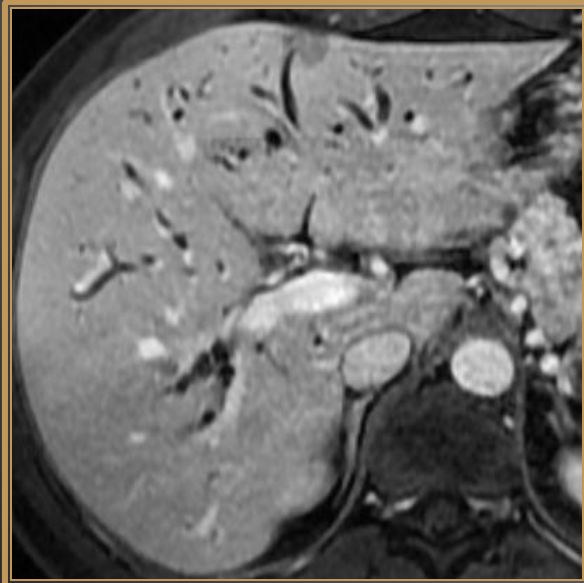
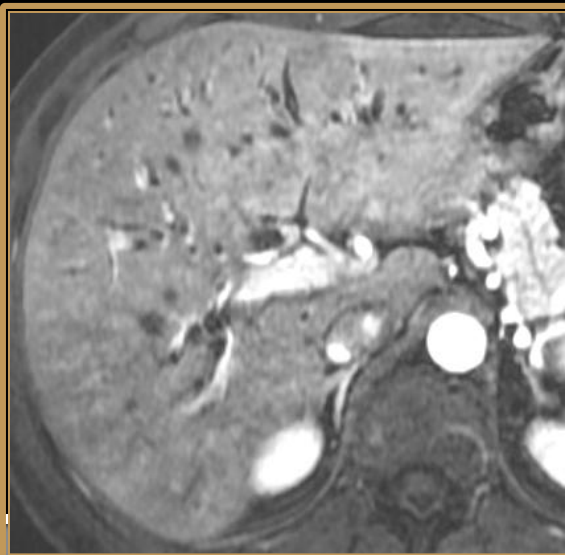
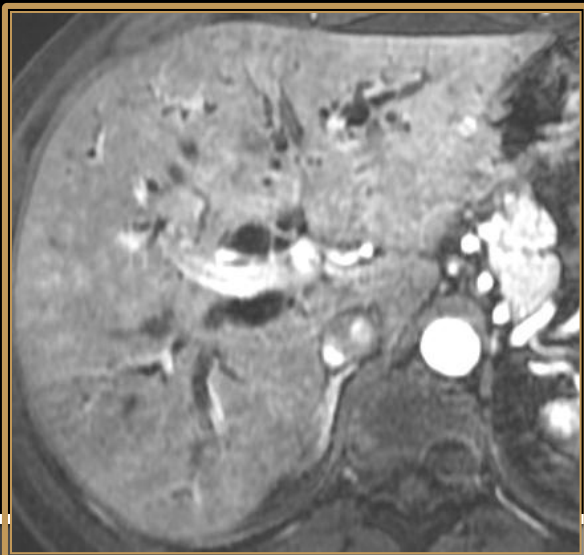


CHOLÉPÉRITOINE



Jeune homme 35 ans
Ictère fluctuant (bili 50 -80)



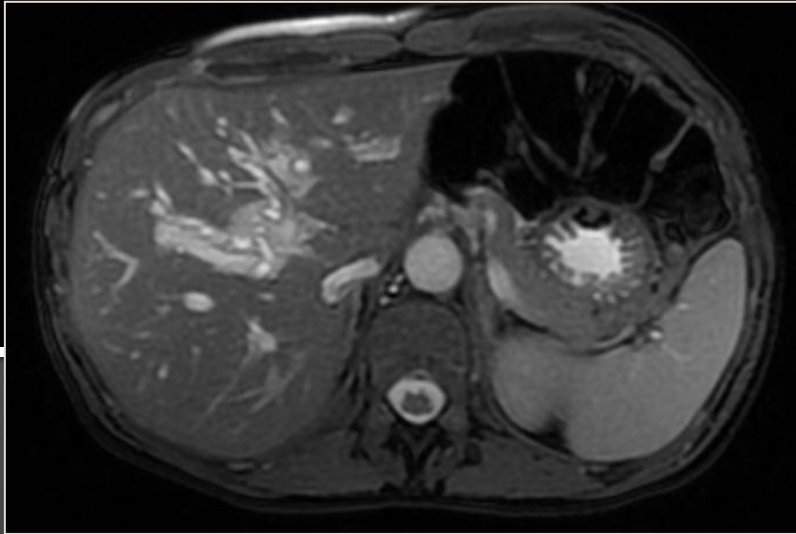


Prise de contraste de la sténose.
Progressive en faveur d'une origine fibreuse.

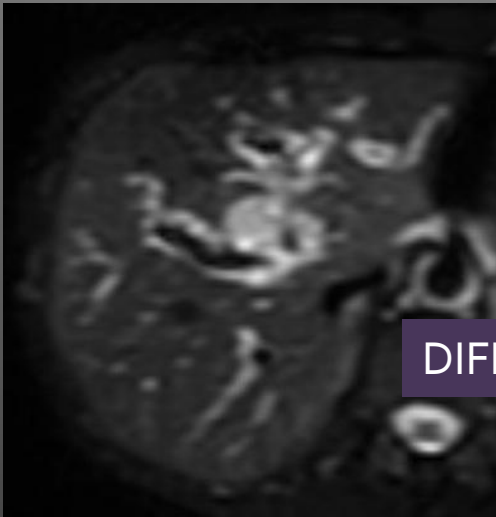
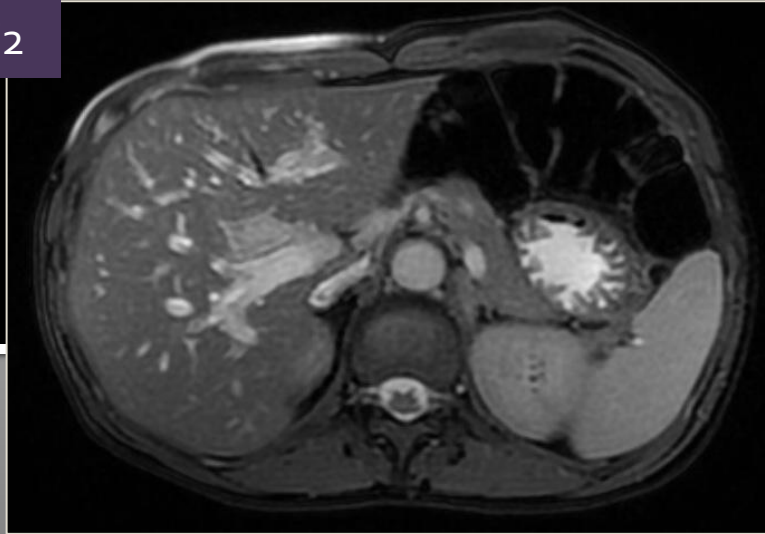
TUMEUR DE KLATSKIN II ?

CHOLANGITE !

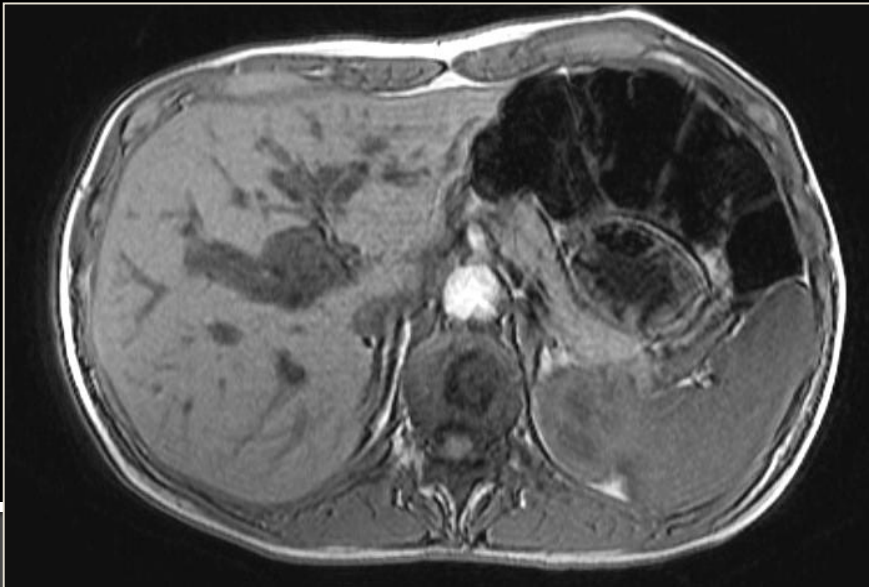
Ictère et douleur de l'hypocondre droit



T2

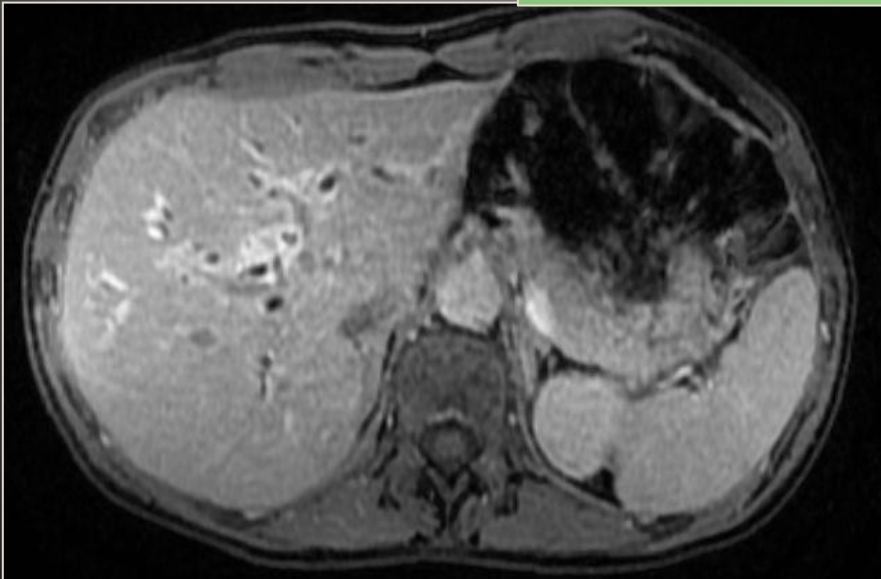


DIFFUSION

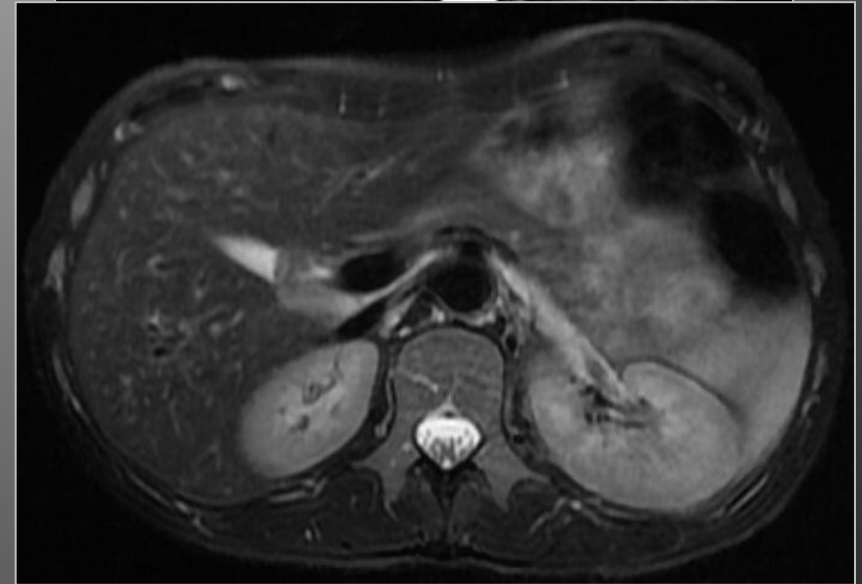
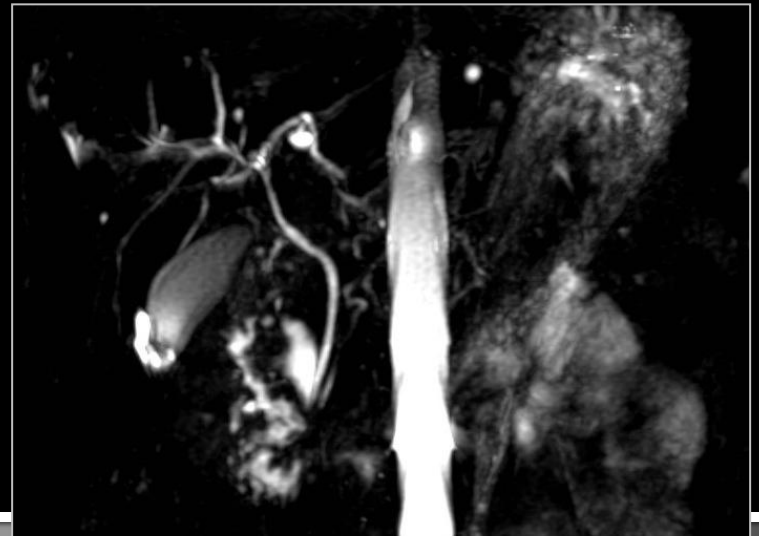


Formation tissulaire hilare en hypo T1 et T2, hyper diffusion et rehaussement progressif..

CHOLANGIOMYOCARCINOME KLATSKIN II



Imagerie 3 mois plus tard...



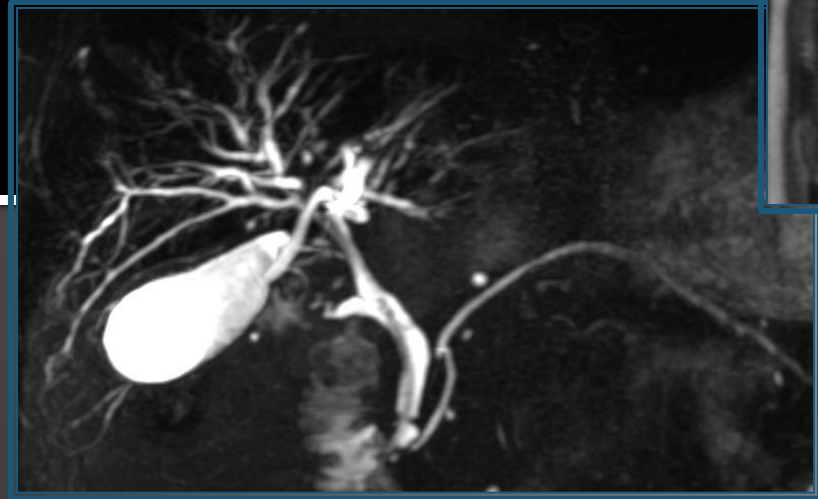
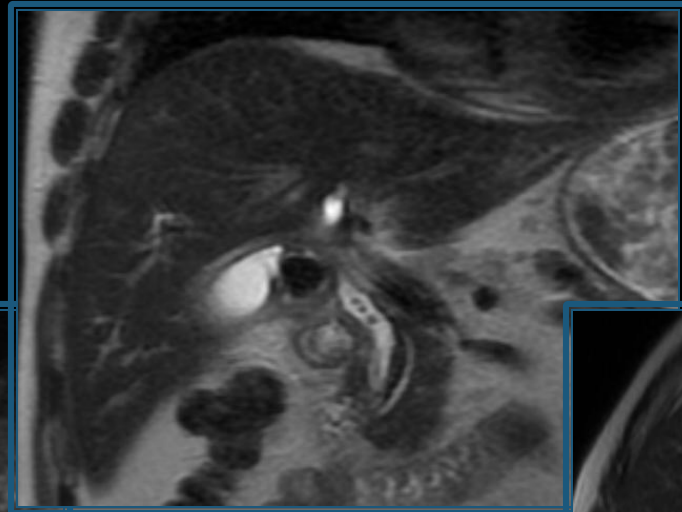
PSEUDO - TUMEUR INFLAMMATOIRE DES VOIES BILIAIRES !

Diagnostic rare, généralement de découverte fortuite sur une pièce opératoire obtenue alors que le diagnostic clinique et radiologique retenu en préopératoire est celui d'un ***cholangiocarcinome (= DD)***.

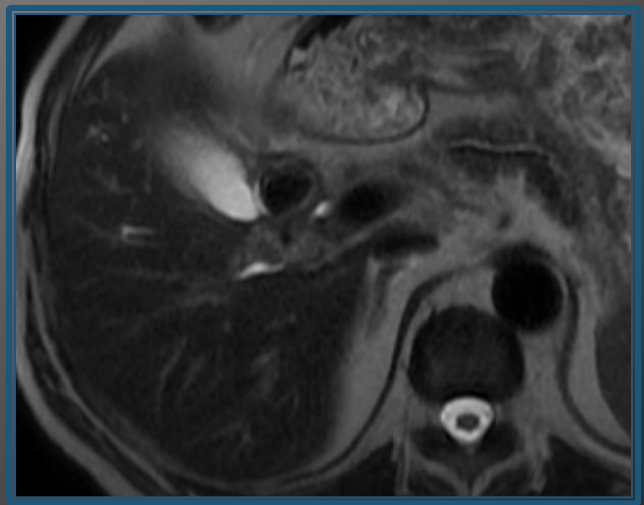
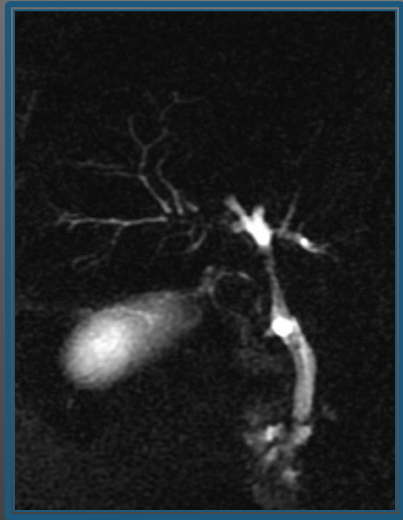
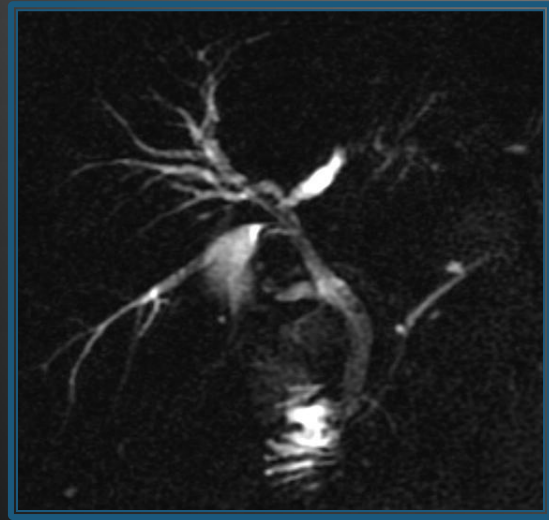
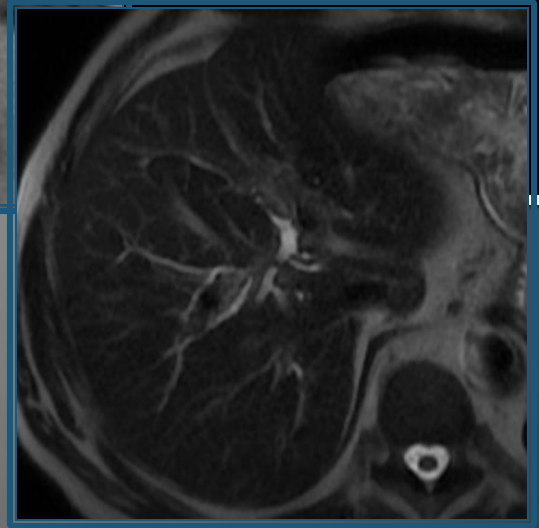
Touche surtout les voies biliaires du hile hépatique.
Clinique et biologie liée à un obstacle tumorale des voies biliaires.

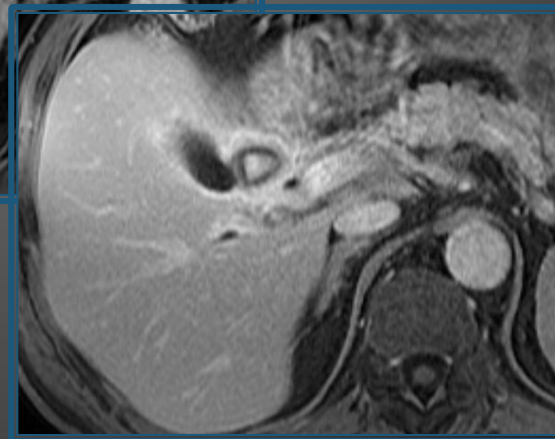
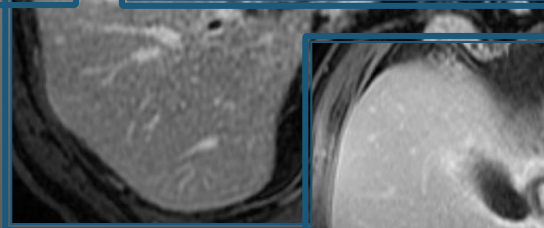
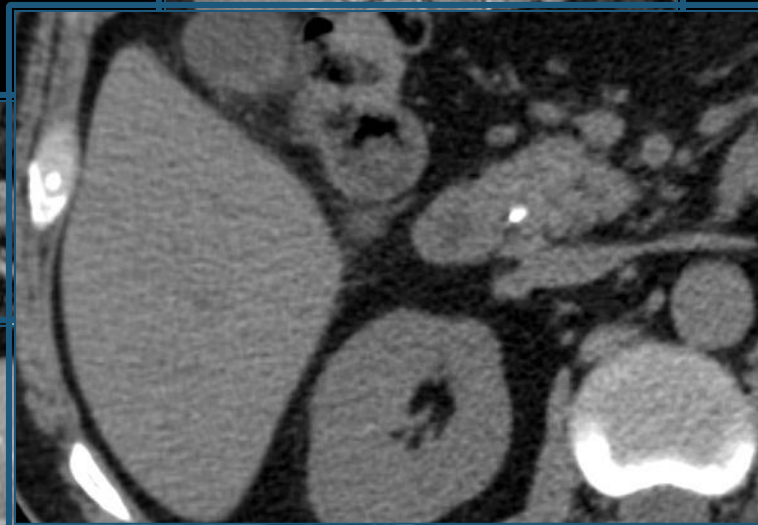
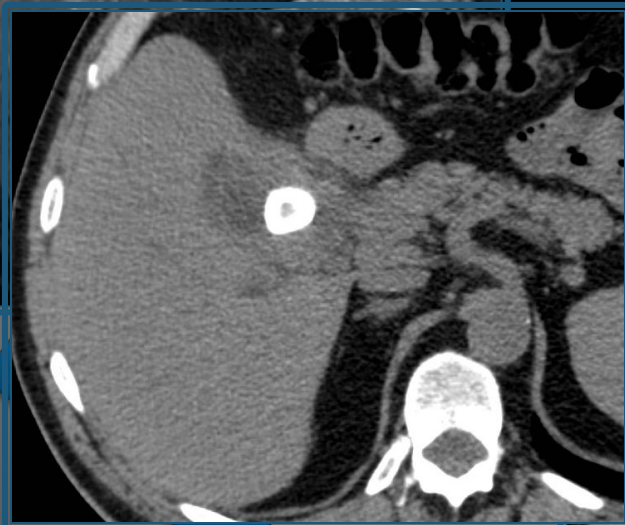
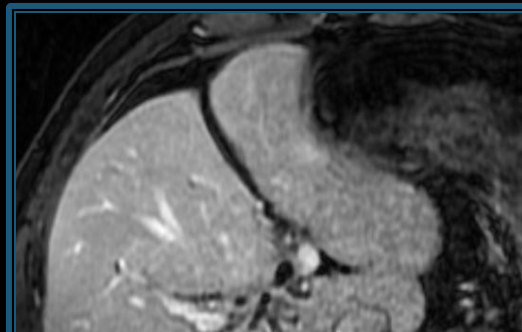
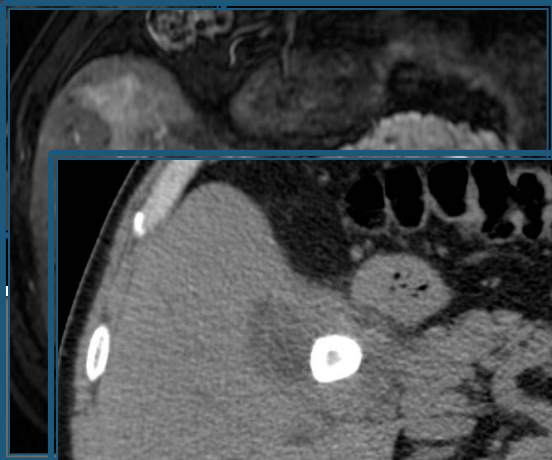
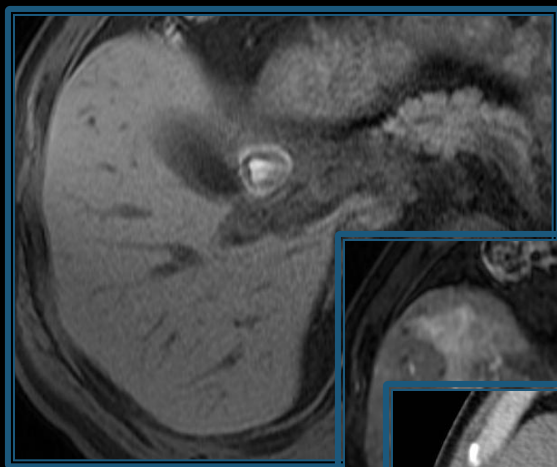
Origine bactérienne? Immuno-allergique?

Homme 61 ans
Douleurs HCD
Cholestase



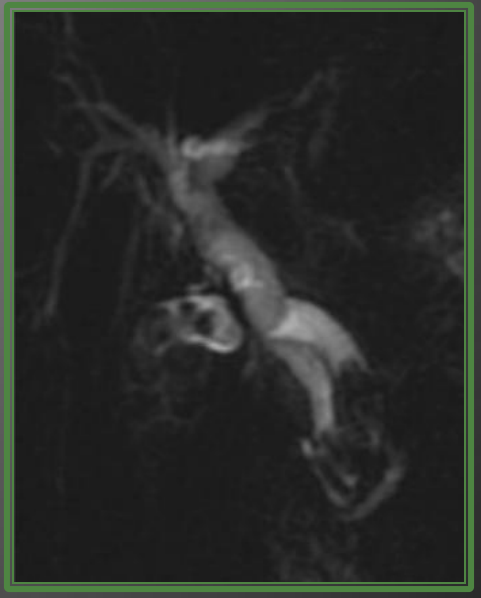
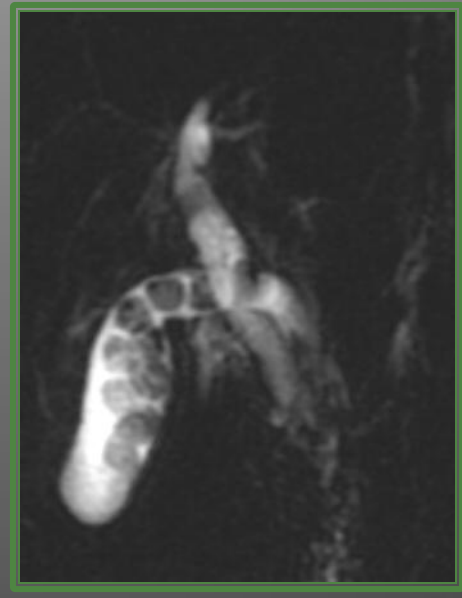
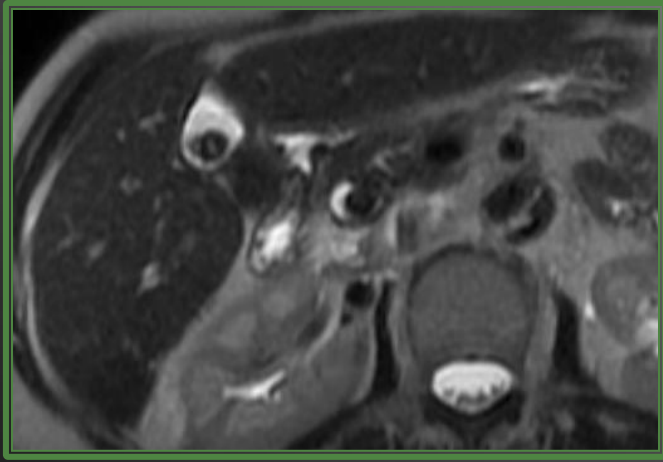
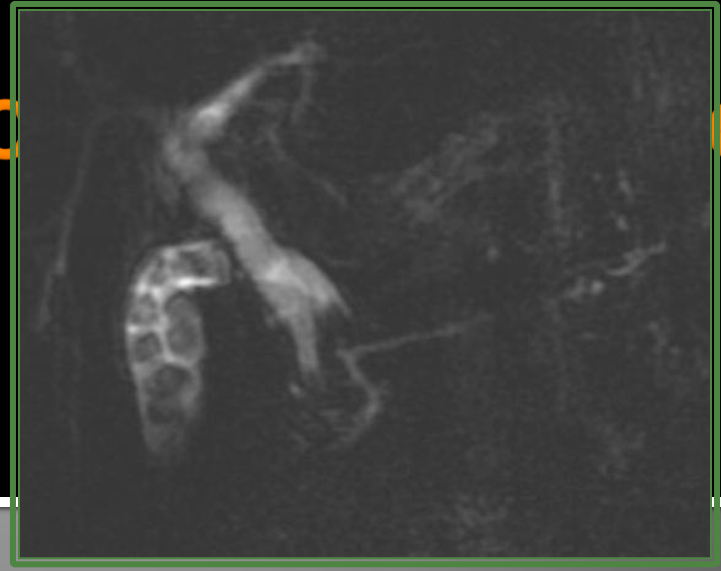
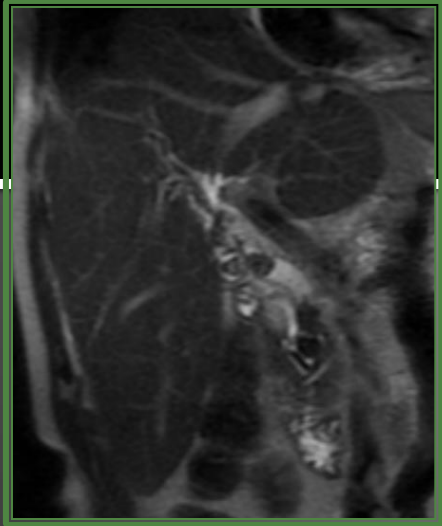
Imagerie T2





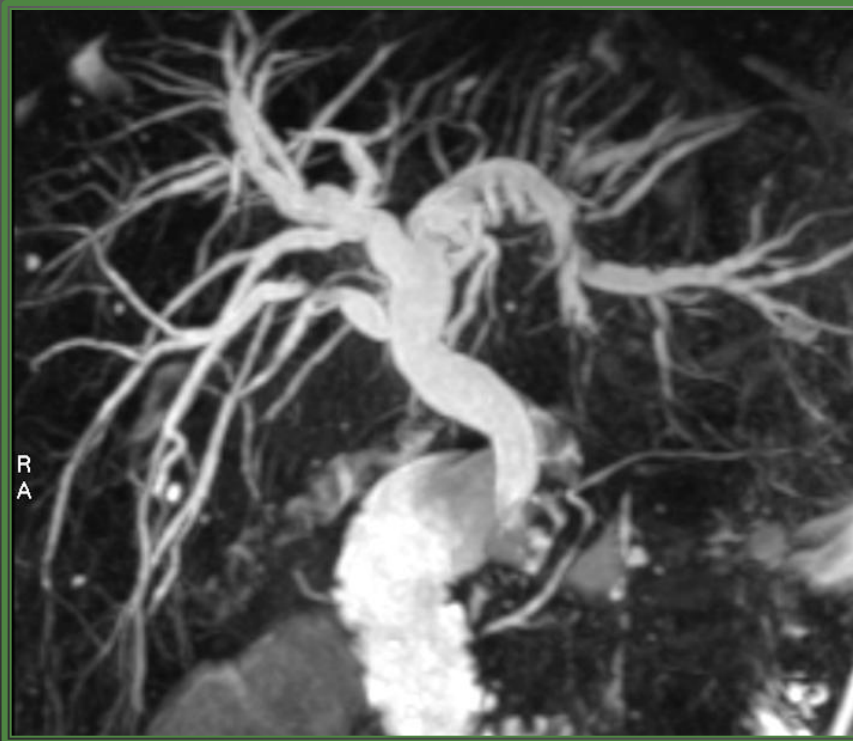
Syndrôme de Mirizzi
Calculs de la VBP

Bilan avant cho cholestase



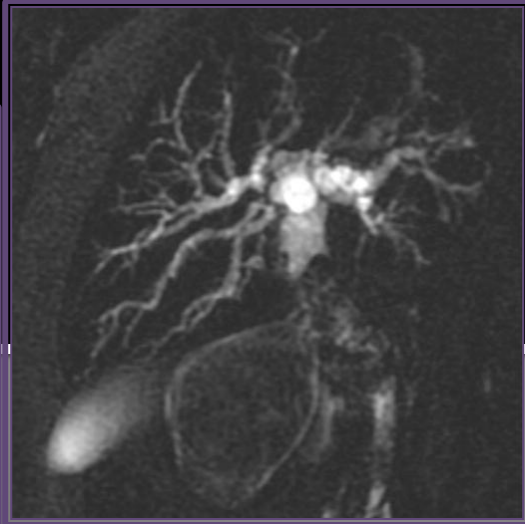
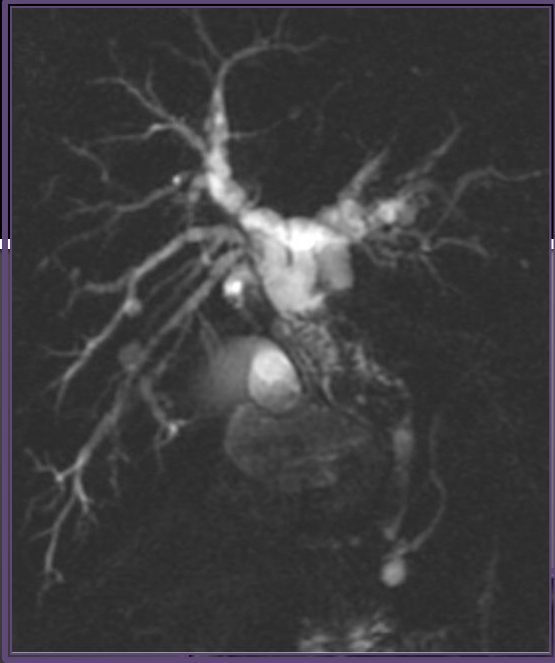
**EMPIERREMENT DU CYSTIQUE
INSERTION BASSE MÉDIANE**

Importance des séquences 3D ATCD de cholécystectomie Ictère et dilatation VBP

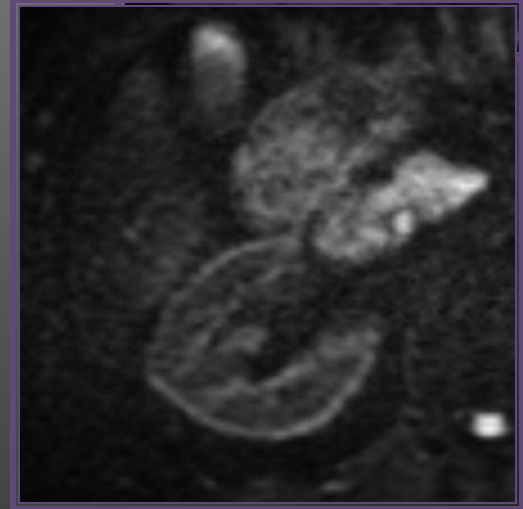
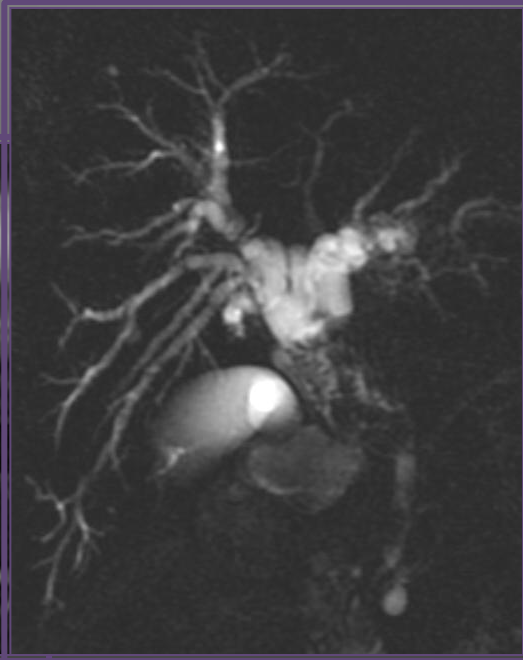
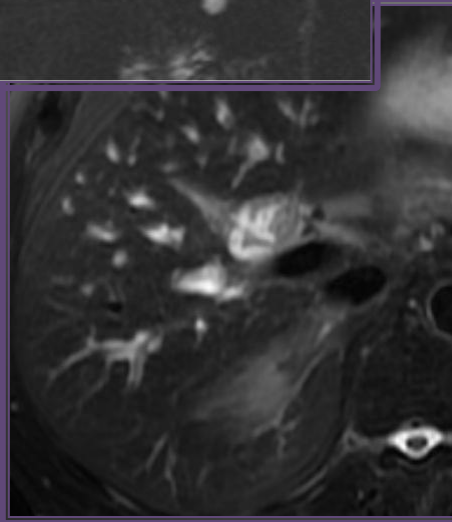
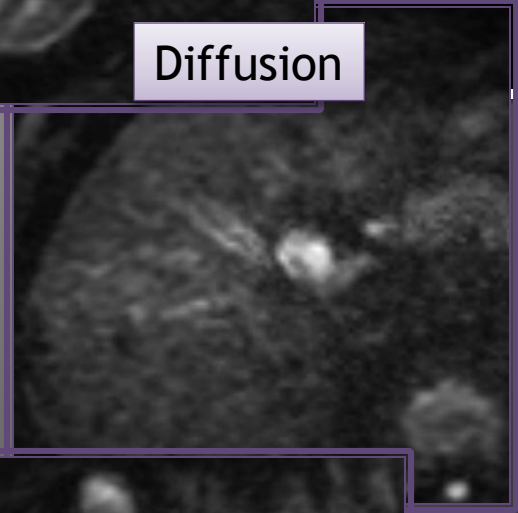


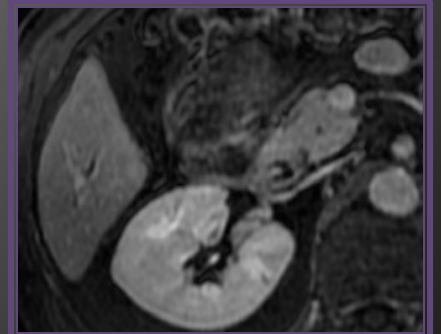
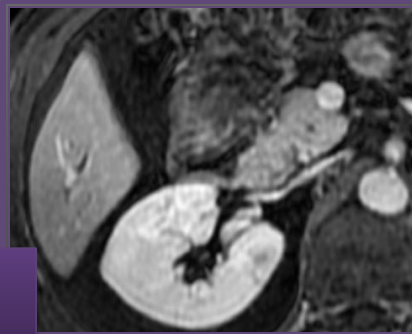
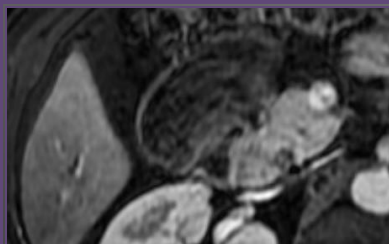
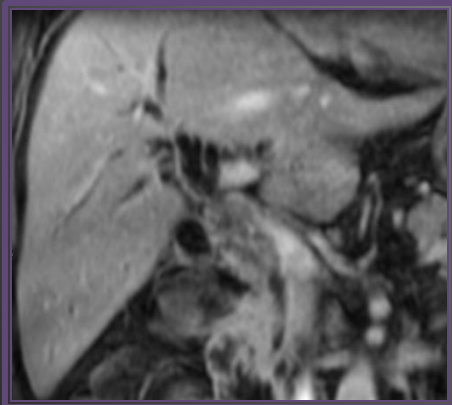
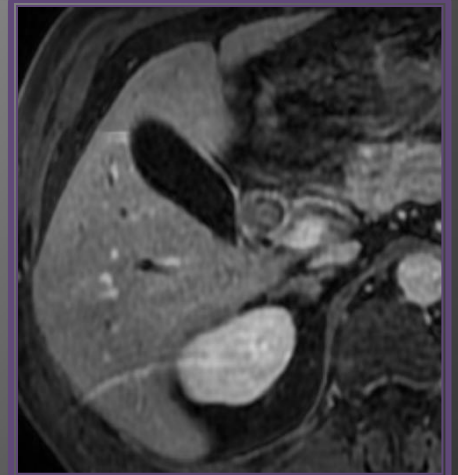
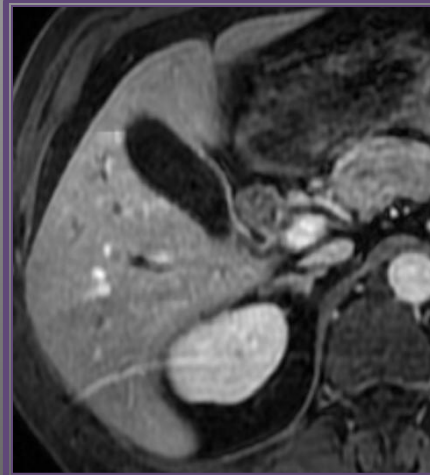
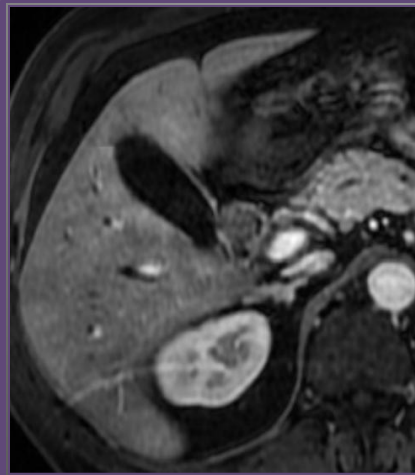
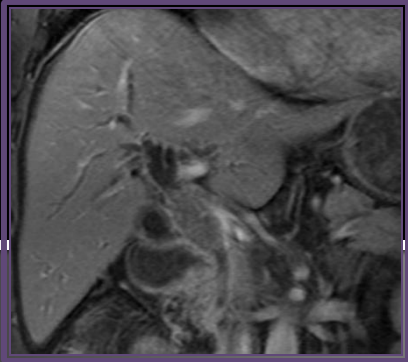
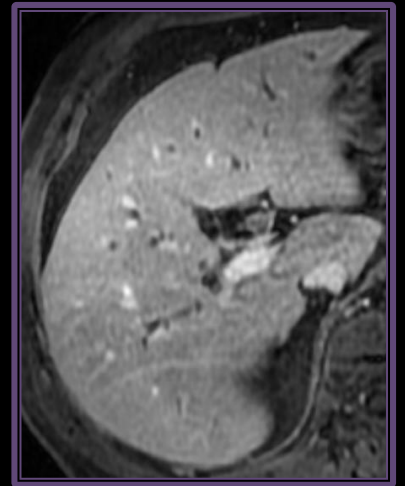
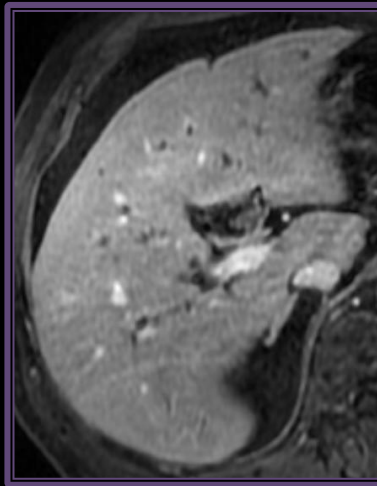
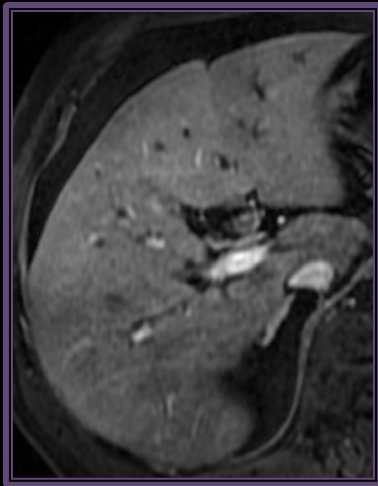
Homme 66 ans
Ictère

Cas n° 14



Diffusion



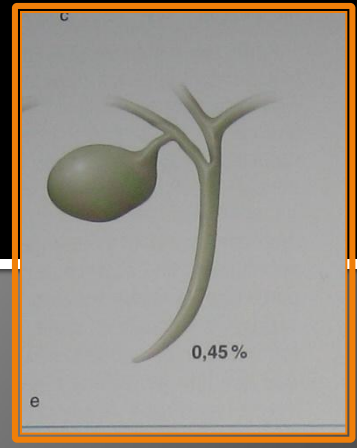
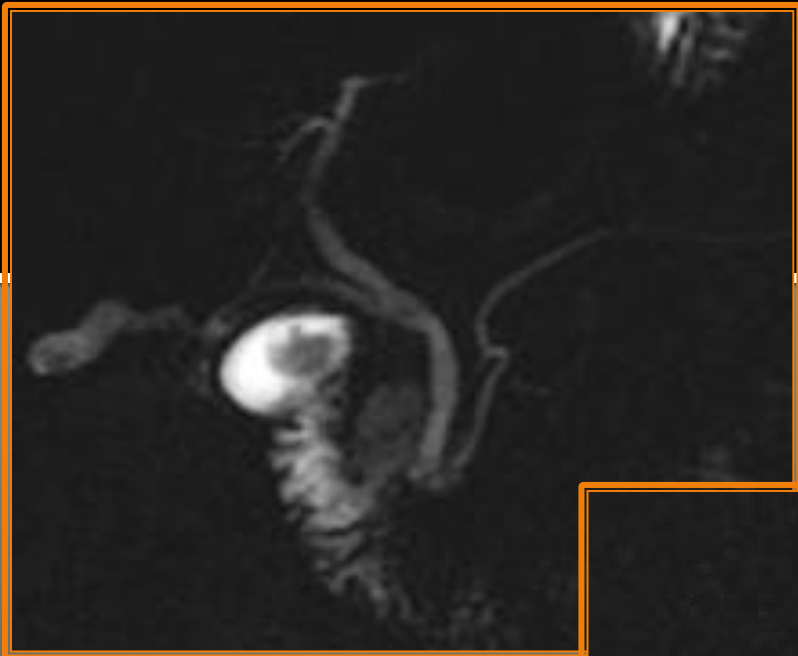


PAPILLOMATOSE ENDO BILIAIRE

Papillomatose biliaire

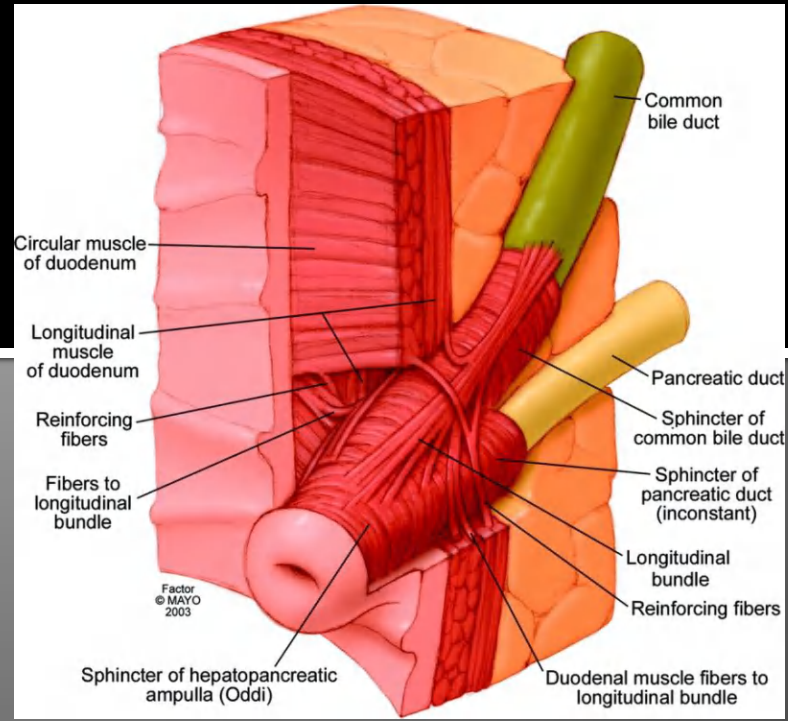
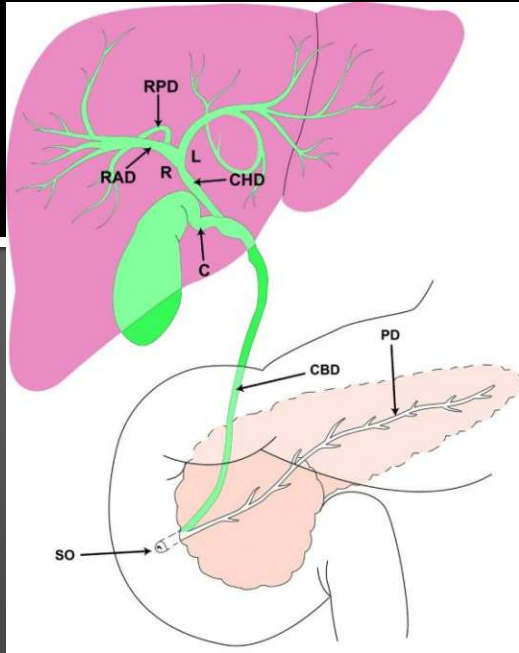
- Pathologie rare caractérisée par une prolifération papillaire de l'épithélium des canaux biliaires.
- Dégénère en adénocarcinome dans environ 35% des cas.
- Elle concerne les voies biliaires extra hépatiques dans 58% des cas, les voies biliaires intrahépatiques dans 9% des cas, ou les 2 dans 33% des cas; elle prend son origine dans les canaux les plus centraux et s'étend en périphérie.
- Le diagnostic n'est souvent évoqué qu'après de multiples épisodes d'ictère et d'angiocholite.
- Le seul traitement curateur est la transplantation hépatique.
- Certaines tumeurs produisent de la mucine en grande quantité, ce qui entraîne d'importantes dilatations des voies biliaires intra hépatiques, segmentaires ou diffuses. La stase biliaire peut favoriser la formation de calculs.

Bilan avant cholecystectomie LVBP ?

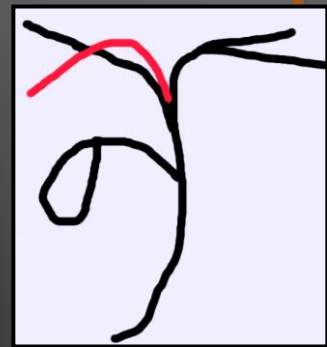
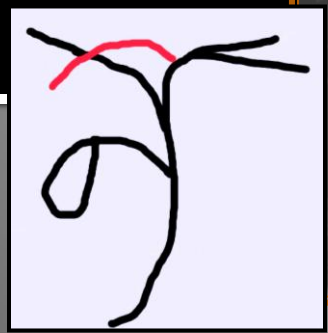
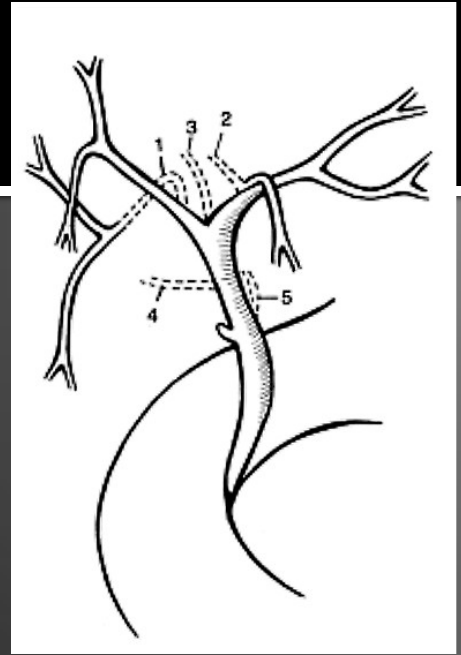


**INSERTION ECTOPIQUE DU CANAL CYSTIQUE DANS
LA VOIE BILIAIRE DROITE**

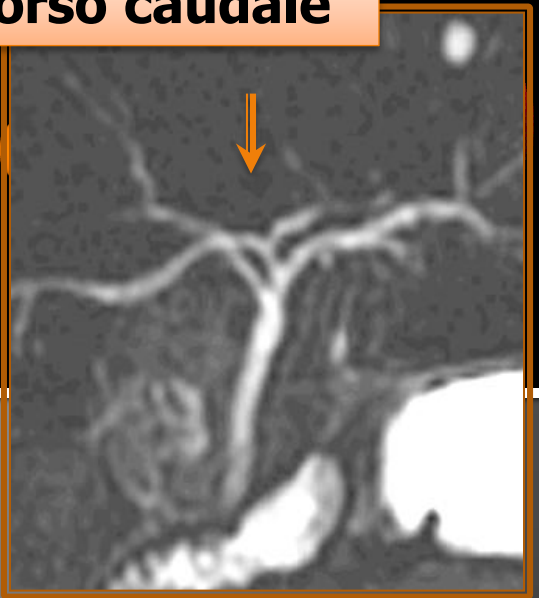
Variante Anatomique



Variante Ar



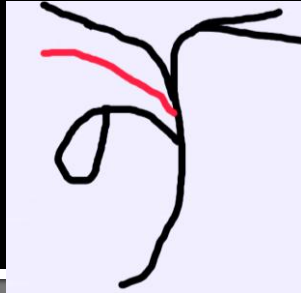
Branche dorso caudale



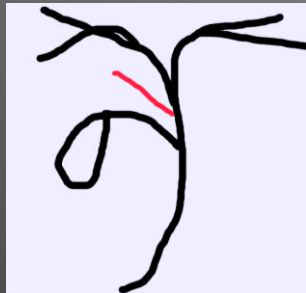
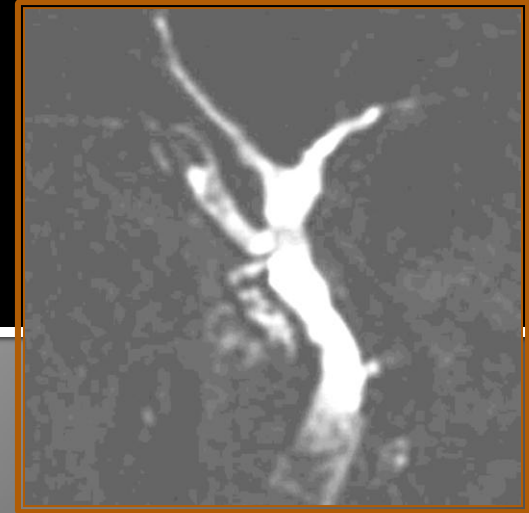
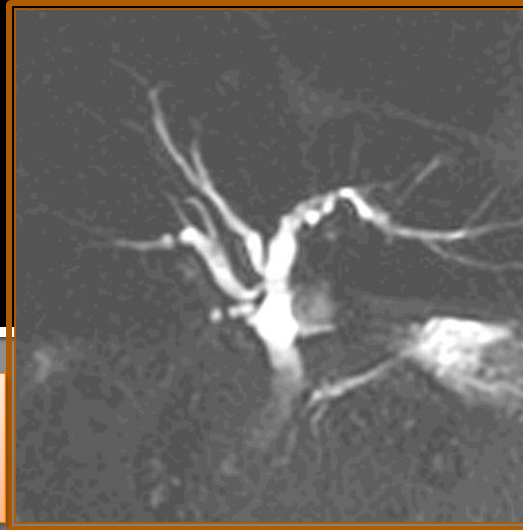
Trifurcation



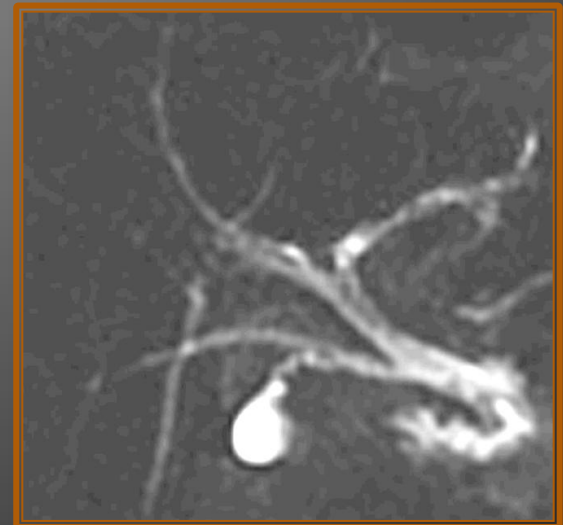
Variante Anatomique



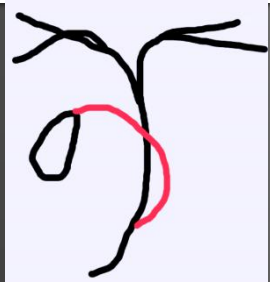
Canal hépatique droit aberrant



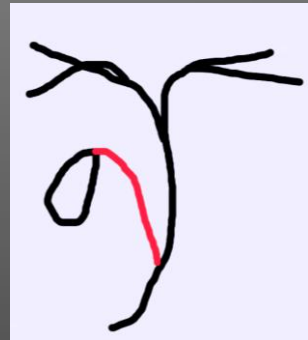
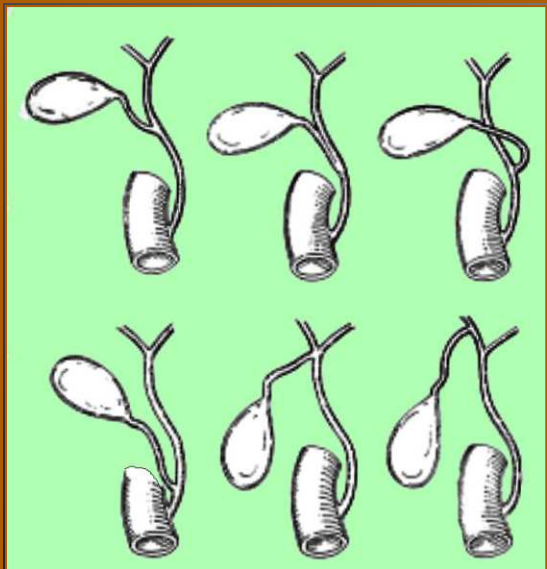
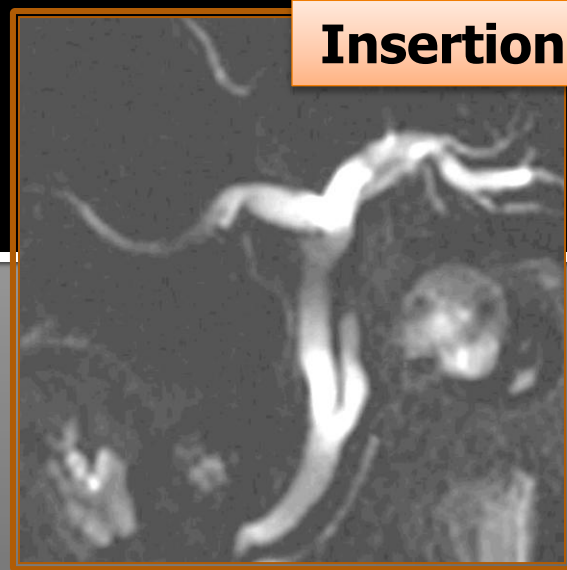
Canal hépatique droit accessoire



Variante Anatomique d'insertion du canal cystique



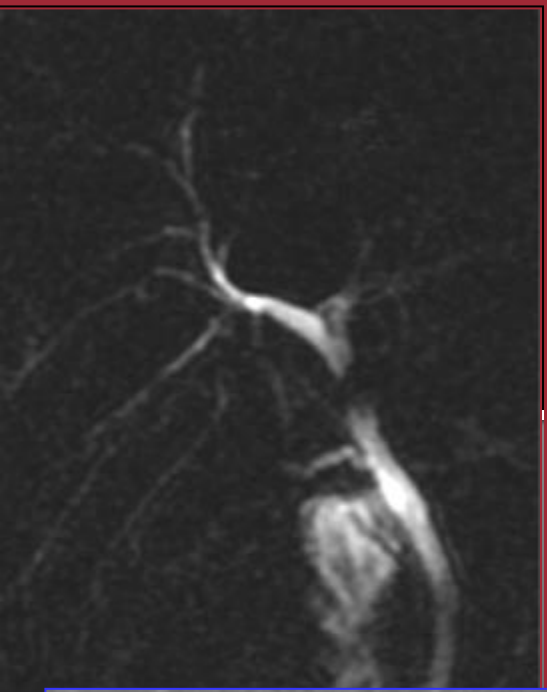
Insertion médiale



Trajet parallèle



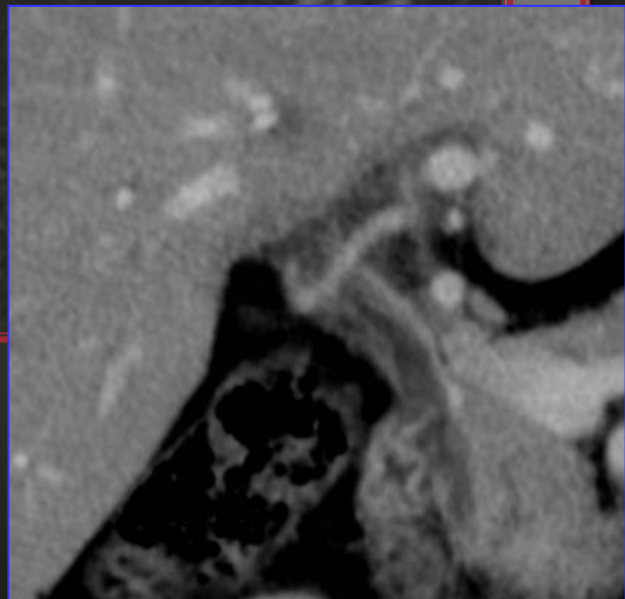
Bilan pré chirurgie



SSFSE Te court



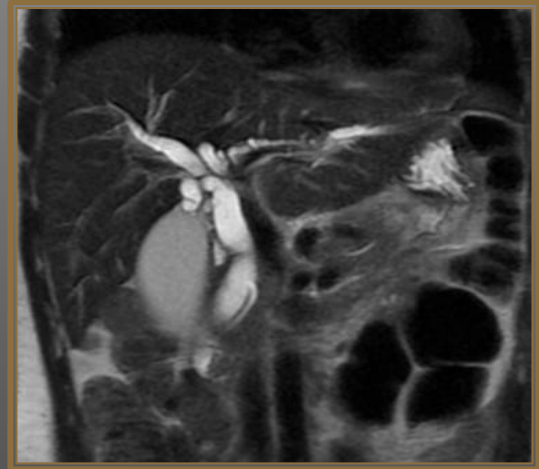
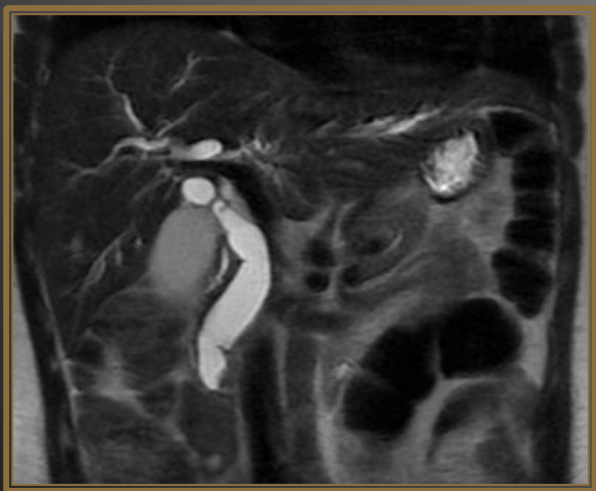
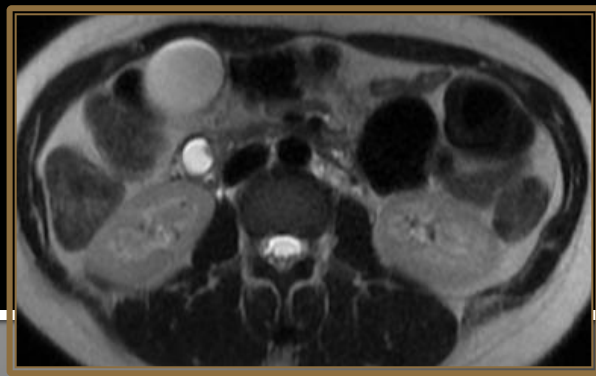
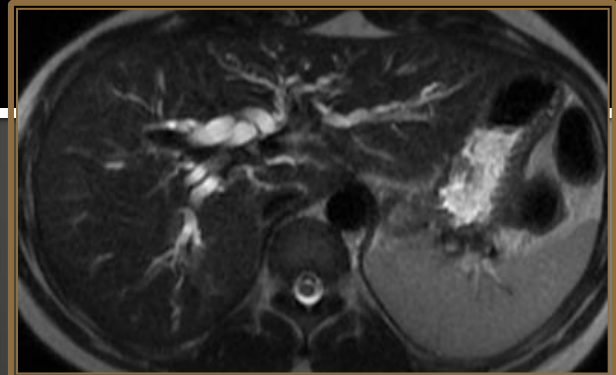
3D FIESTA



*Empreinte de l'artère hépatique:
impression de sténose hilaire*

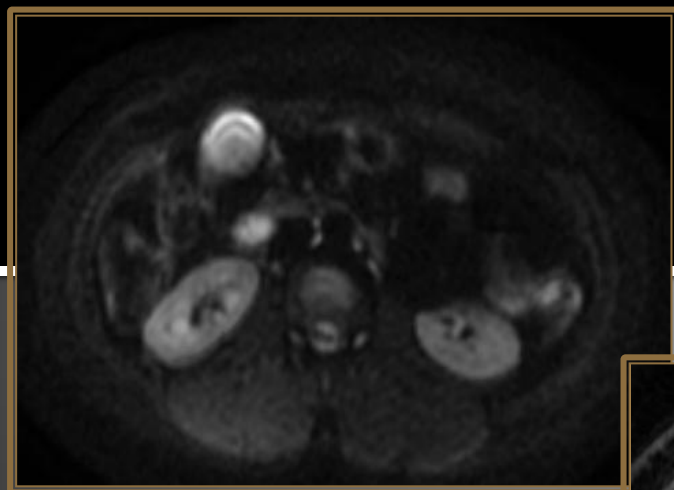


Bilan d'ictère





Bilan d'ictère



Dilatation de la VBP.
Sténose excentrée
Irrégulière



Ampullome

Ampullome

Adénocarcinome (85%) siégeant sur la papille

Rares (incidence ~3 / 100 000)

Facteurs de risque :

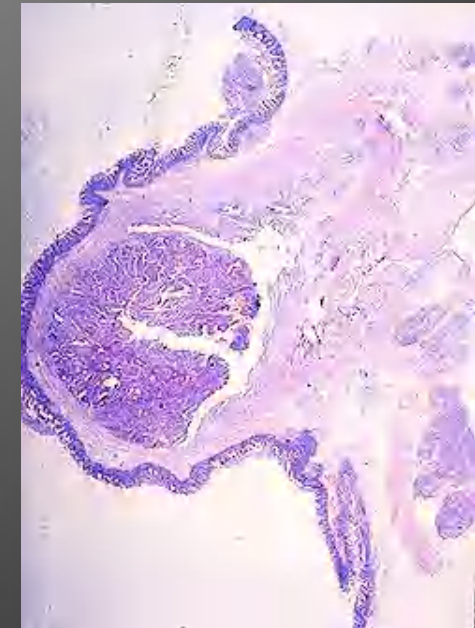
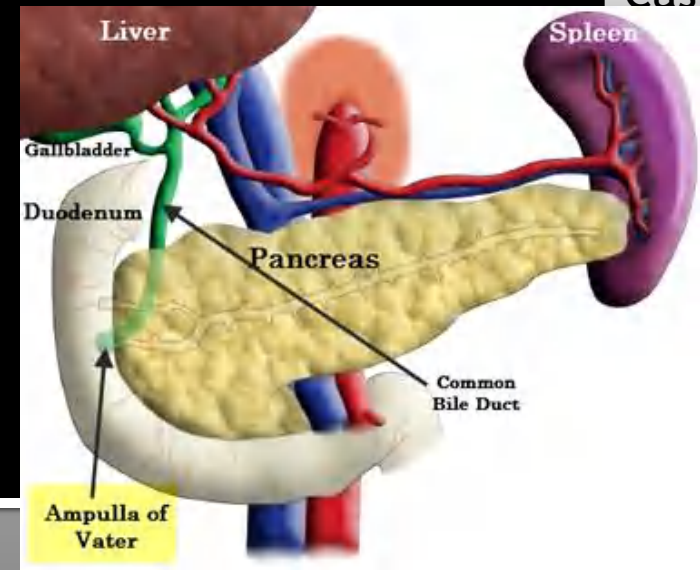
- polypose adénomateuse familiale
- NF1
- Tabac?

Clinique :

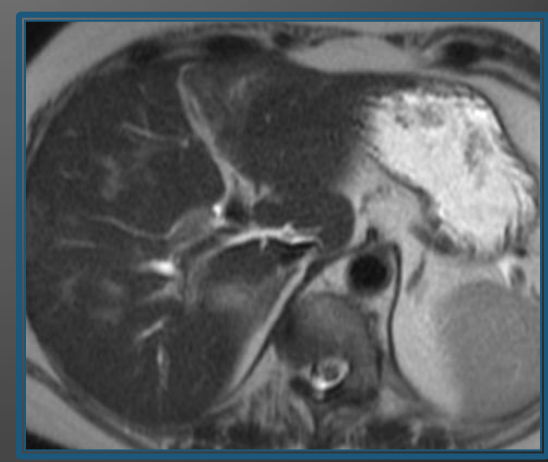
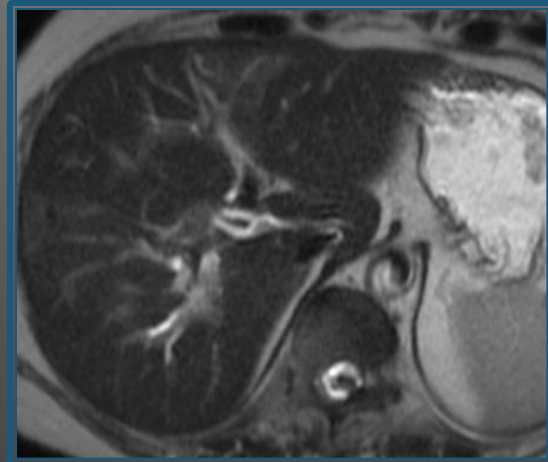
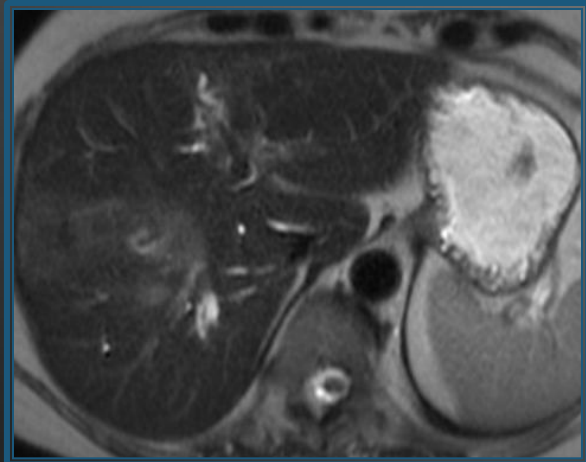
- douleurs de l'HCD
- ictère cholestatique
- saignement digestif
- pancréatite aiguë

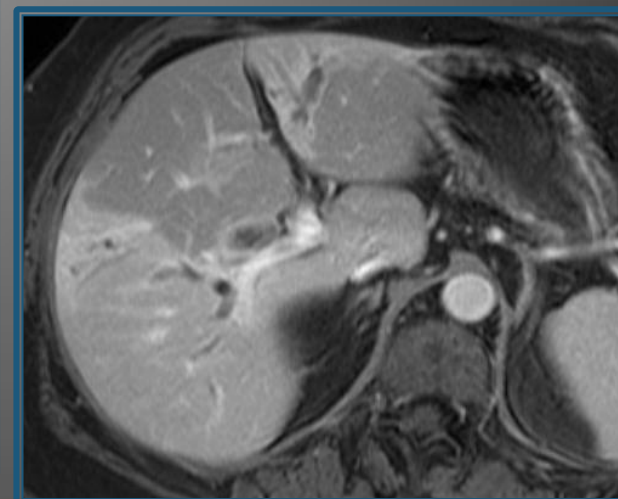
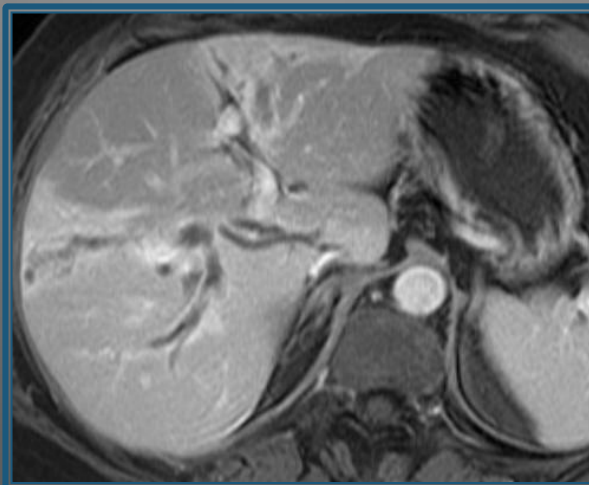
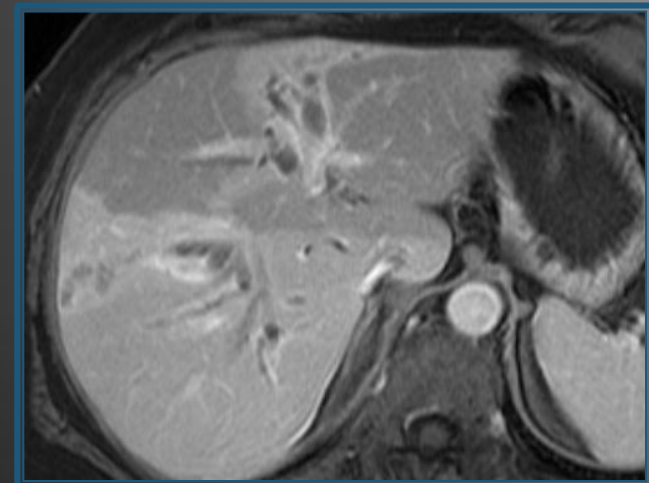
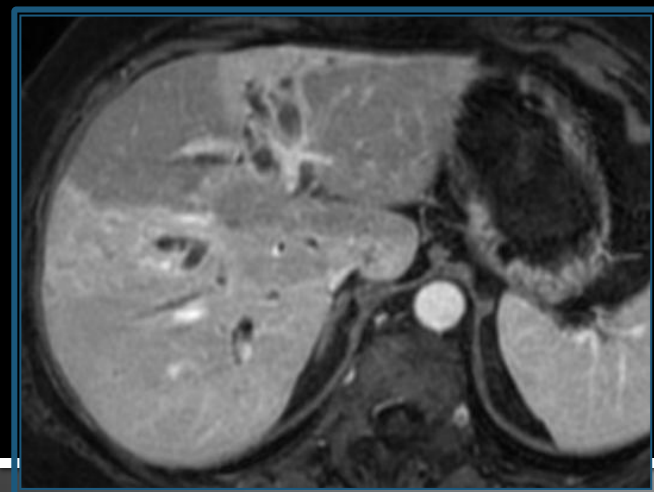
Macroscopie :

- lésion végétante/ulcérée/mixte
- développement duodénal et/ou endo ampullaire

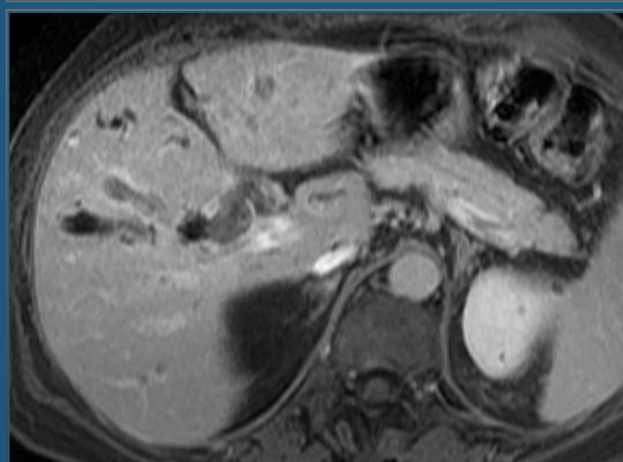
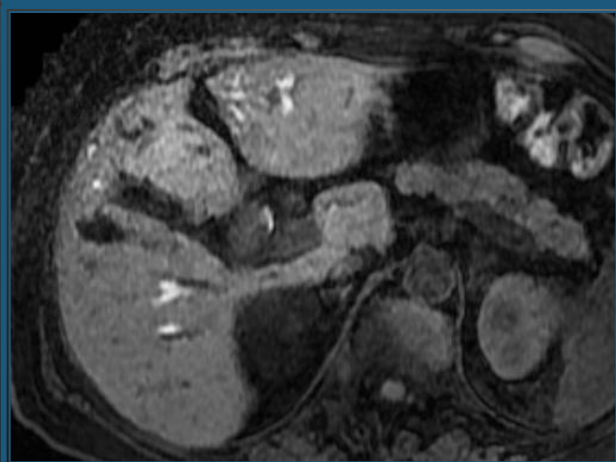
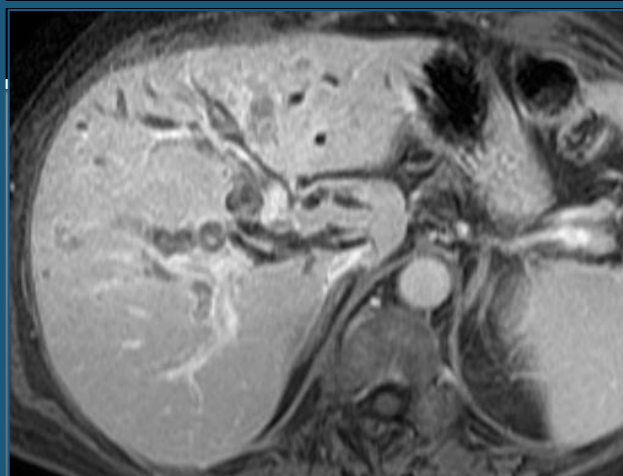
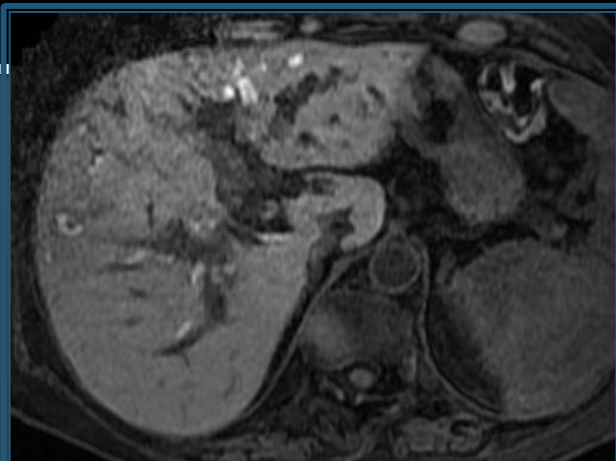
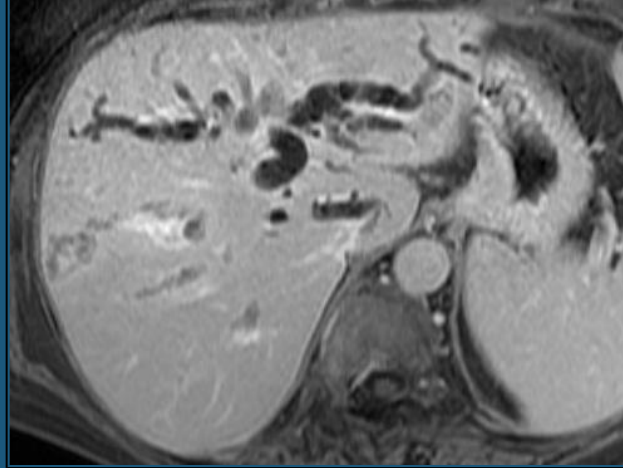
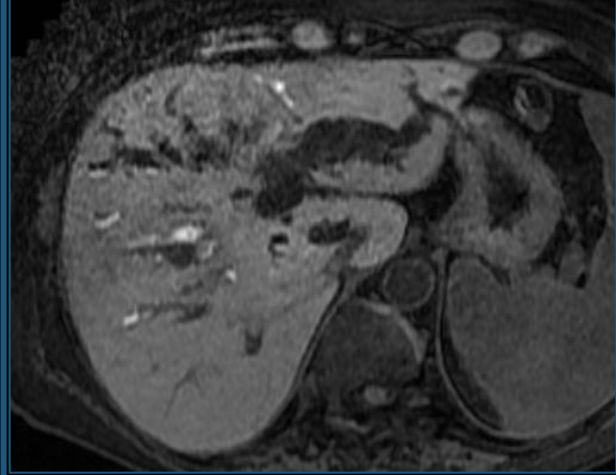


ATCD ADK colique 4ans
Coloscopie normale
cholestase biologique



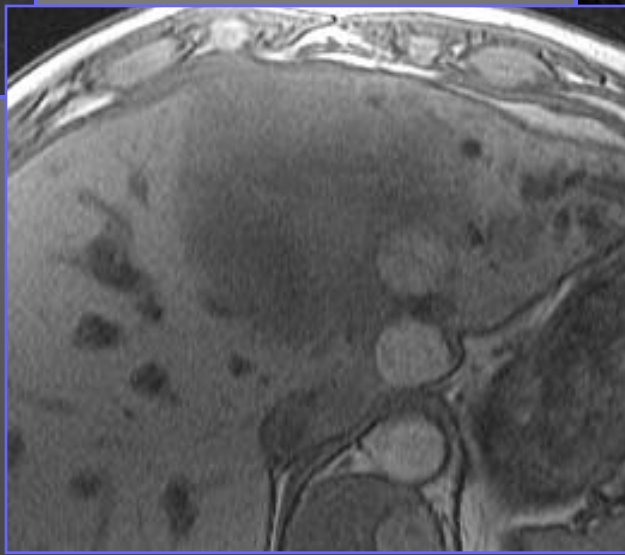
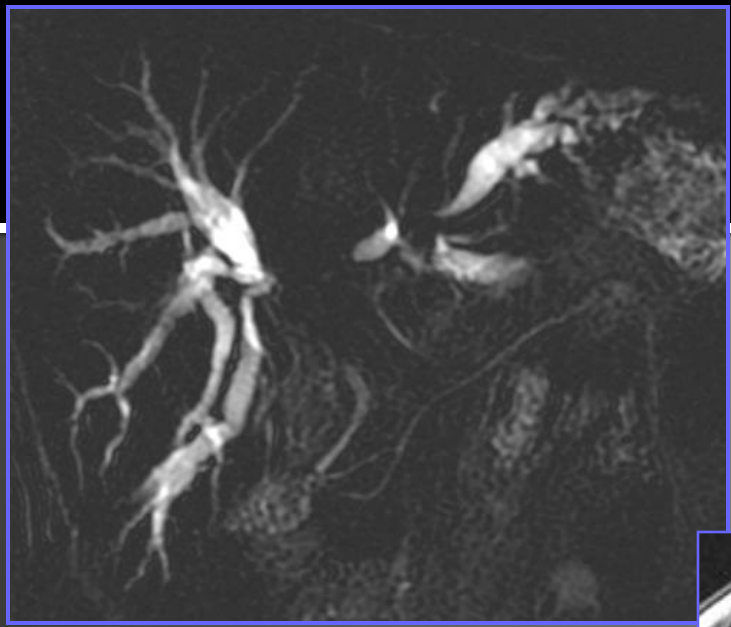
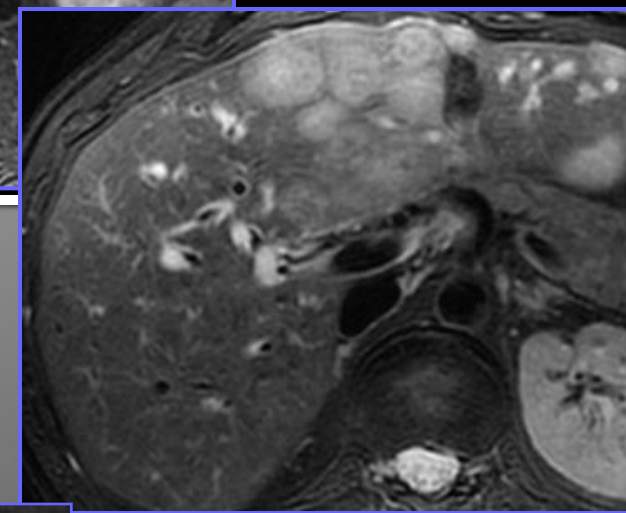
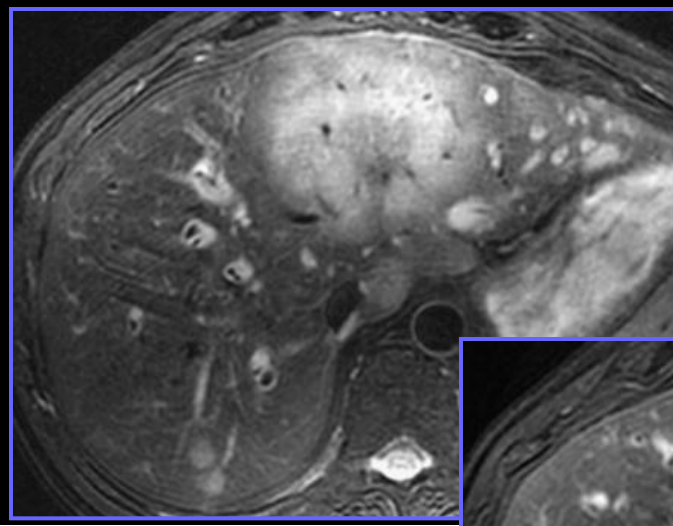


Métastases endo biliaires de l'ADK colique

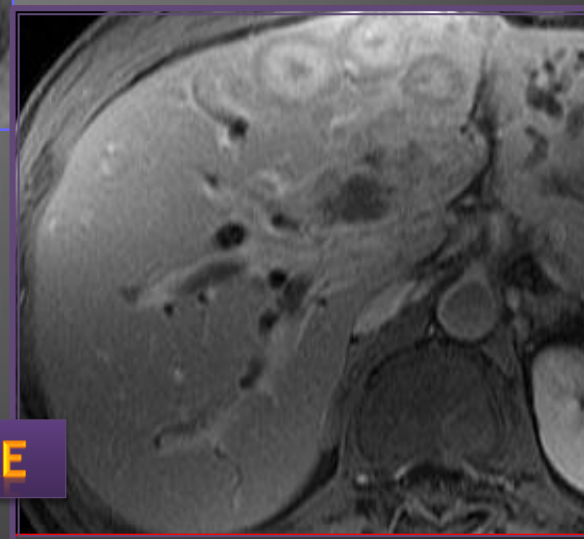
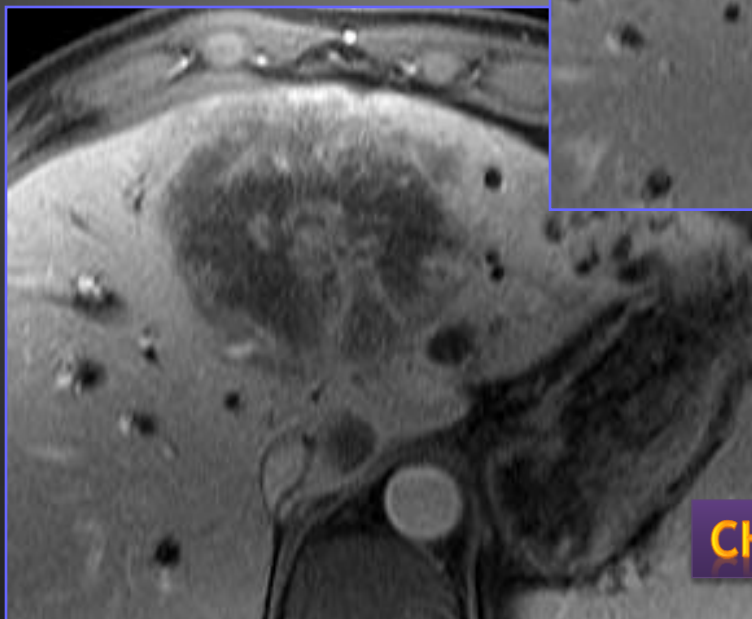
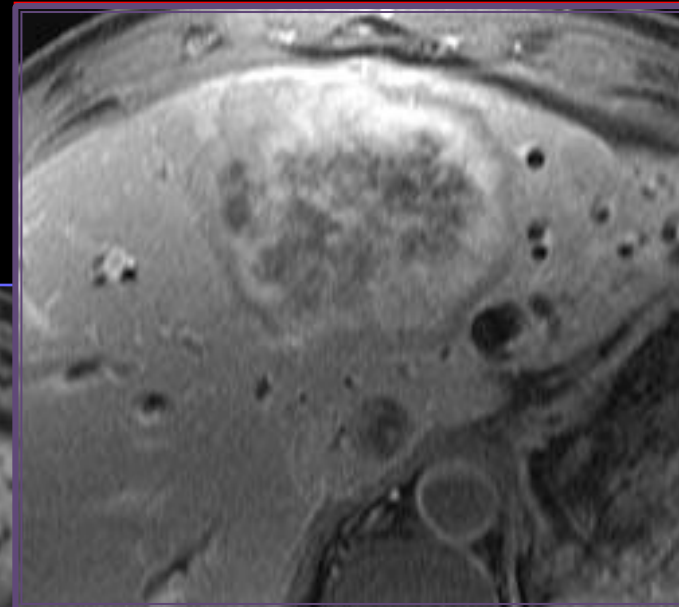
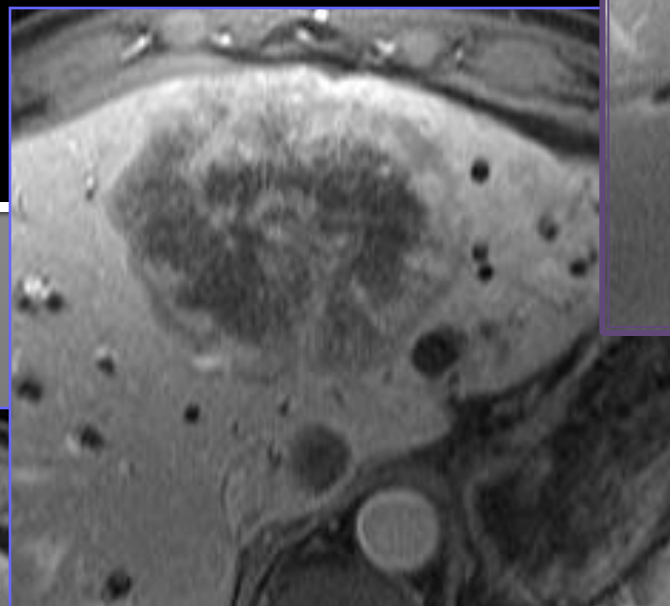


Evolution péjorative
Décès a 4 mois

Femme 70 ans
AEG
Cholestase

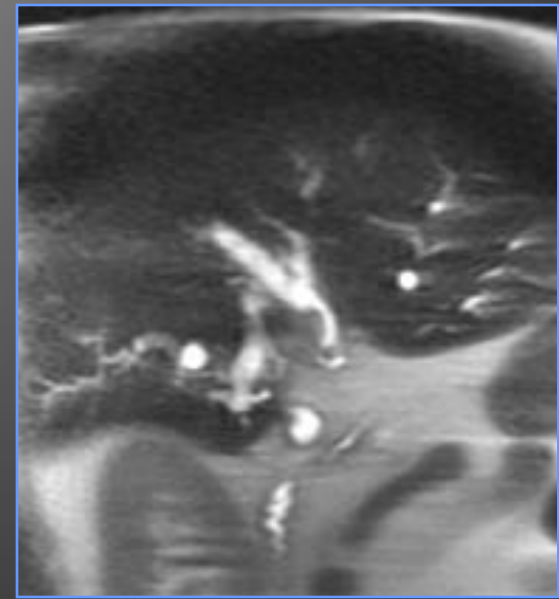
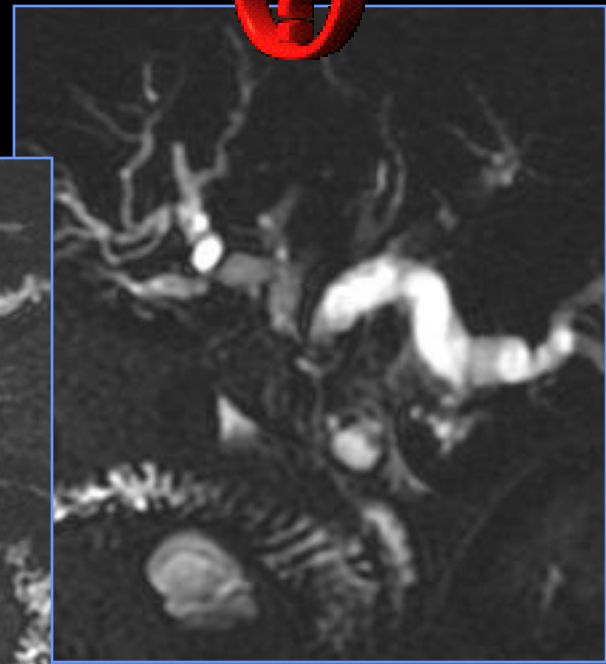
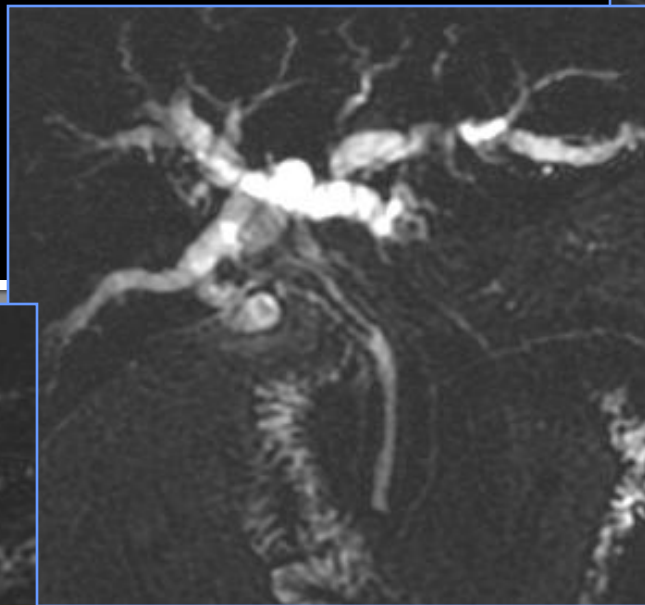
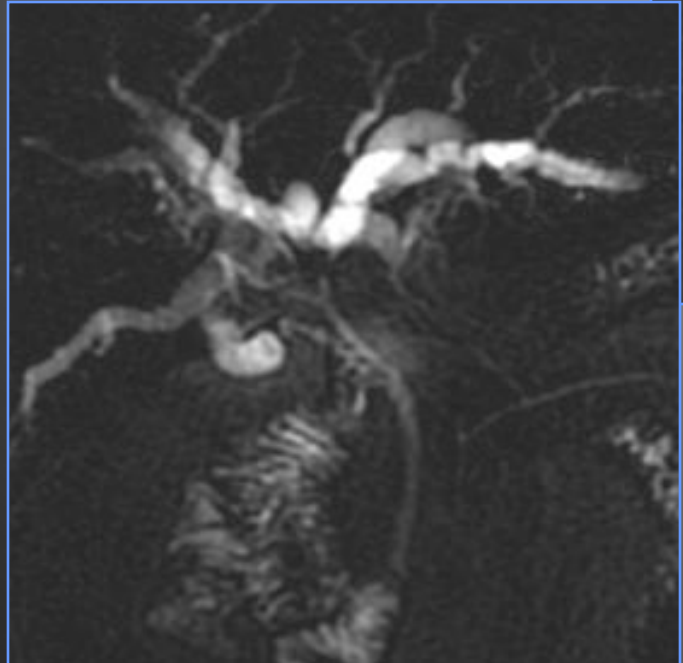
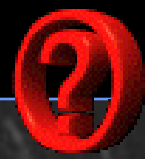


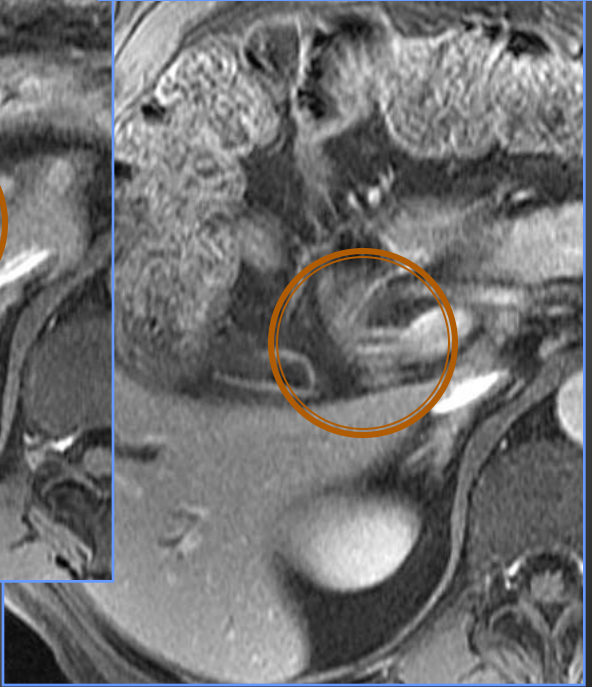
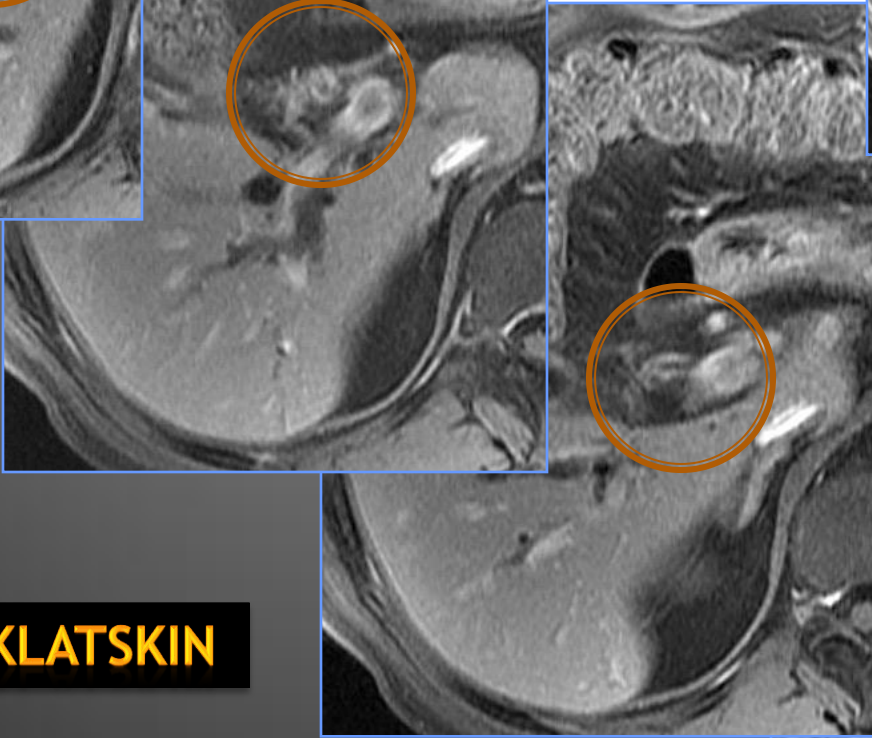
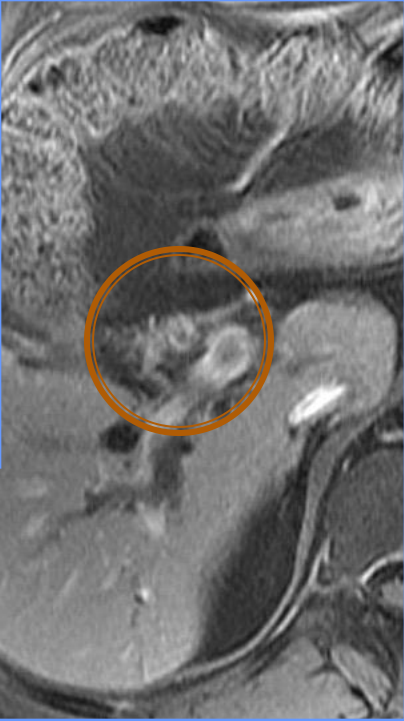
Injection
dynamique



CHOLANGIOCARCINOME

Homme 64 ans Ictère cholestasique

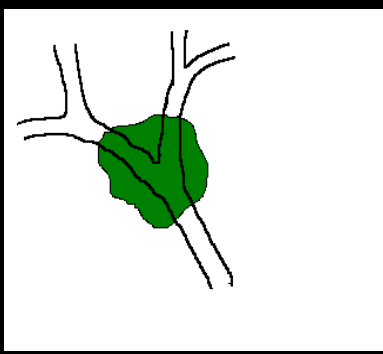
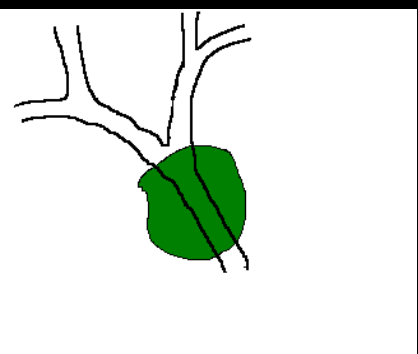




TUMEUR DE KLATSKIN

Bismuth

Extension biliaire



TYPE I

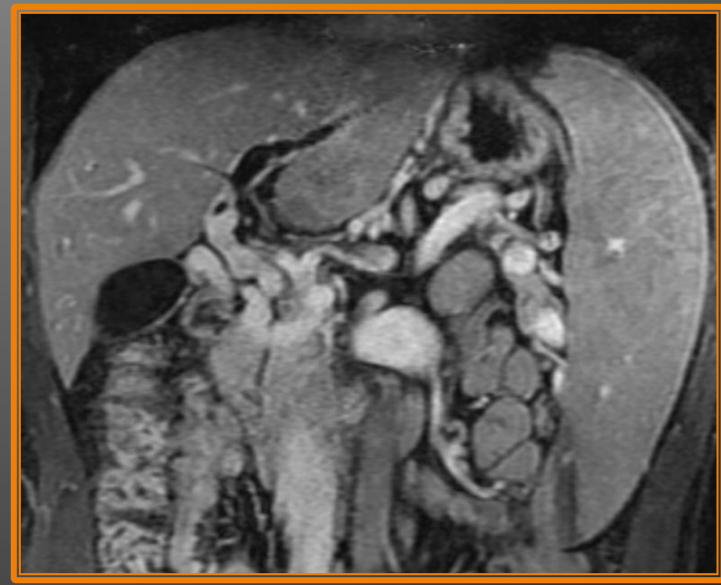
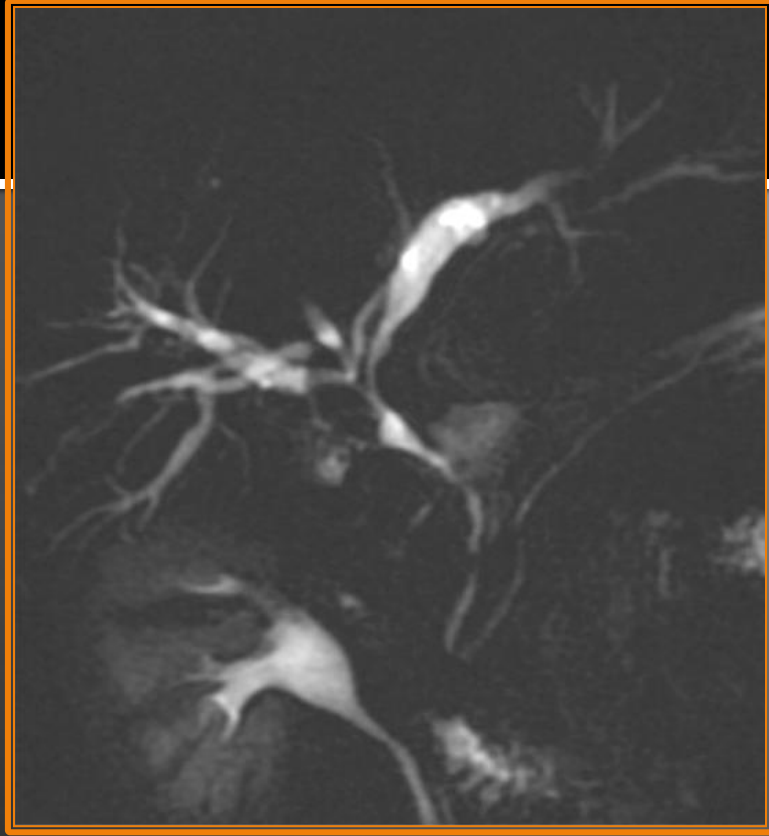
TYPE II

Bismuth I ou II : résection hépatocholédoque

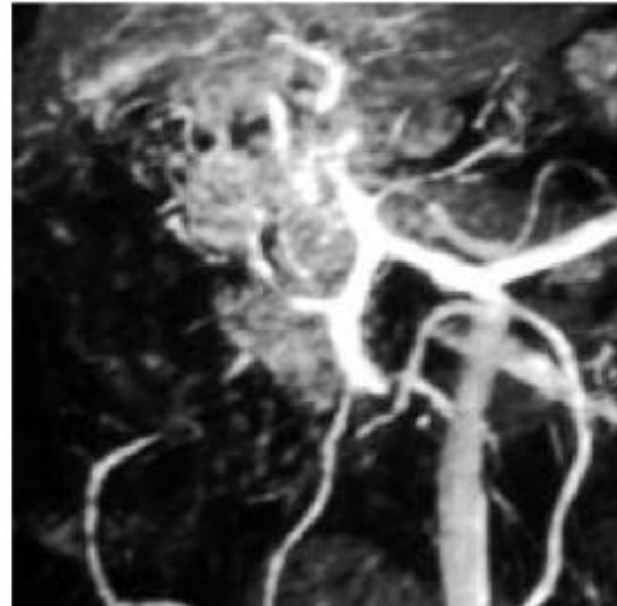
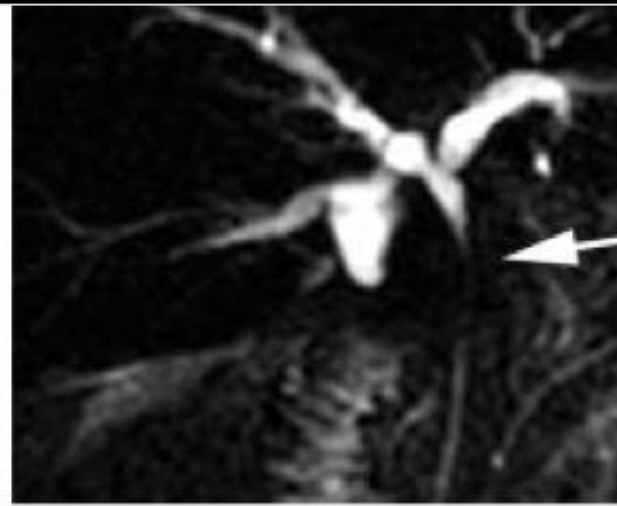
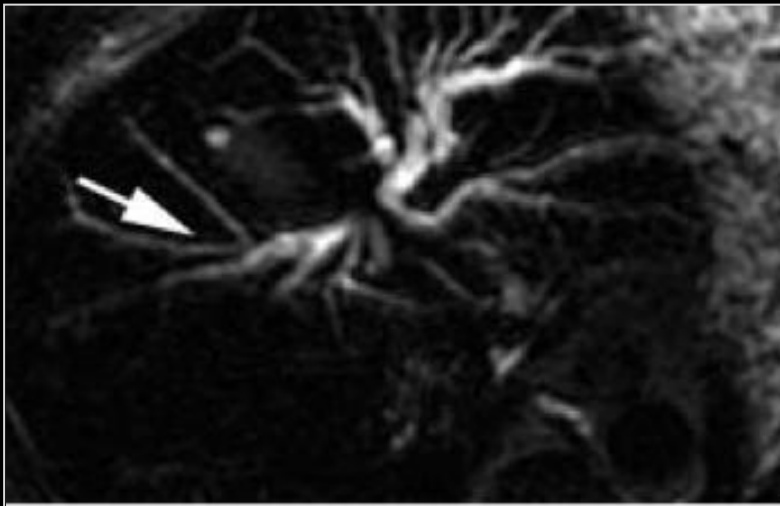


Tumeurs de Klatskin

Homme 64 ans
Ethylique
Ictère et dilatation VBIH en écho



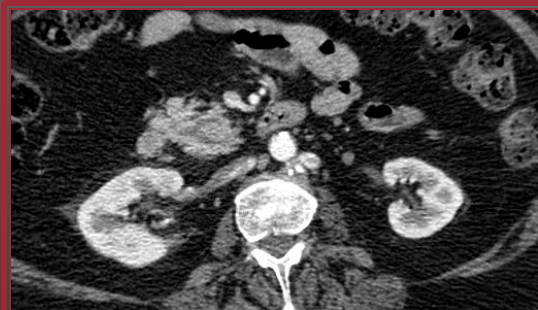
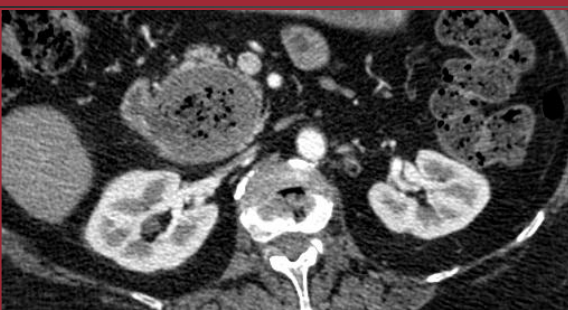
CAVERNOME PORTE

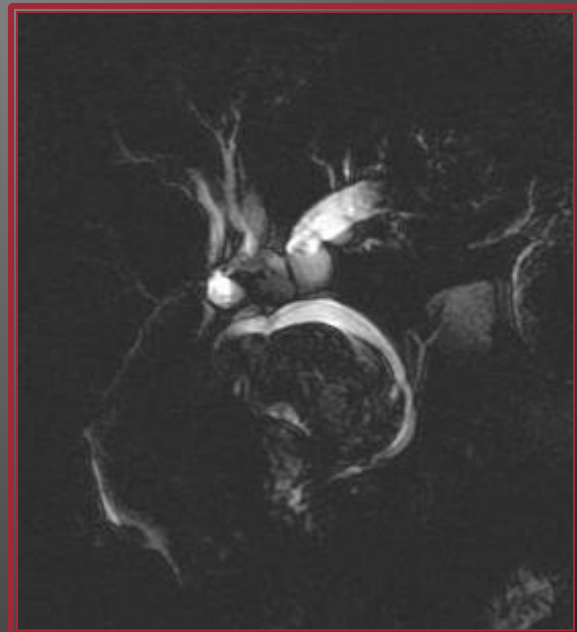
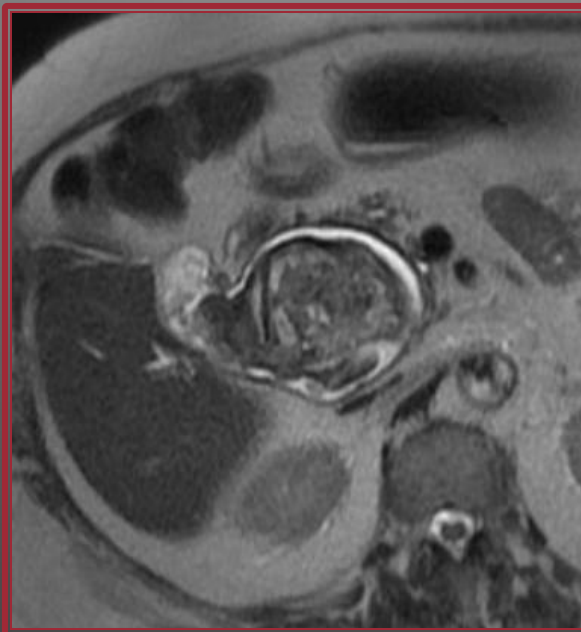
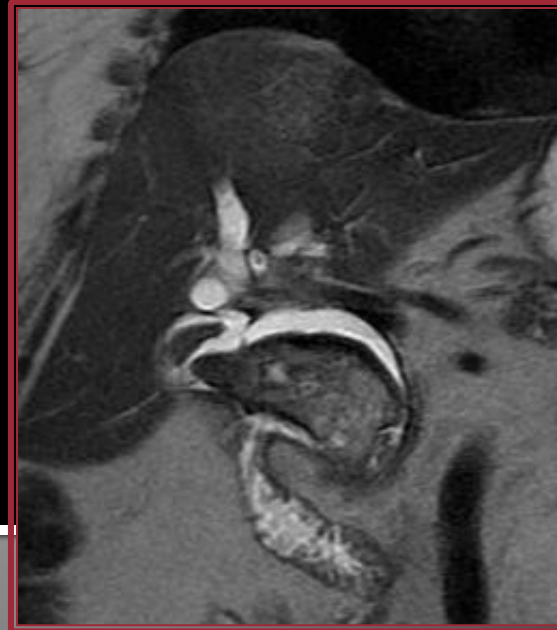


CAVERNOME VRAI !

Développement d'une masse fibreuse hilare au sein de la laquelle on distingue difficilement les varices cholédociennes **DD : cholangiocarcinome !**

Femme 75 ans
ATCD cholecystectomie



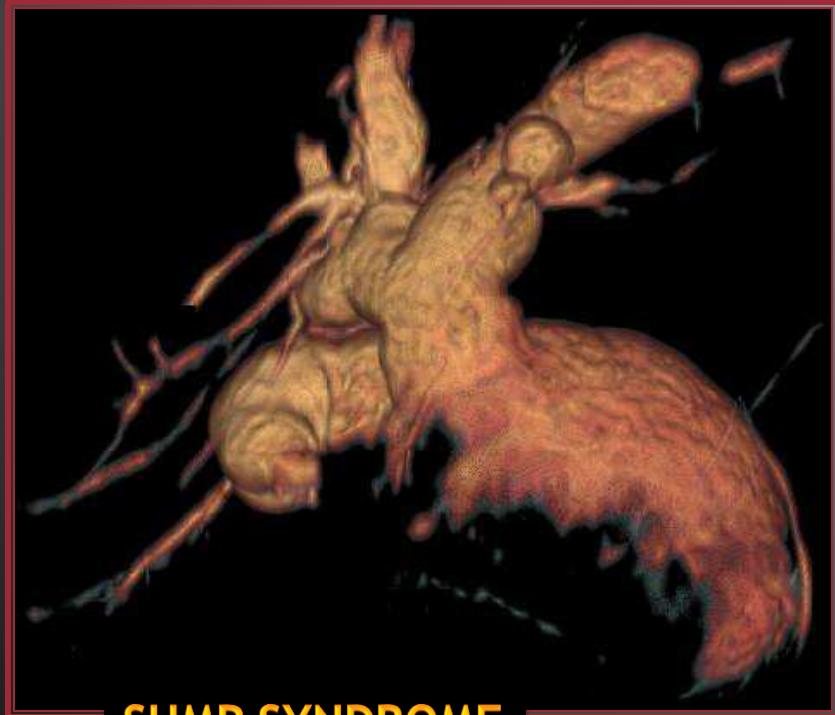
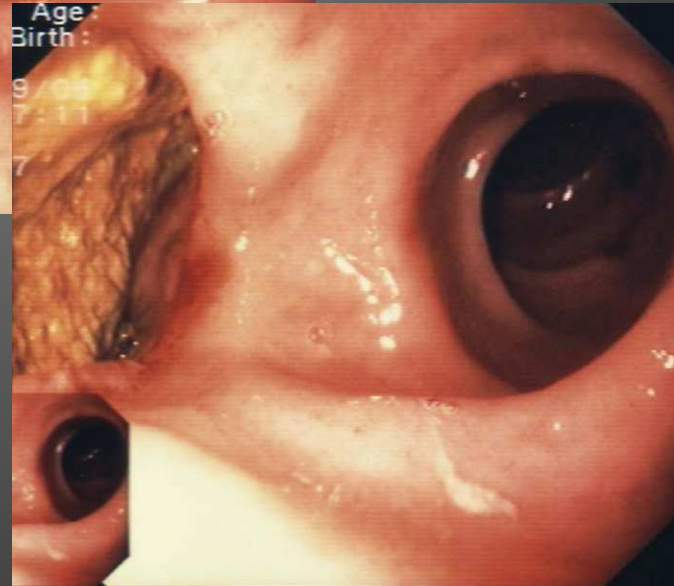




Age:
Birth:

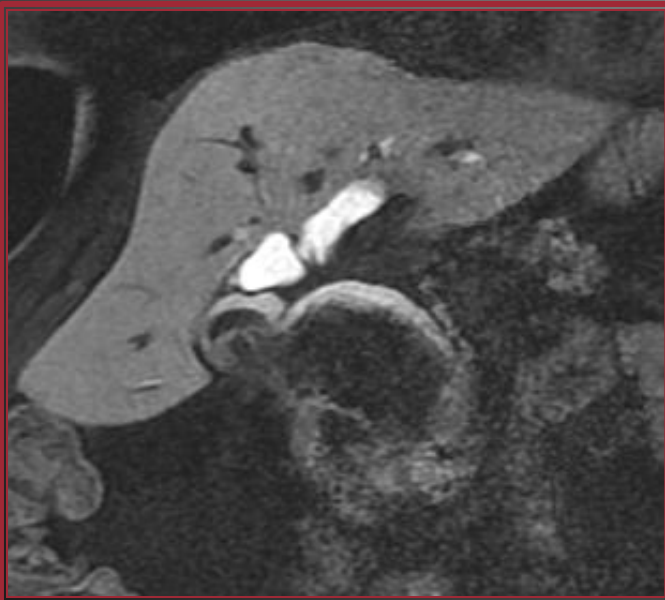
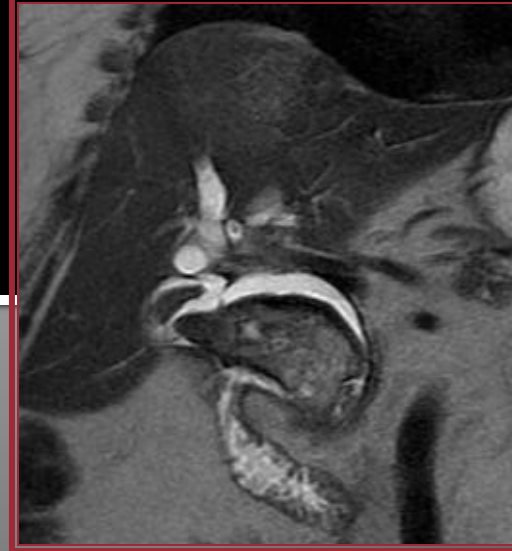
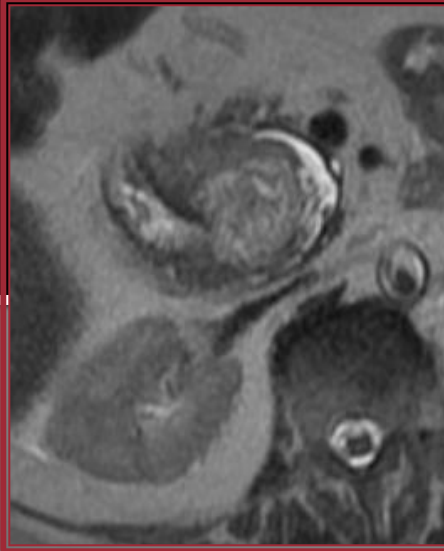
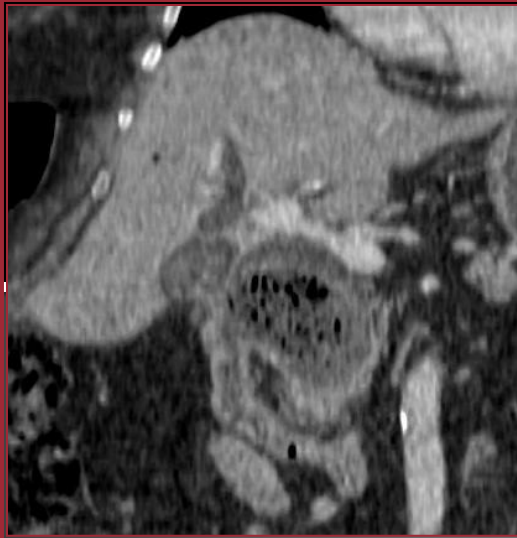


Age:
Birth:



SUMP SYNDROME

SUMP syndrome

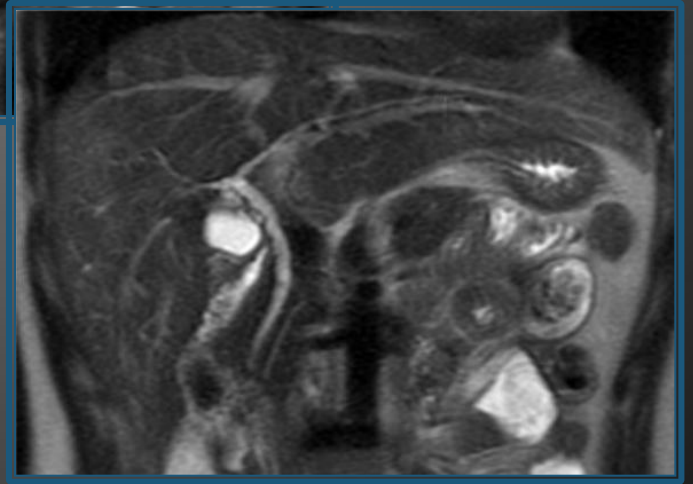
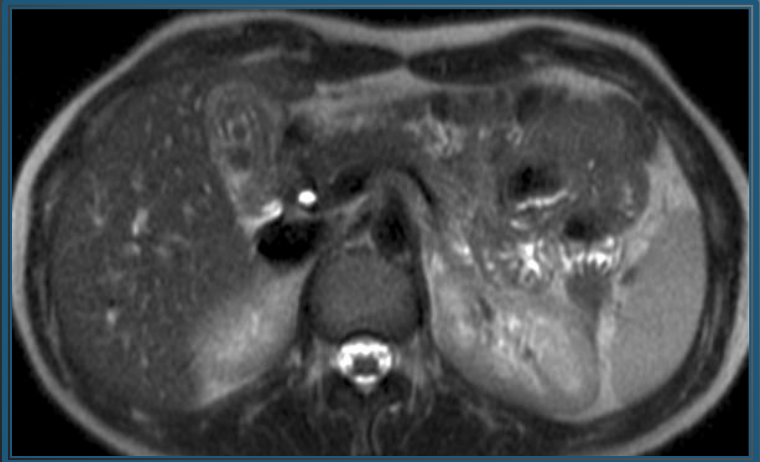
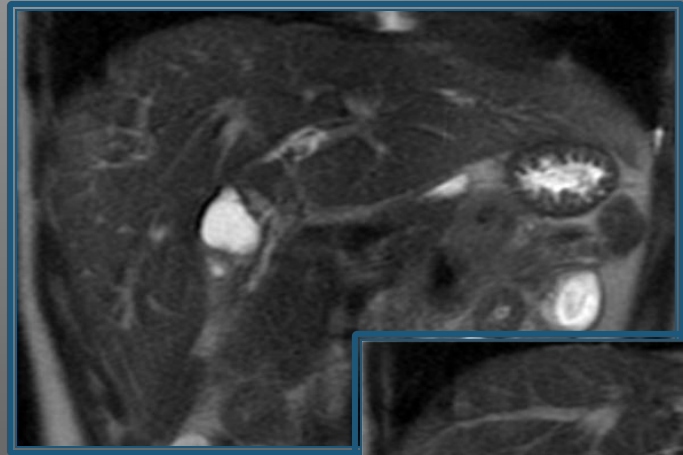
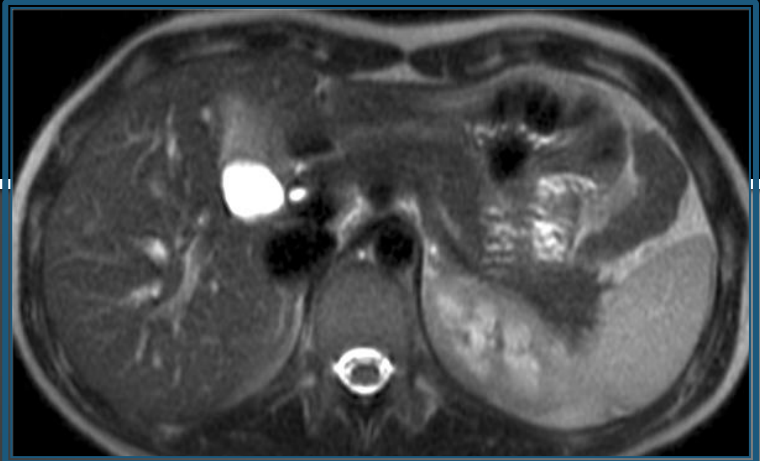
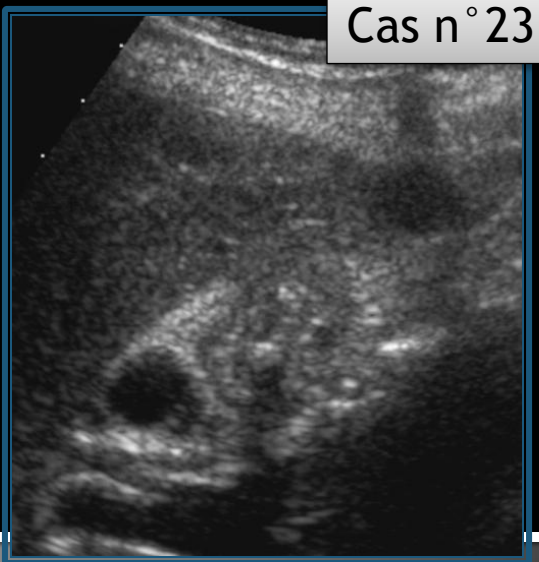


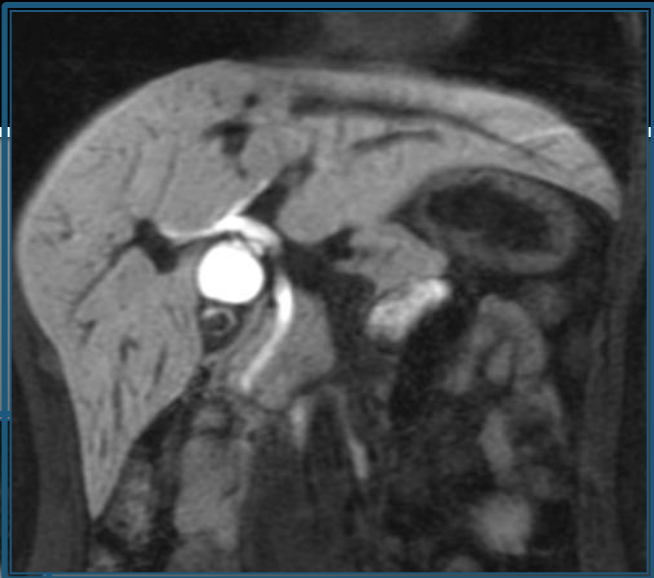
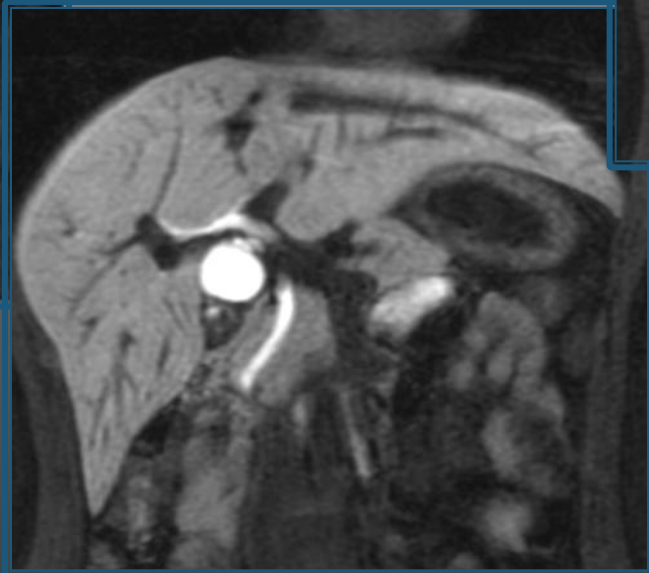
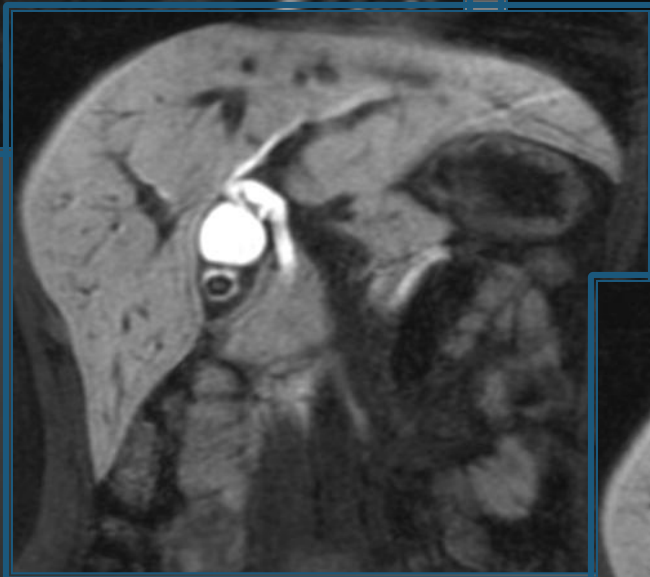
Complication des anastomoses cholédoco-duodénale

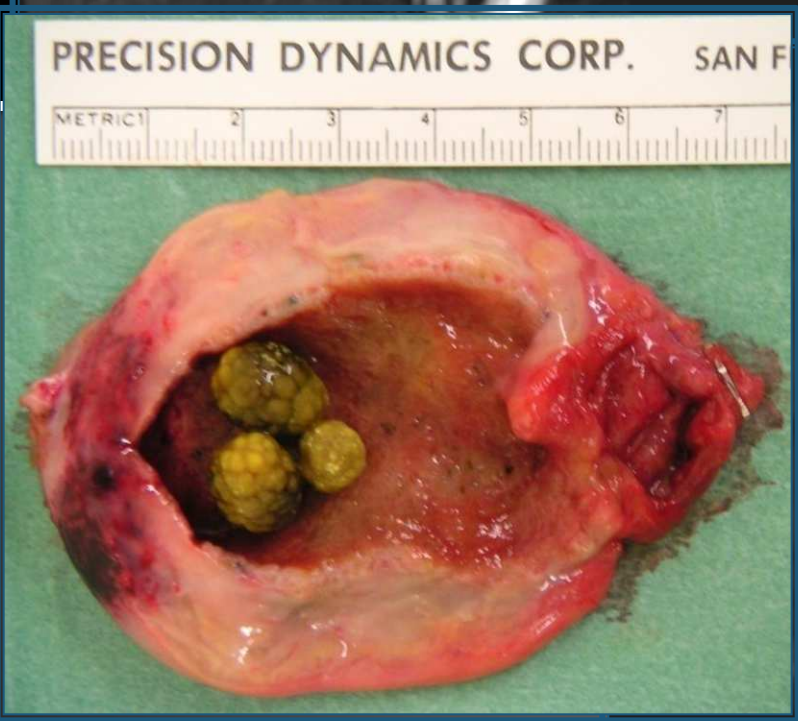
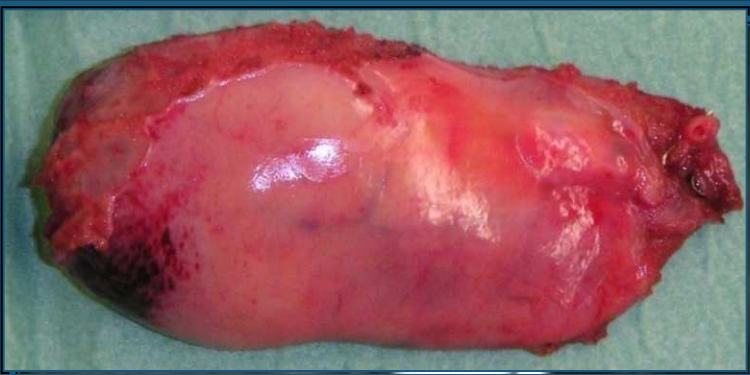
Obstruction biliaire et cholangitique ilaire à accumulation de débris et de matériel ingéré dans les canaux biliaires par reflux

- 0.14 à 1.3%

Femme 21 ans Cholecystites à répétition

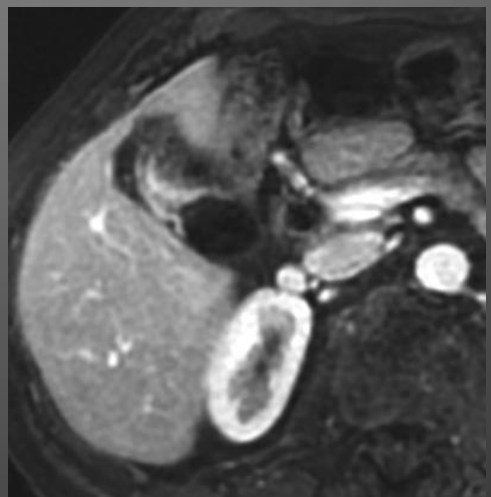
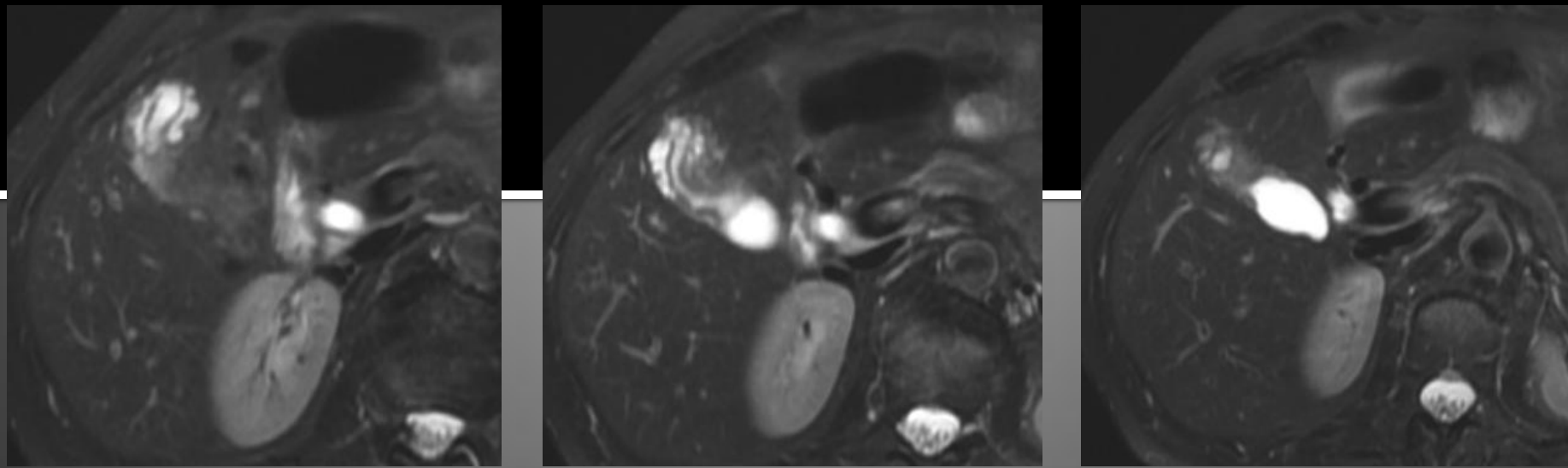






DIAPHRAGME VÉSICULAIRE

Suspicion de migration lithiasique



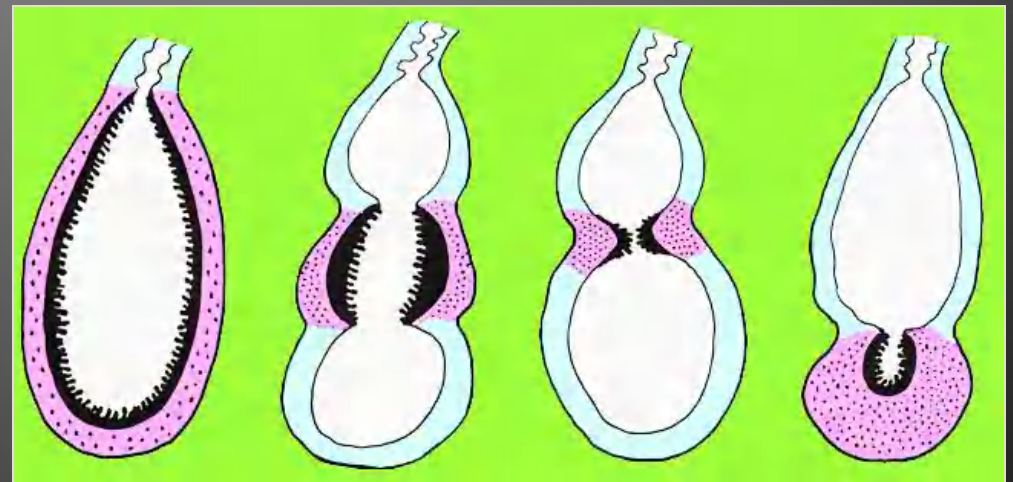
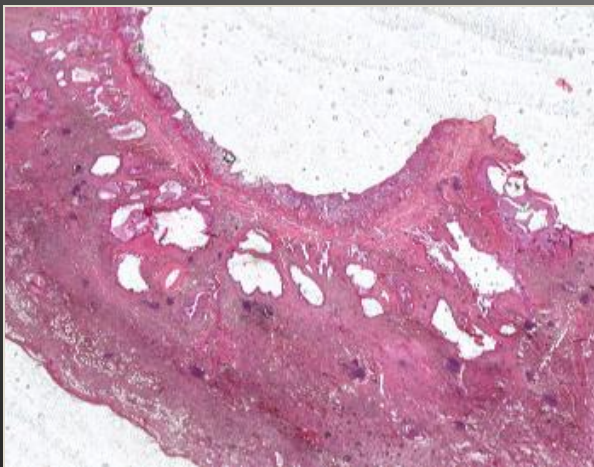
ADÉNOMYOMATOSE

Adénomyomatose

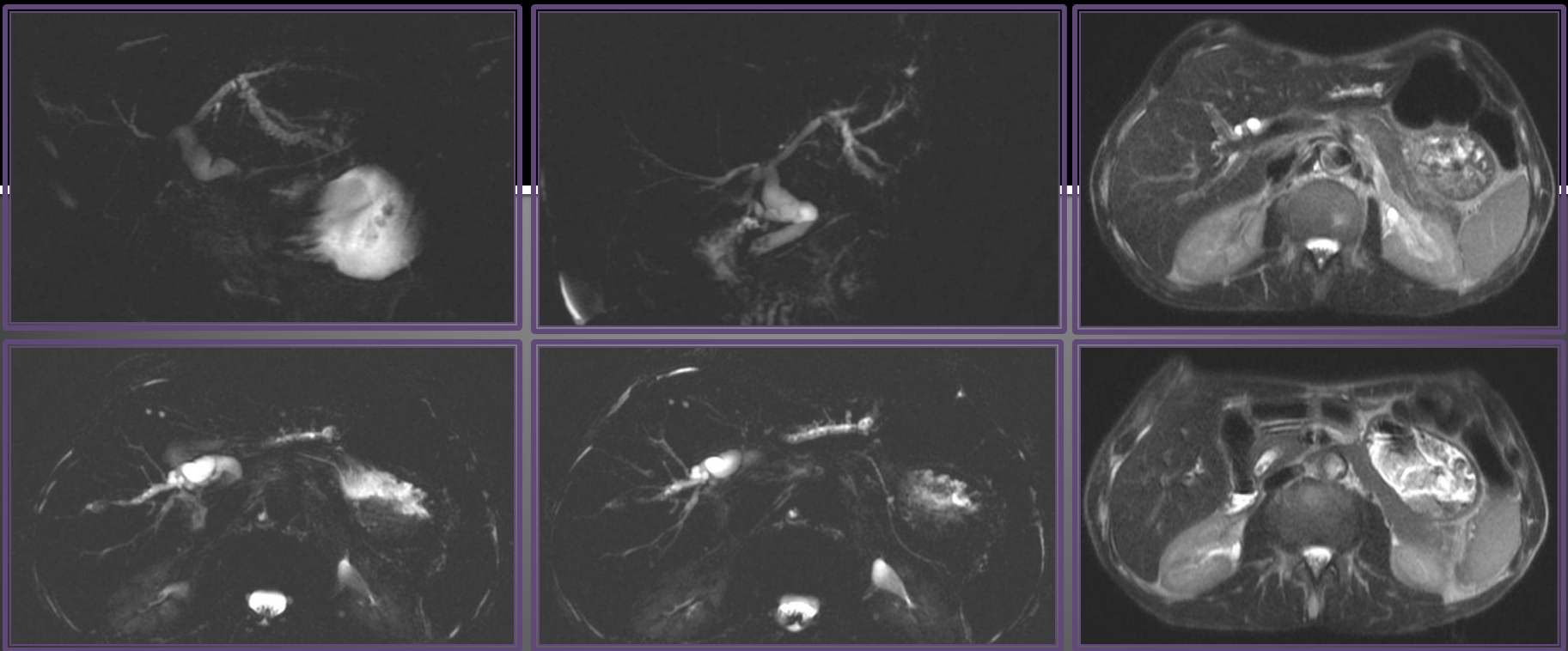
- **Fréquence** : 2 à 5 % des cholécystectomies
- **Asymptomatique**, maladie bénigne et non inflammatoire
- **Diagnostic** : Diverticules de ROKITANSKY-ASCHOFF
- 3F / 1H

- **3 formes** :

- diffuse
- segmentaire : annulaire
- localisée : fundus



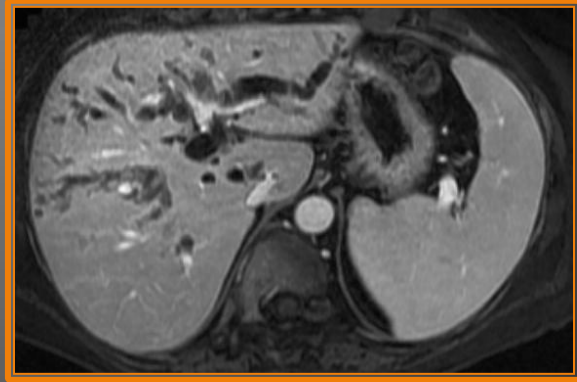
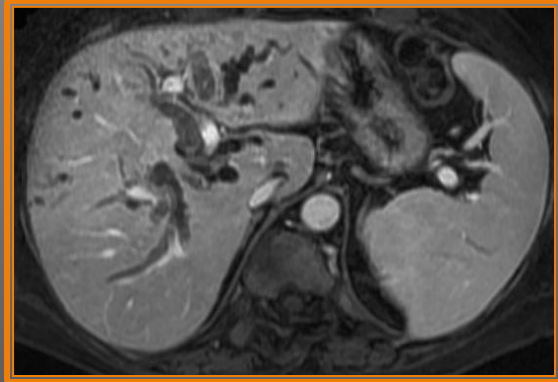
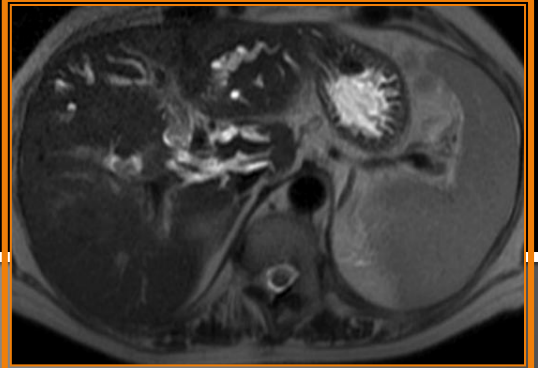
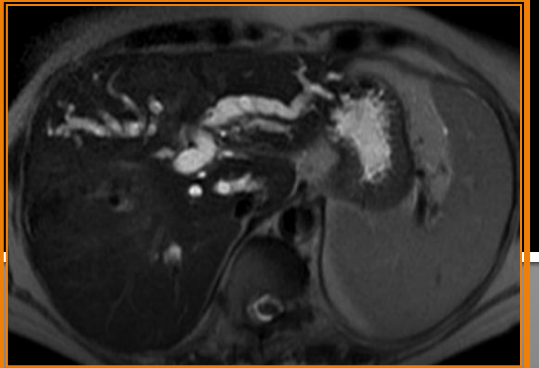
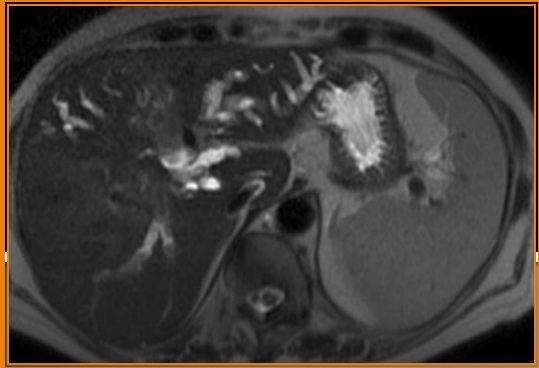
Femme 65 ans
ATCD de cholecystectomie
Douleurs abdo



CALCULS DES VBIH



Femme 51 ans
AEG, Ictère



MÉTASTASES ENDO BILIAIRES

