fibrose
bénigne
et
fibrose
maligne

???
!!!!

POINTS ESSENTIELS

- **bases physiopathologiques du processus de " réparation - fibrose "**
- **cinétique de rehaussement du (des) tissus fibro-inflammatoires (PC non spécifiques)**
- **tissu(s) fibro-inflammatoire(s) et signal en IRM pondérée T2**
- **applications à la caractérisation lésionnelle en pathologie digestive :hépato-biliaire , pancréatique , tube digestif**

Bases physiopathologiques

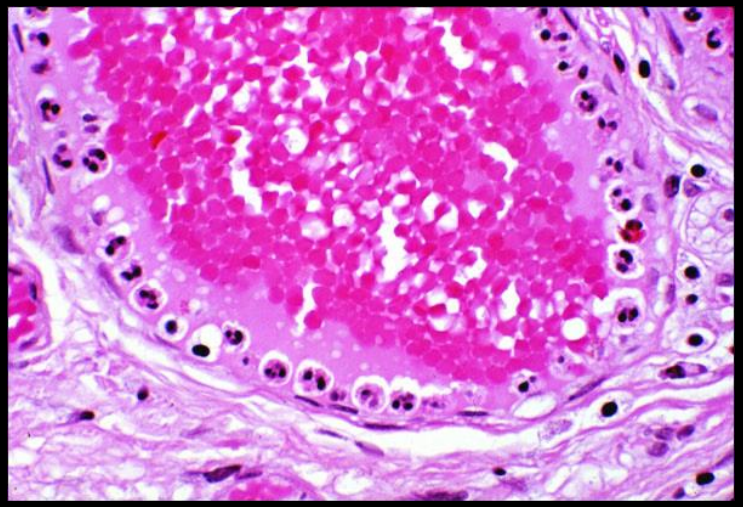
Inflammation aiguë

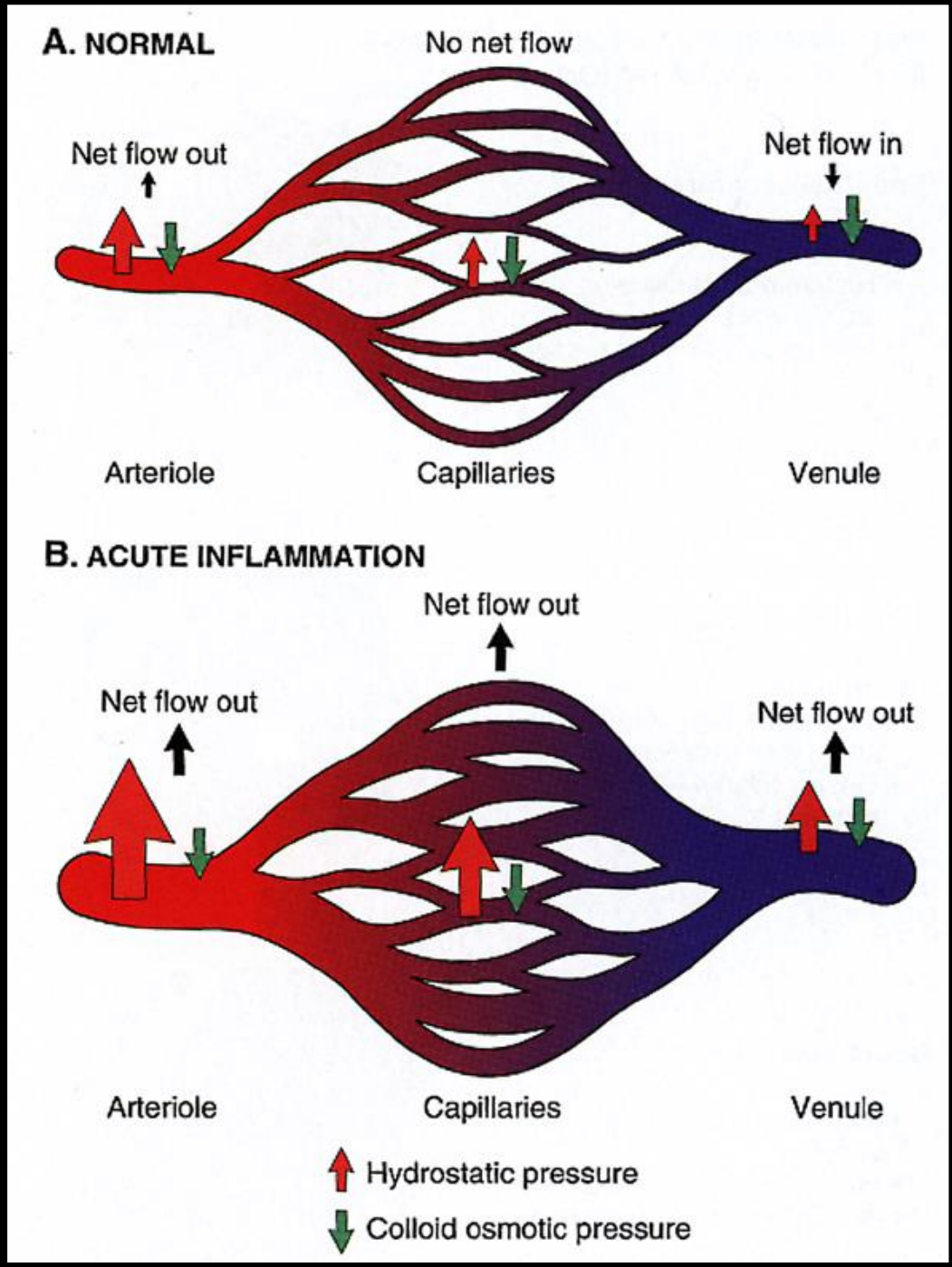
vasodilatation

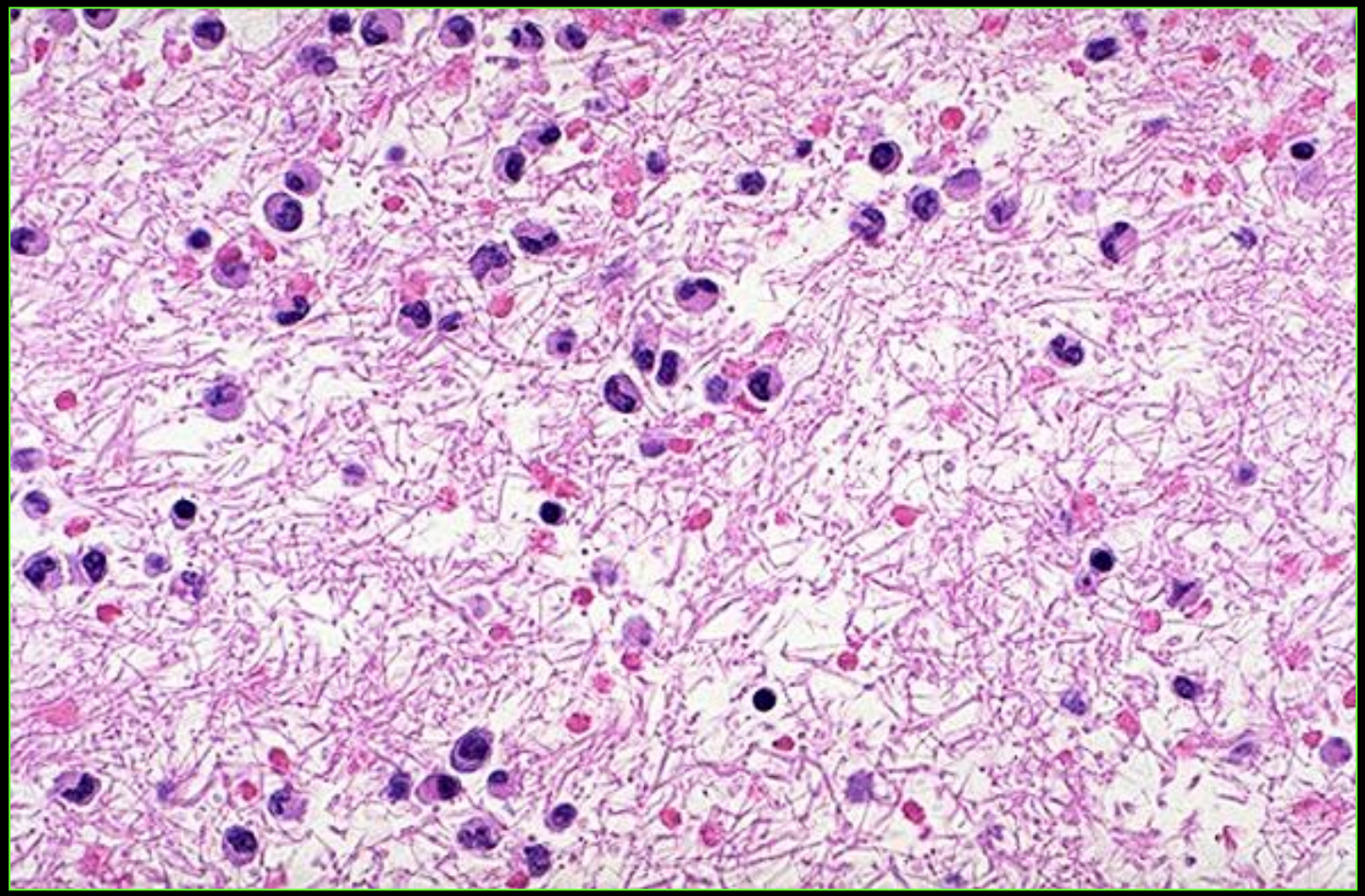
oedéme

exsudat+++

leucocytes





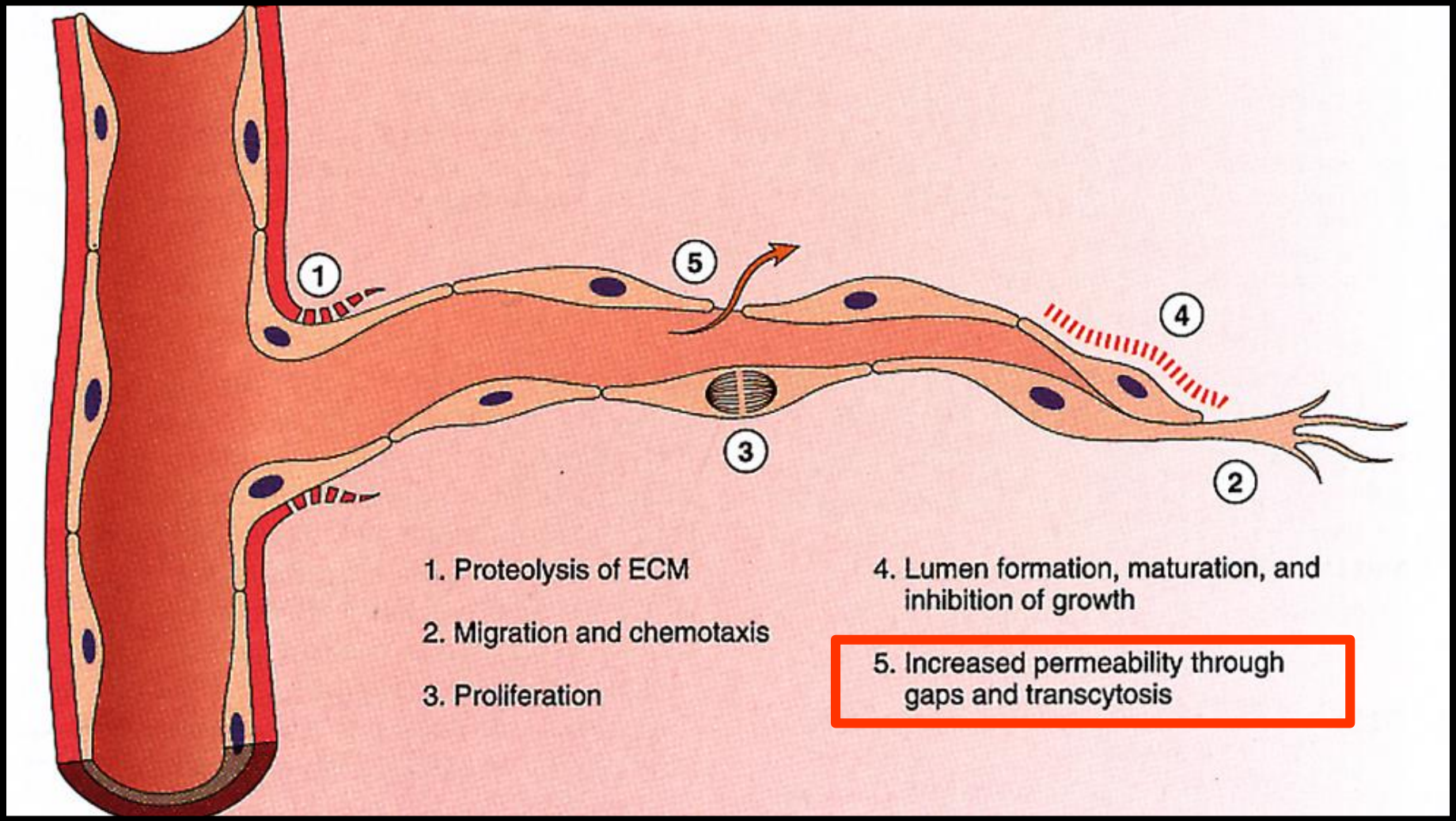


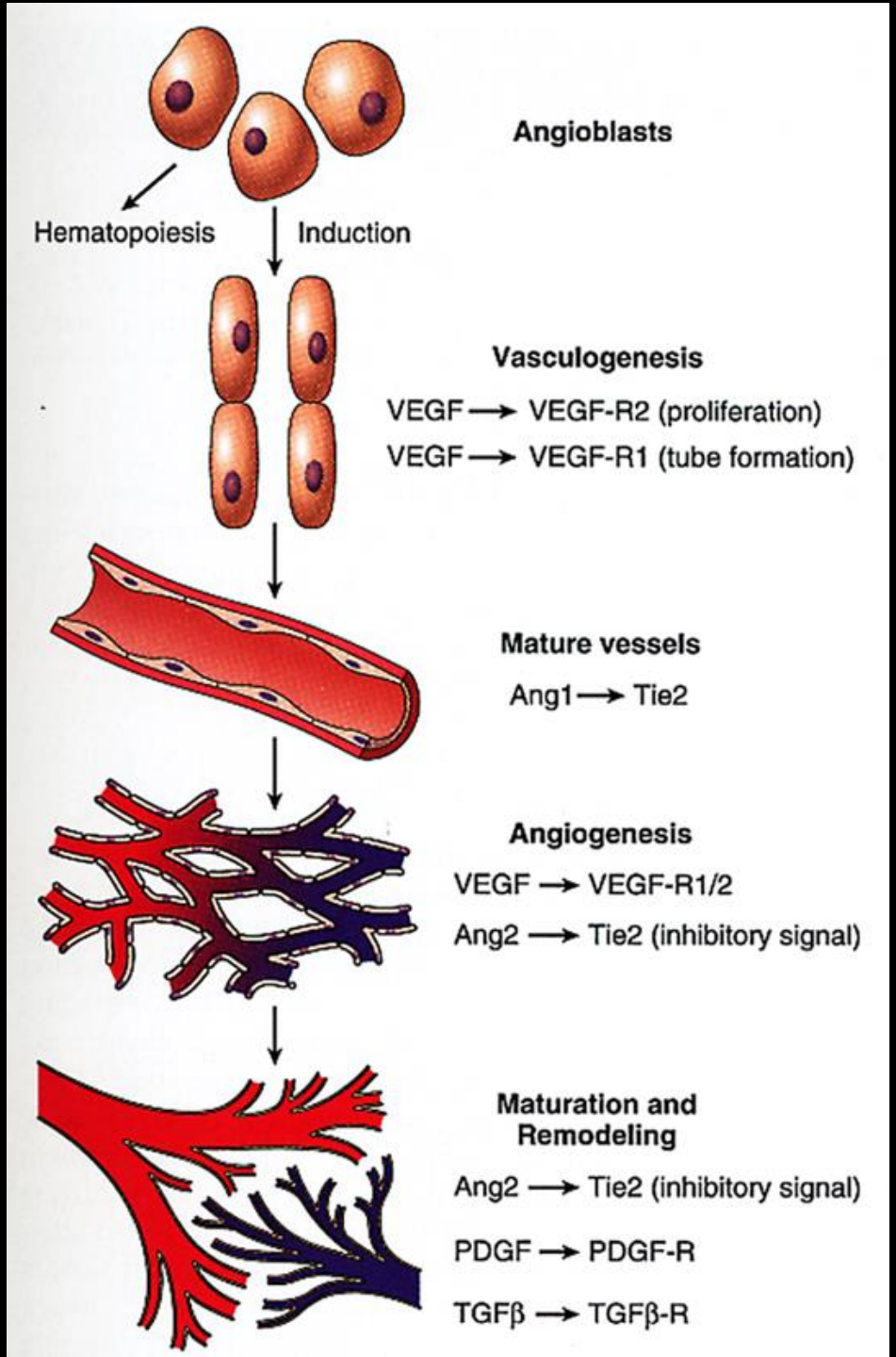
1) rehaussement par diffusion des PC non spécifiques dans l ’oedéme

2) hypersignal T2 du à l ’oedéme

Inflammation aiguë

angiogénése



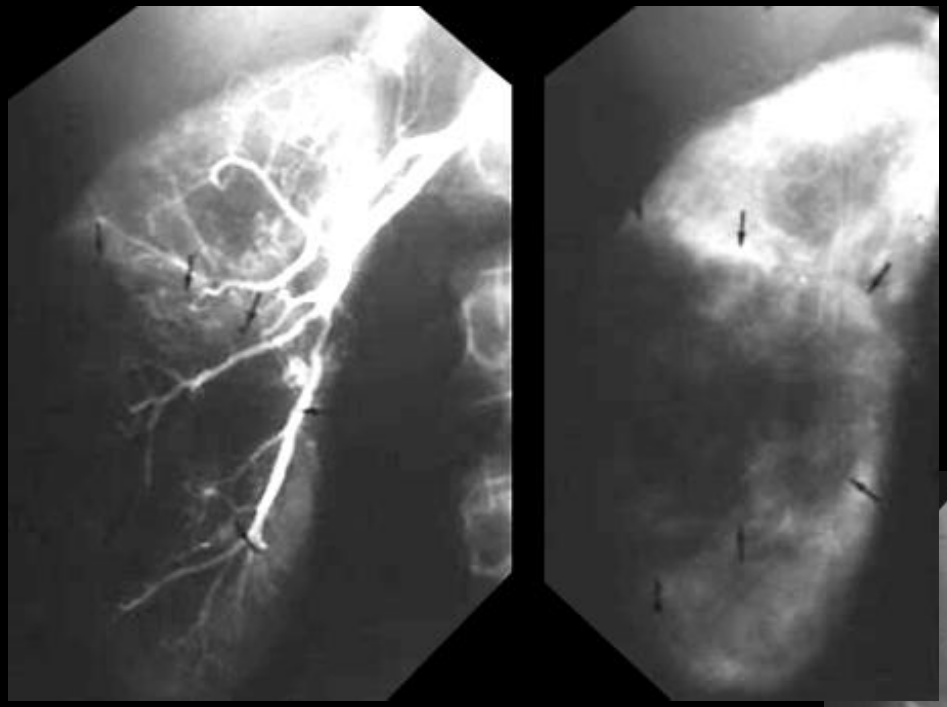


angiogénése "bénigne" vs "maligne"

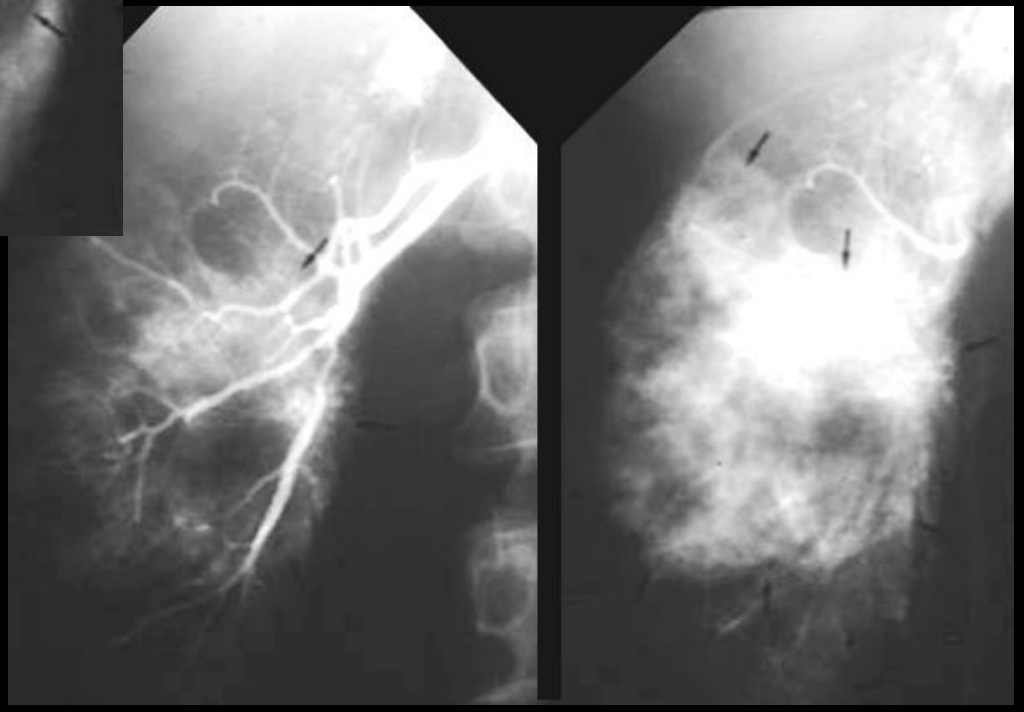
recrutement de cellules péri-endothéliales :

° **péricytes** pour les petits capillaires;

°**cellules musculaires lisses** pour les plus gros vaisseaux



avant angiotensine

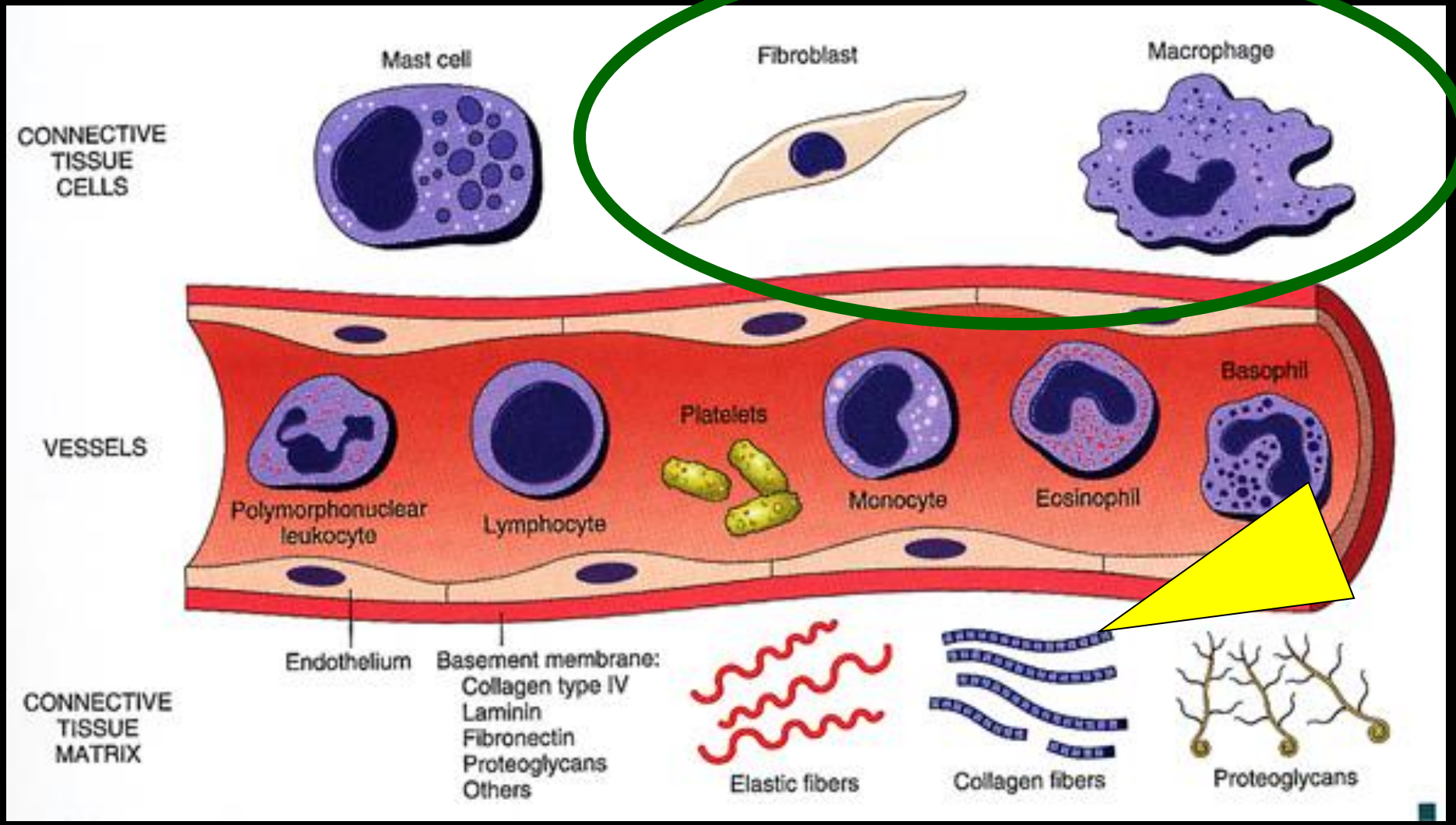


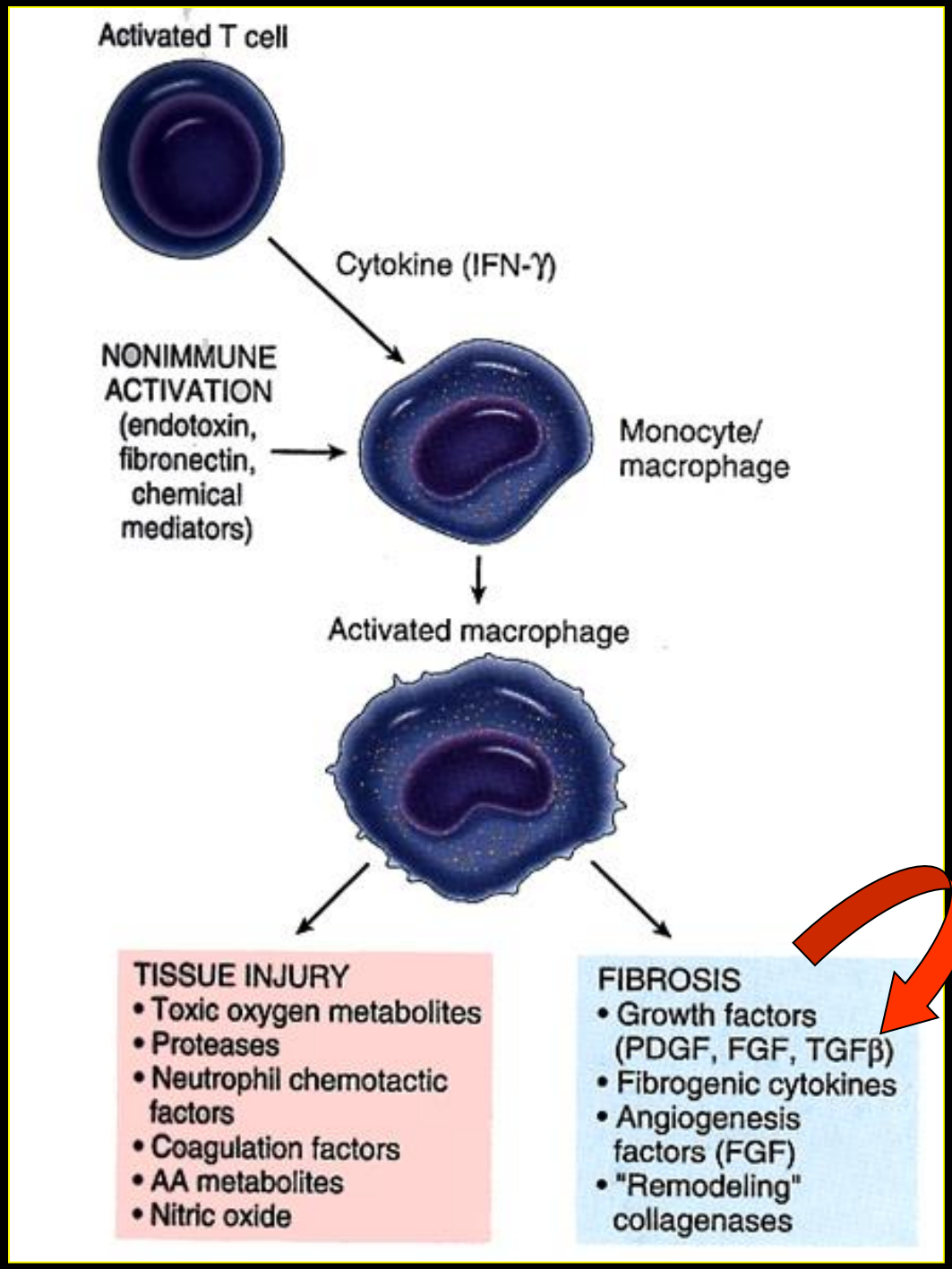
après angiotensine

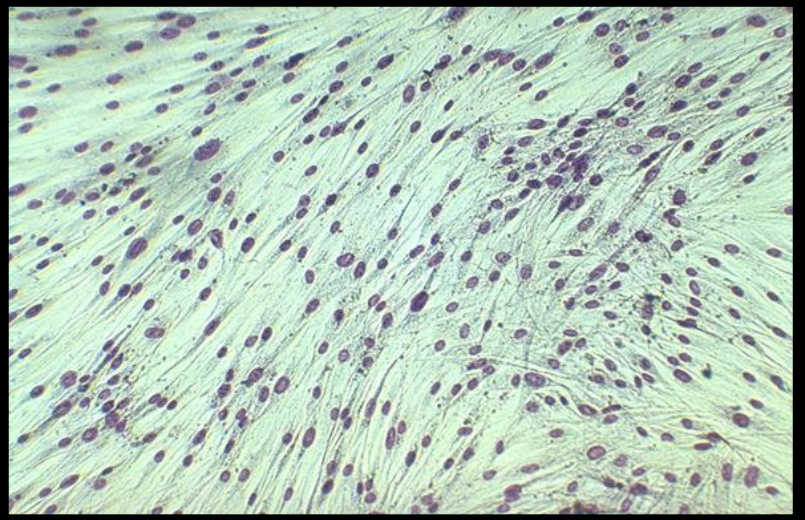
pharmaco-angiographie

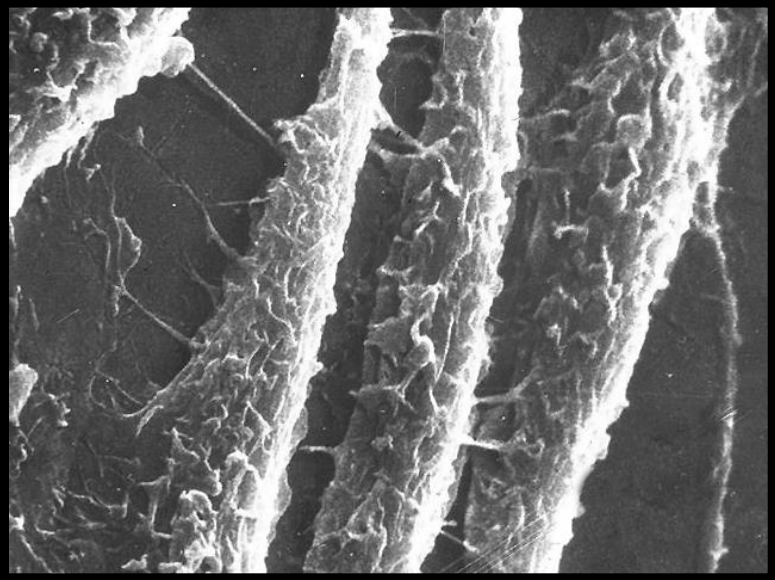
les néovaisseaux de l'angiogénèse tumorale sont dépourvus de musculature lisse et ne répondent pas aux vasoconstricteurs

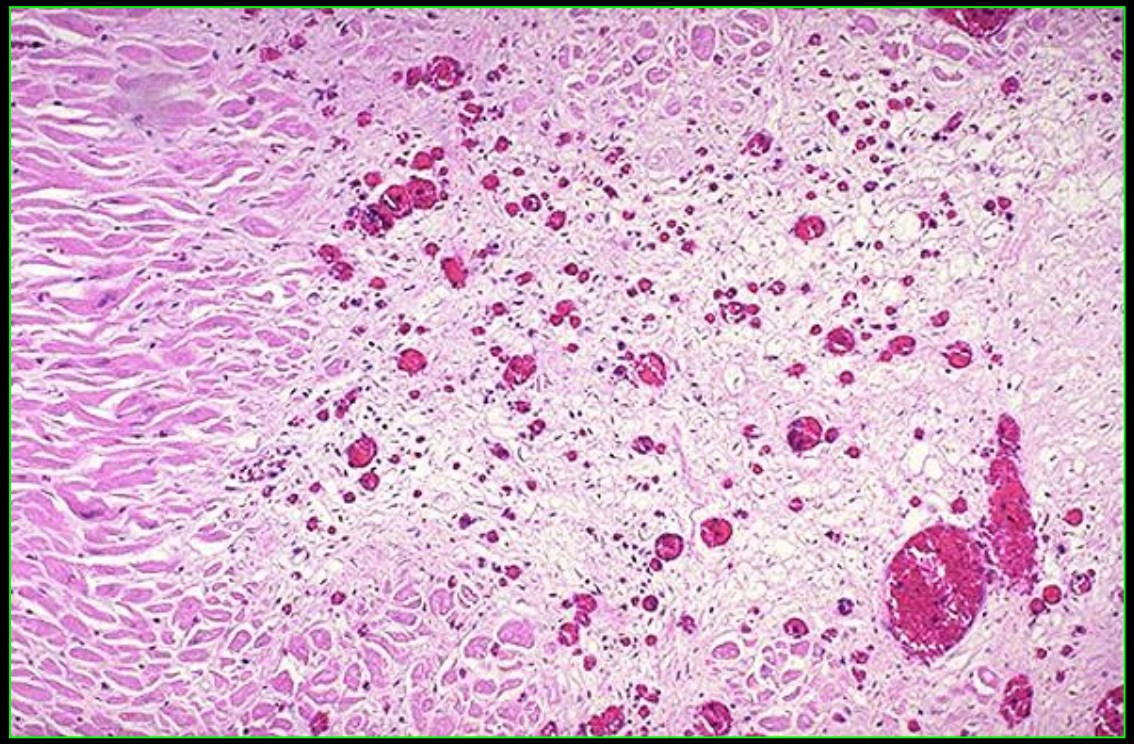
Inflammation chronique



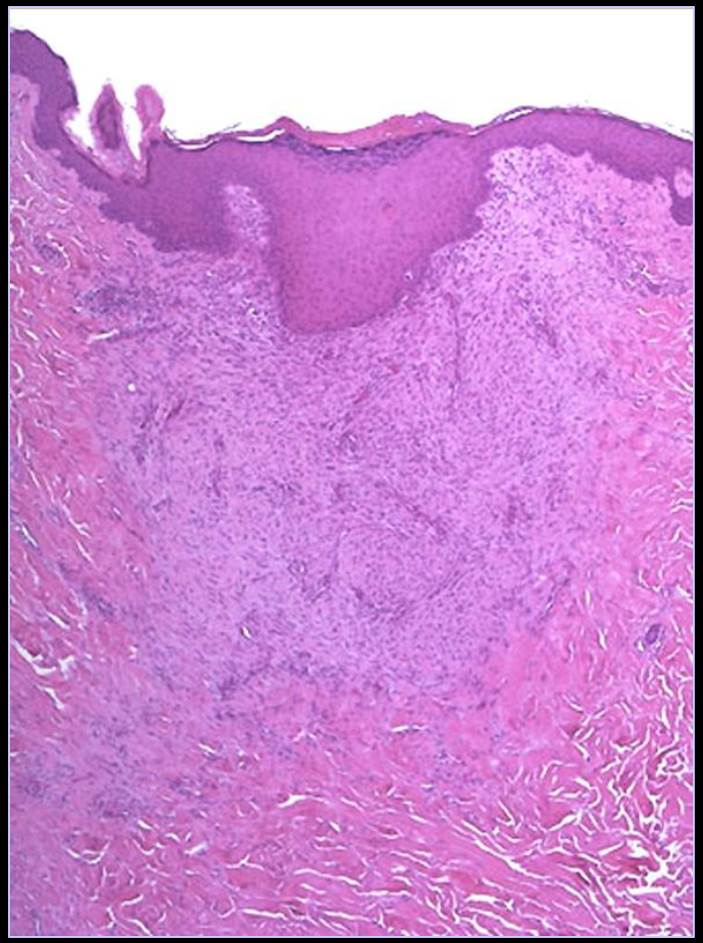

Activated T cell
Cytokine (IFN-γ)
NONIMMUNE ACTIVATION (endotoxin, fibronectin, chemical mediators)
Monocyte/ macrophage
Activated macrophage
TISSUE INJURY
• Toxic oxygen metabolites
• Proteases
• Neutrophil chemotactic factors
• Coagulation factors
• AA metabolites
• Nitric oxide
FIBROSIS
• Growth factors (PDGF, FGF, TGFβ)
• Fibrogenic cytokines
• Angiogenesis factors (FGF)
• "Remodeling" collagenases



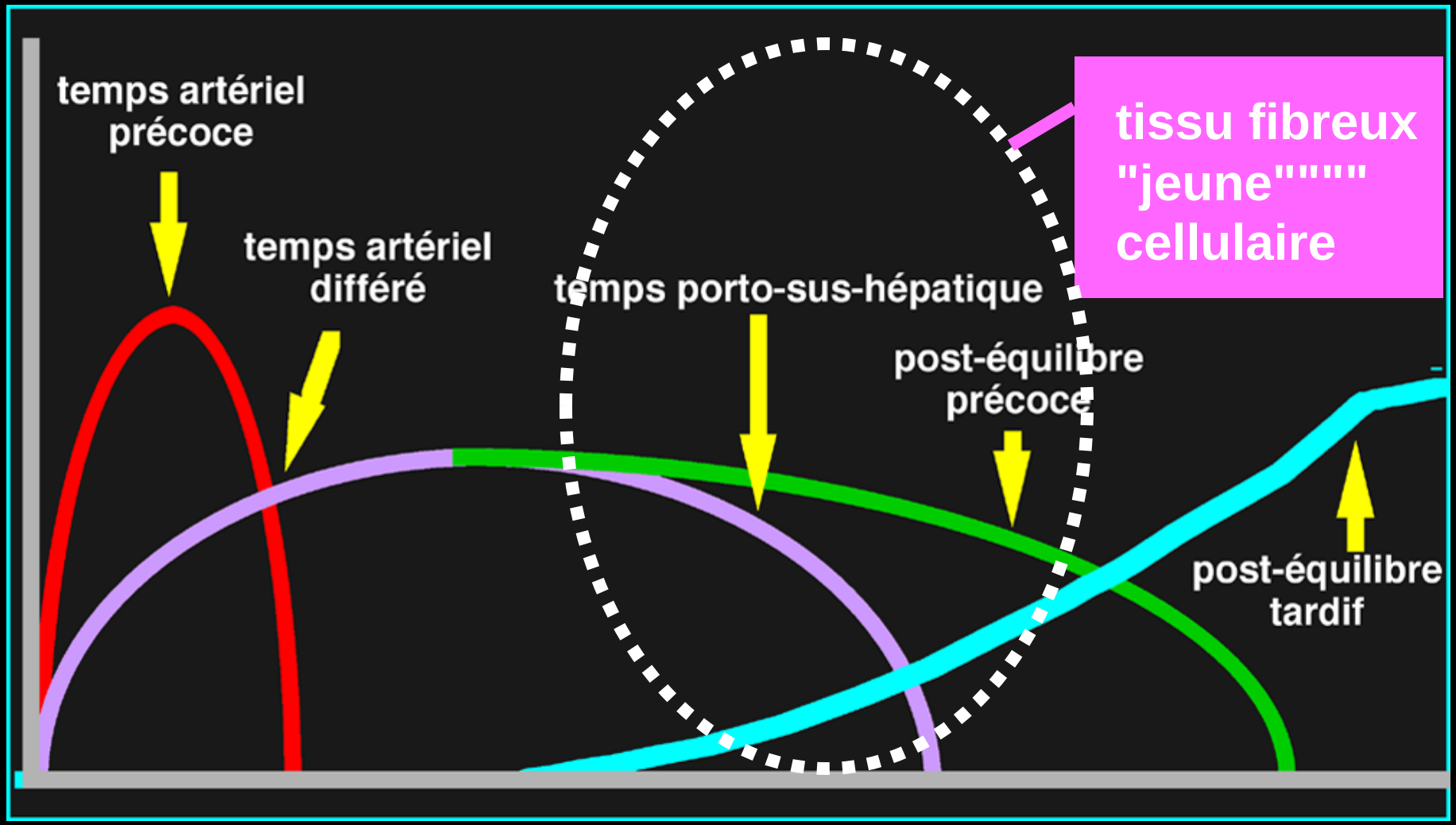




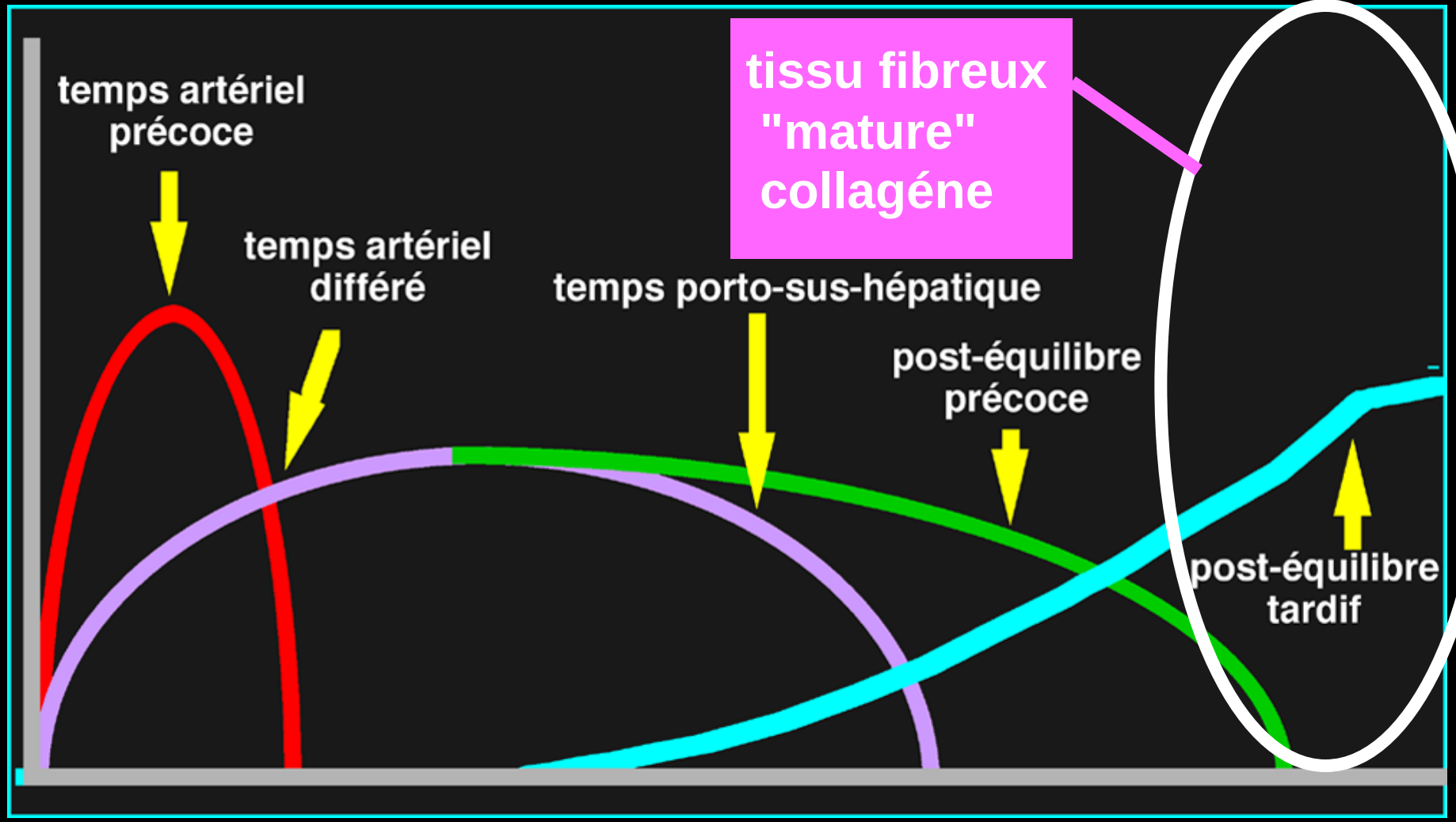
infarctus du myocarde



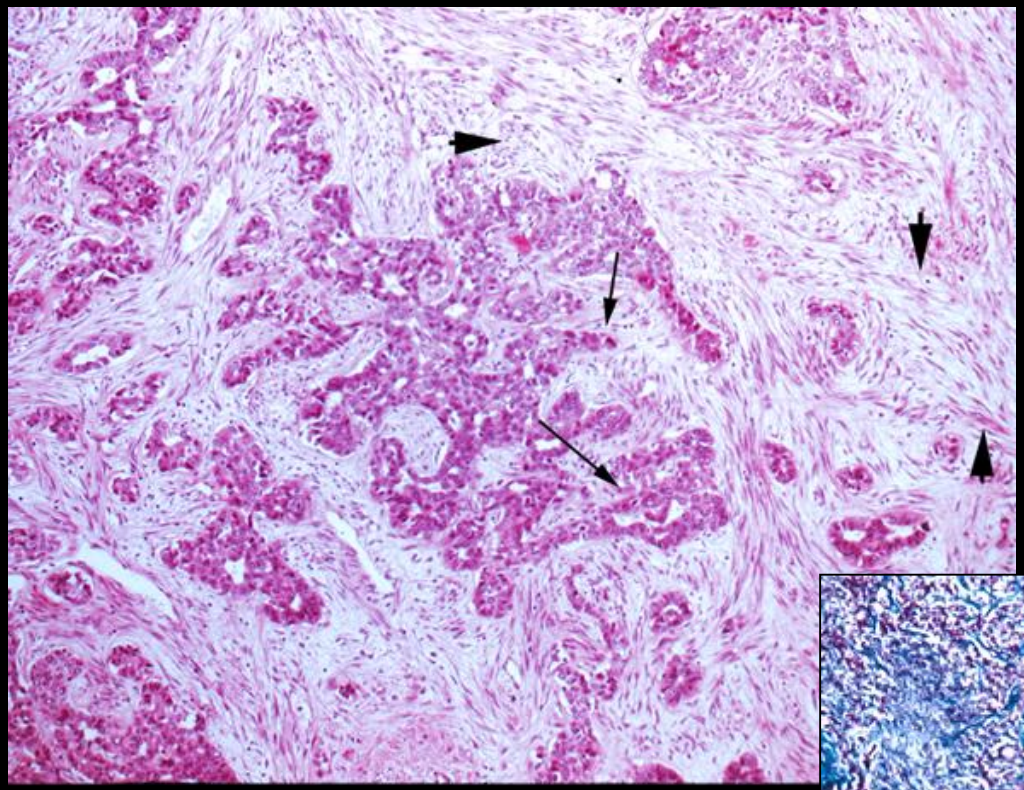
fibrose après
biopsie cutanée



cinétique de rehaussement du(des) tissu(s) fibro-inflammatoires



cinétique de rehaussement du(des) tissu(s) fibro-inflammatoires



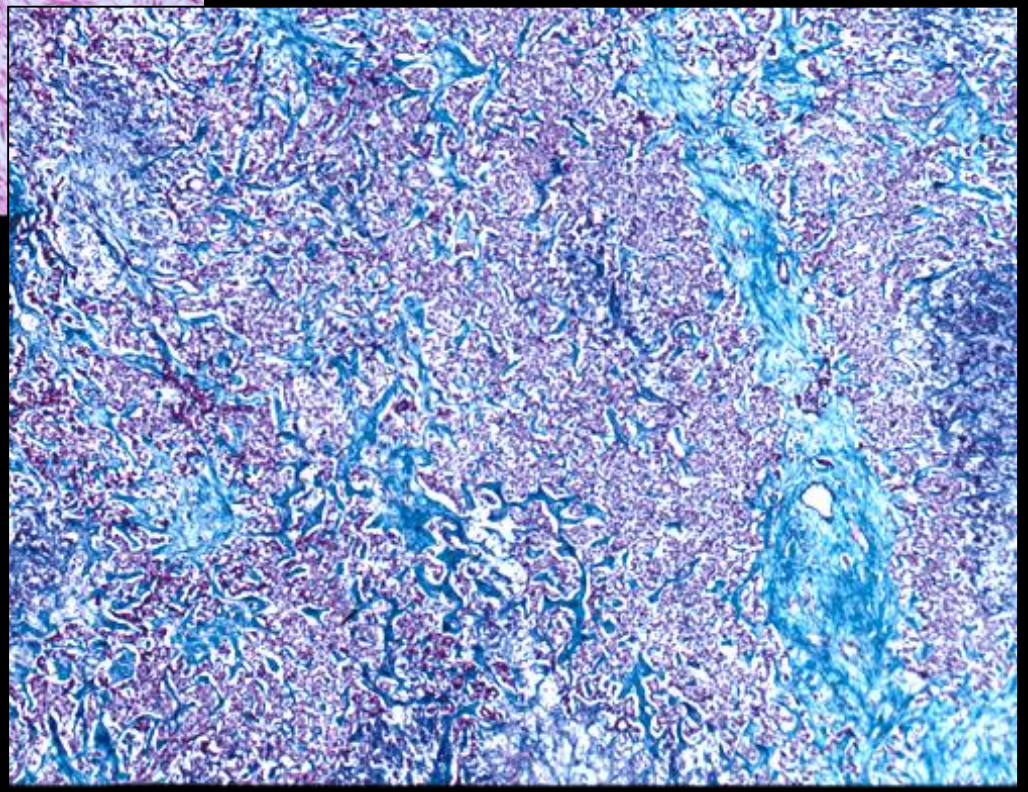
HES

trichrome de Masson

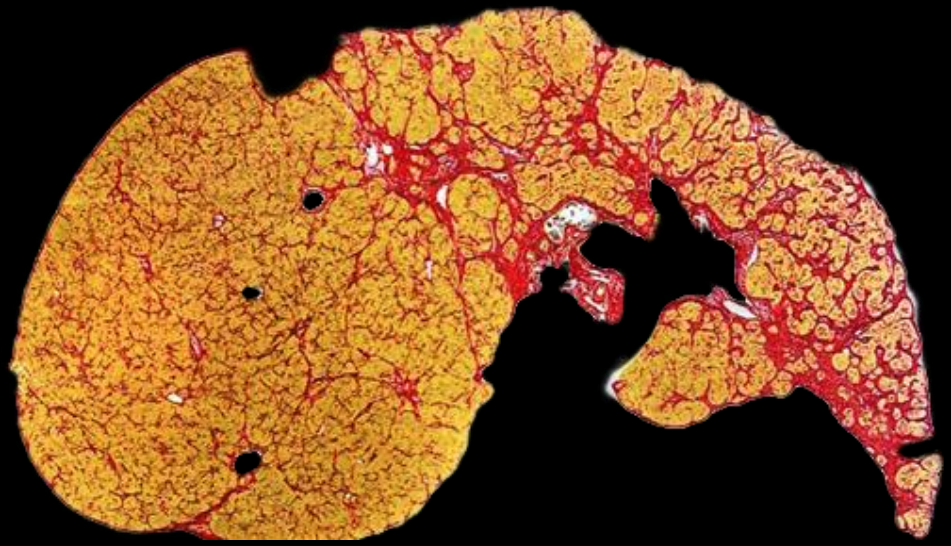
collagéne type I

bleu d ’aniline

vert Lumiére



cholangiocarcinome périphérique

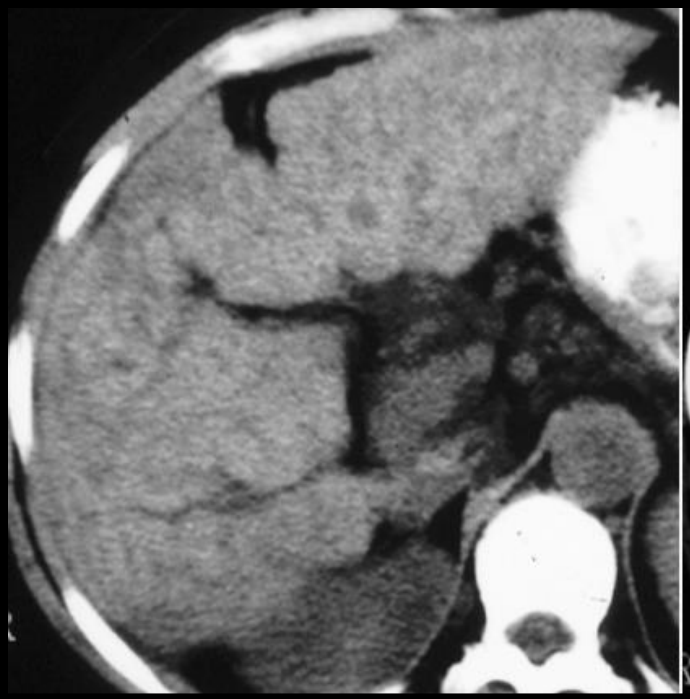


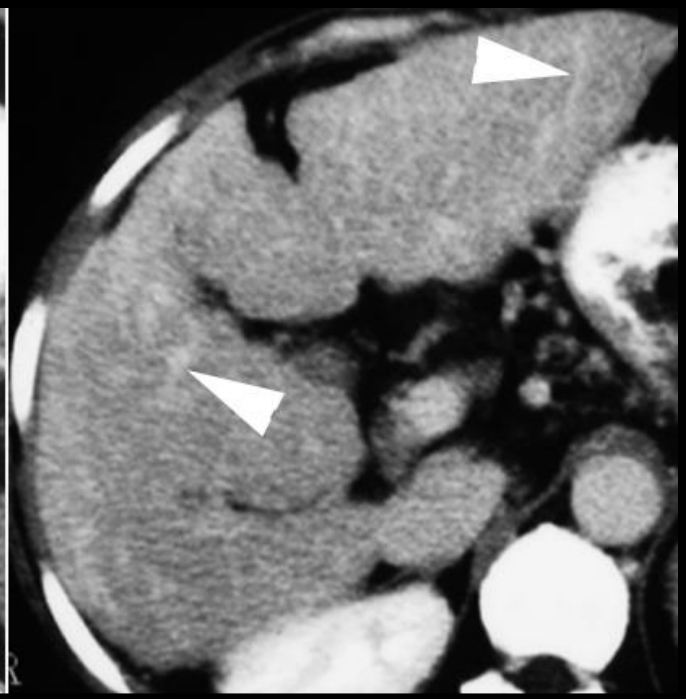
cirrhose biliaire primitive

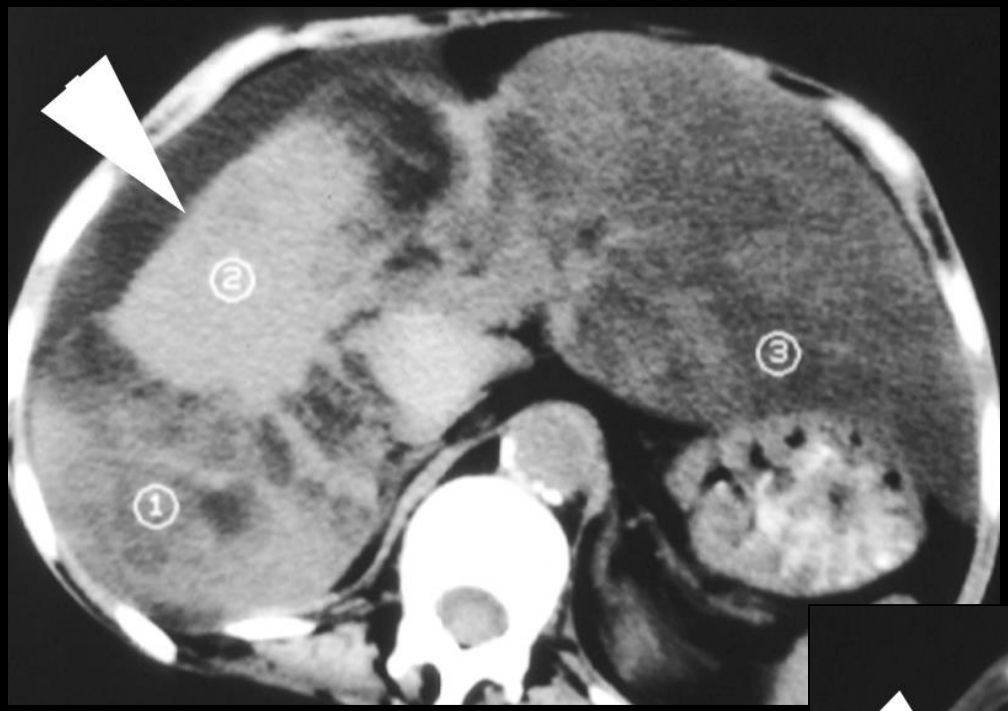
rouge Sirius

collagéne type I

collagéne type III

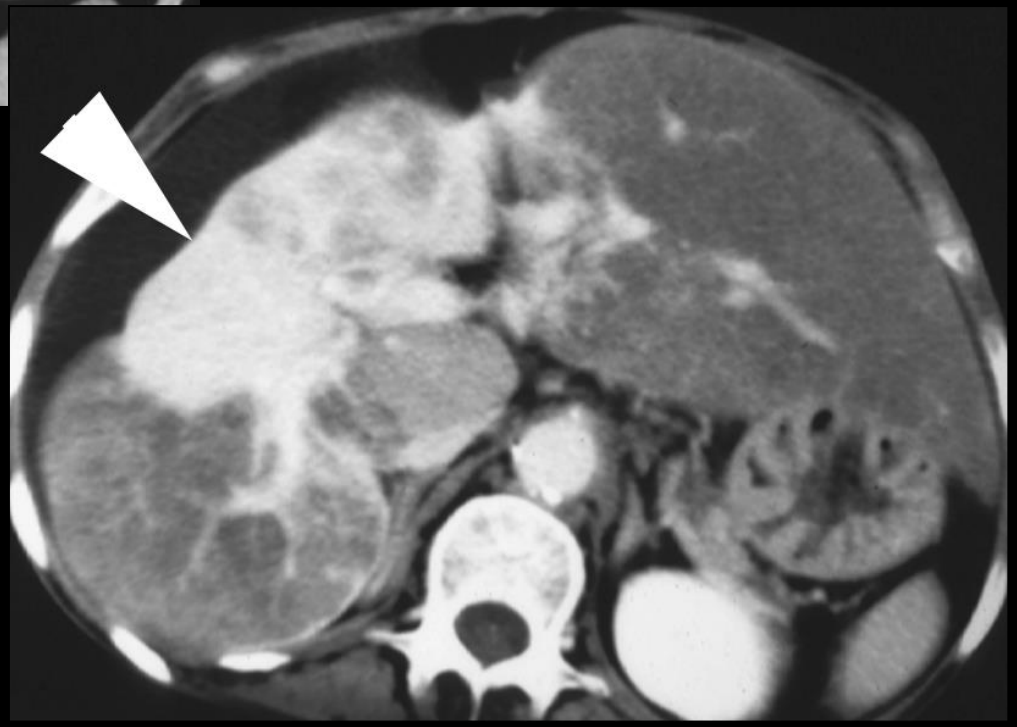




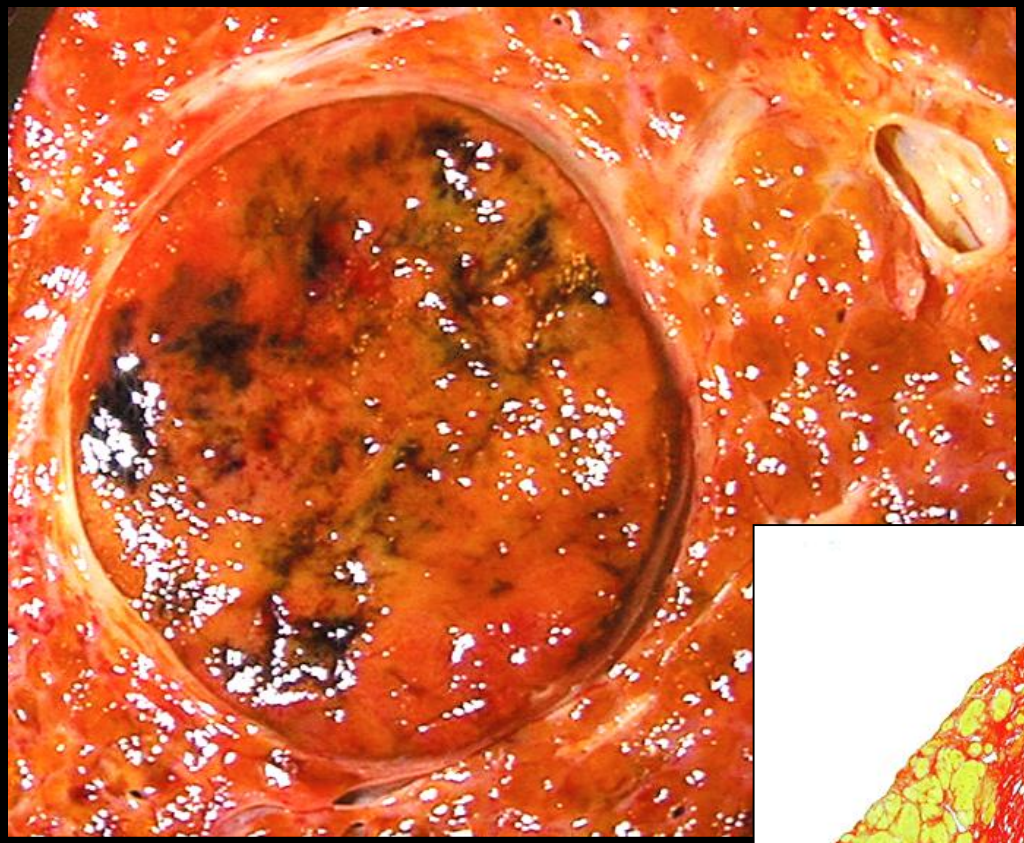


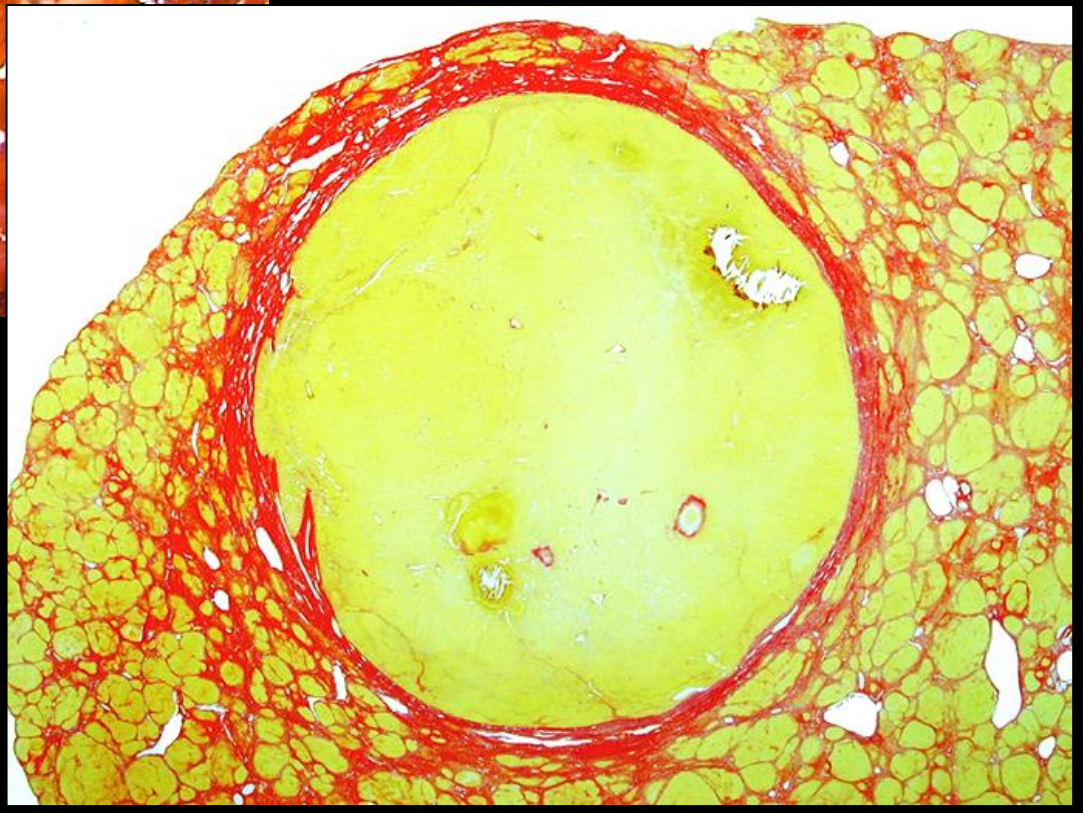
stéato-cirrhose

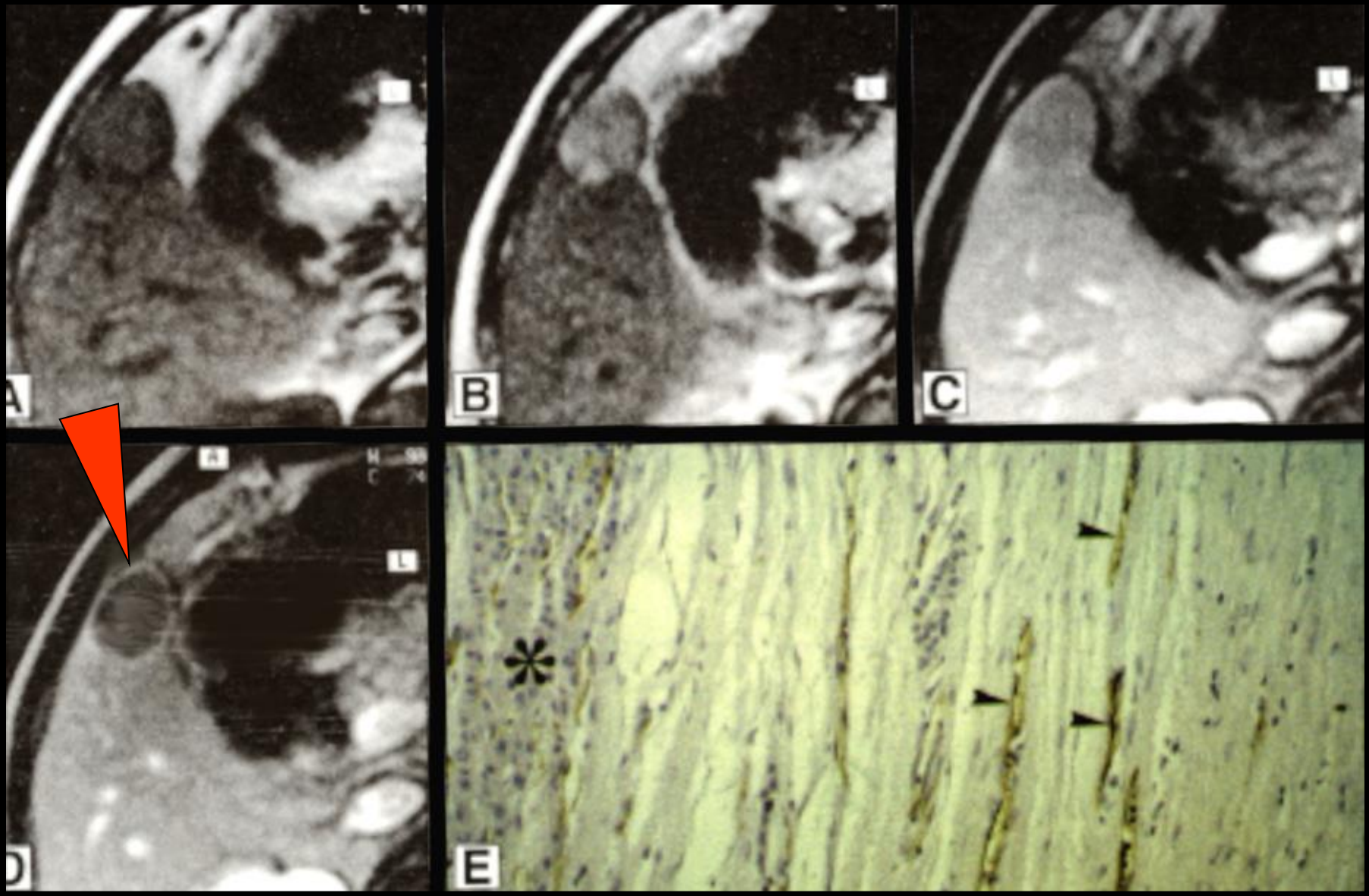
fibrose confluente du segment IV



CHC forme nodulaire

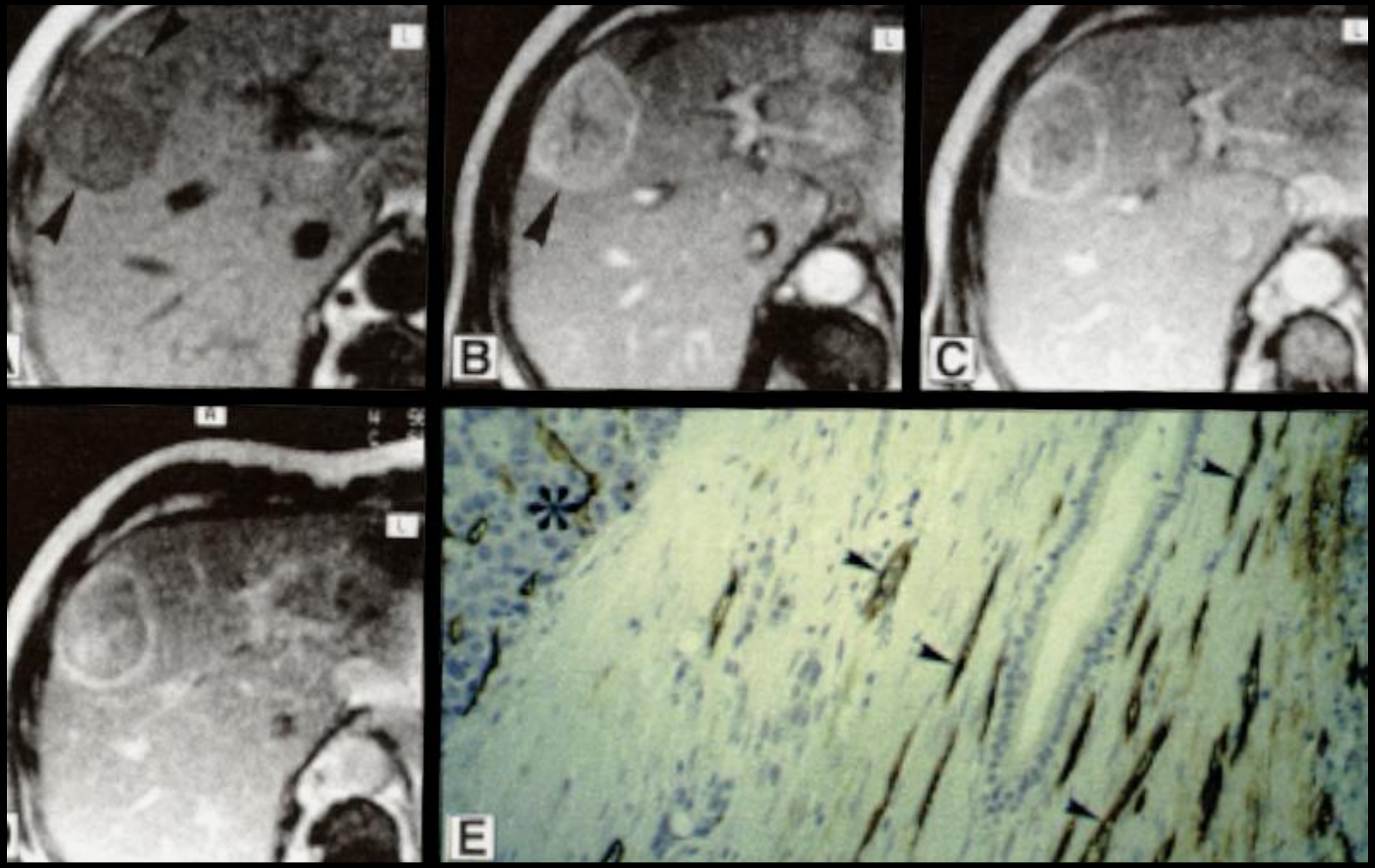






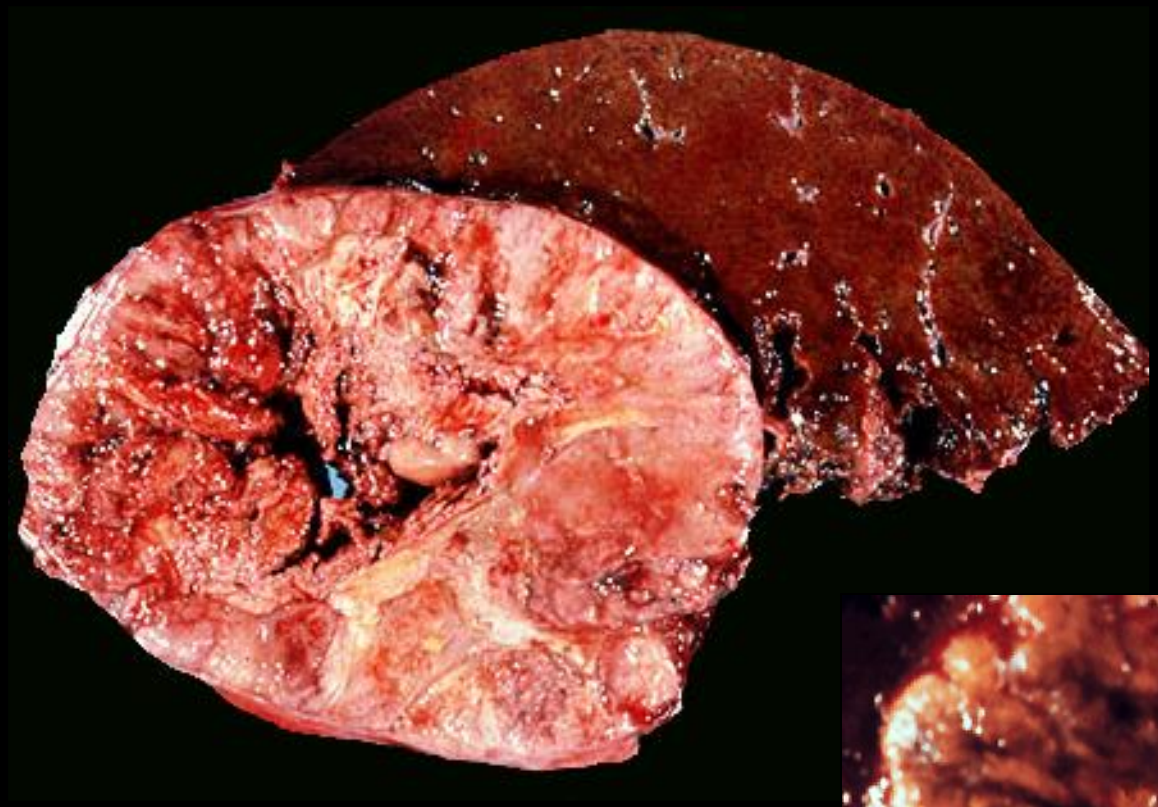
capsule fibreuse collagéne (rehaussement tardif):

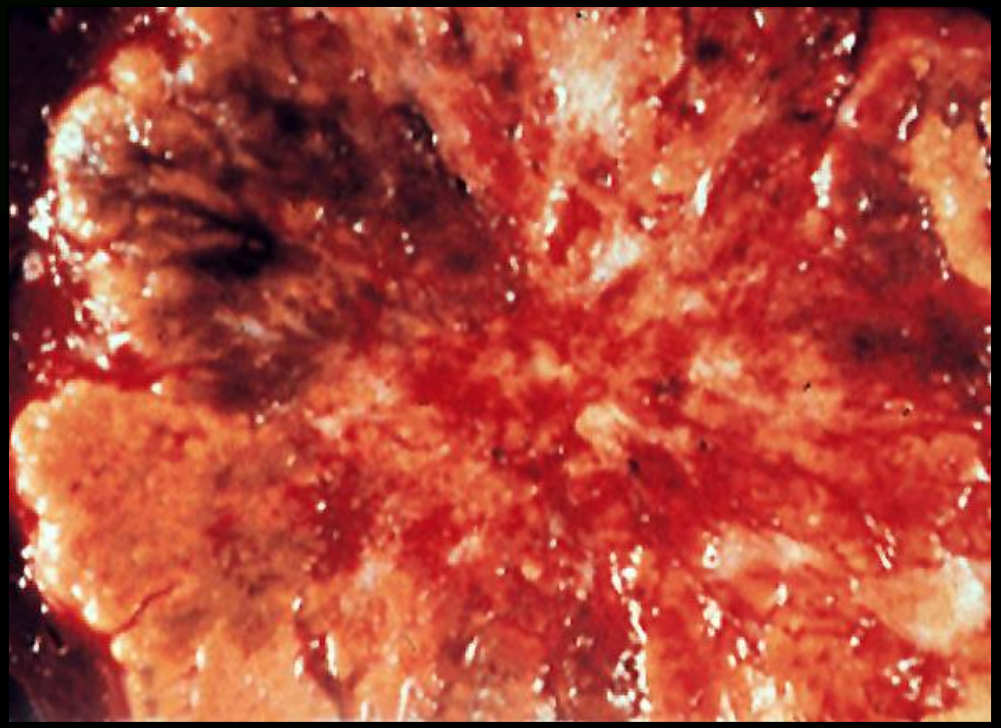
CHC bien différencié



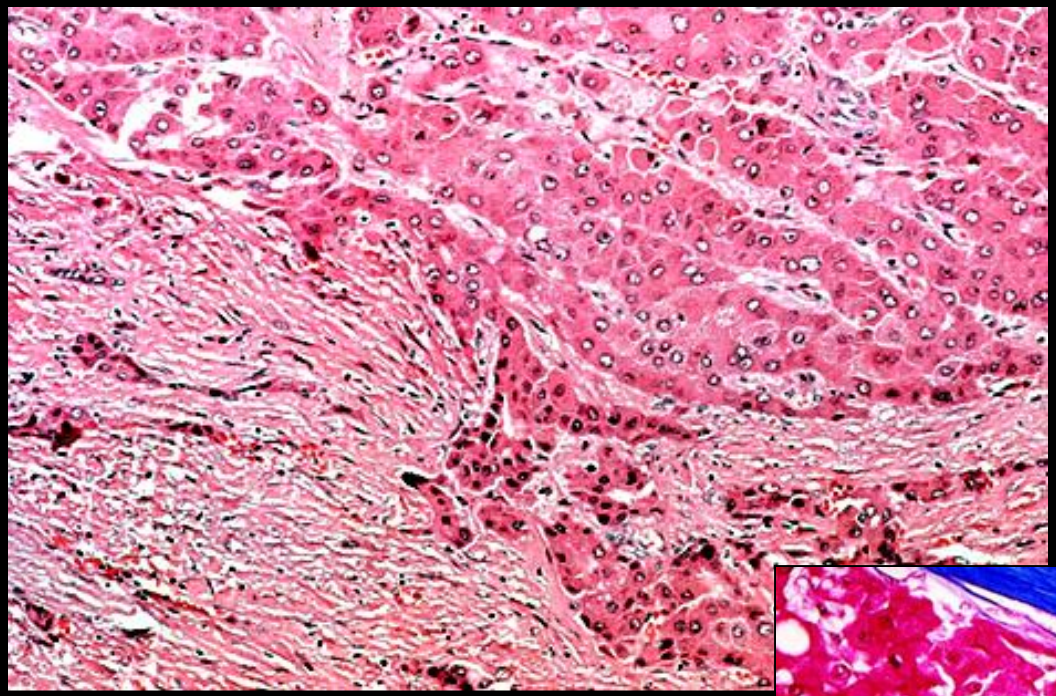
capsule fibro-inflammatoire (rehaussement initial, persistant jqu ’au post-équilibre précoce ,2-4 min)

CHC **moyennement différencié**

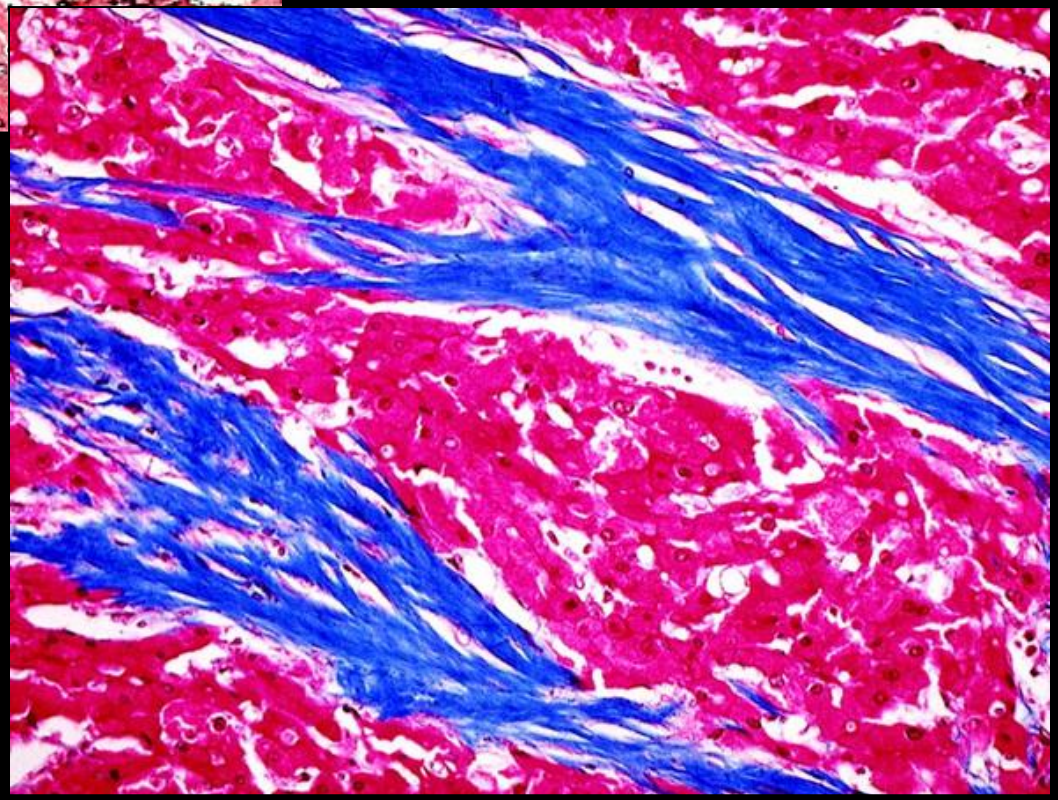




hépatocarcinome fibro-lamellaire

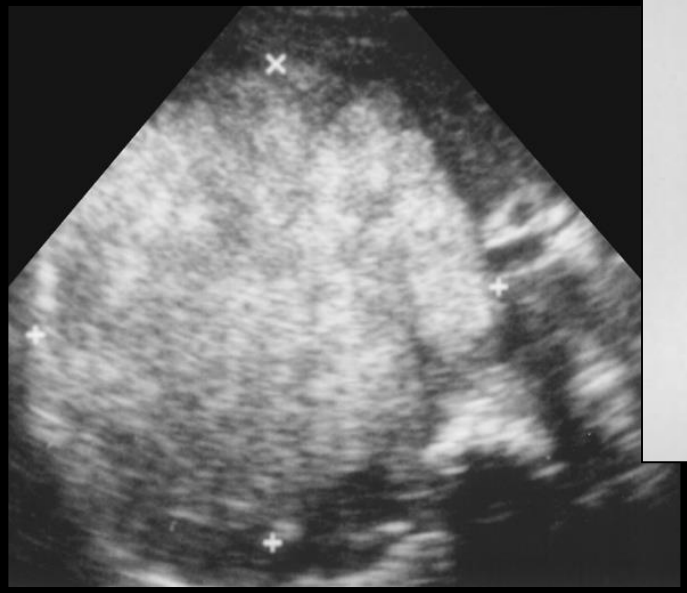


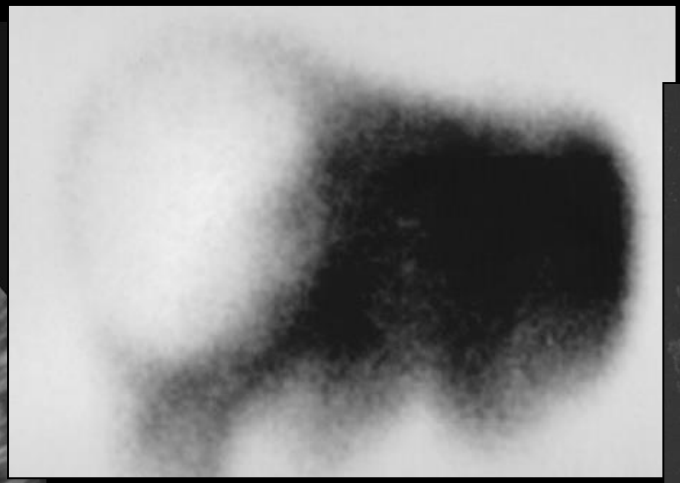
HE

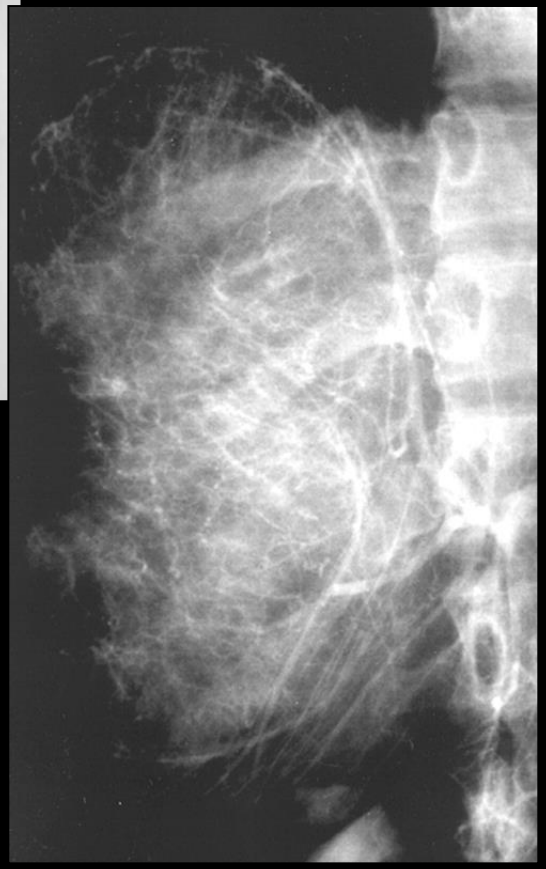


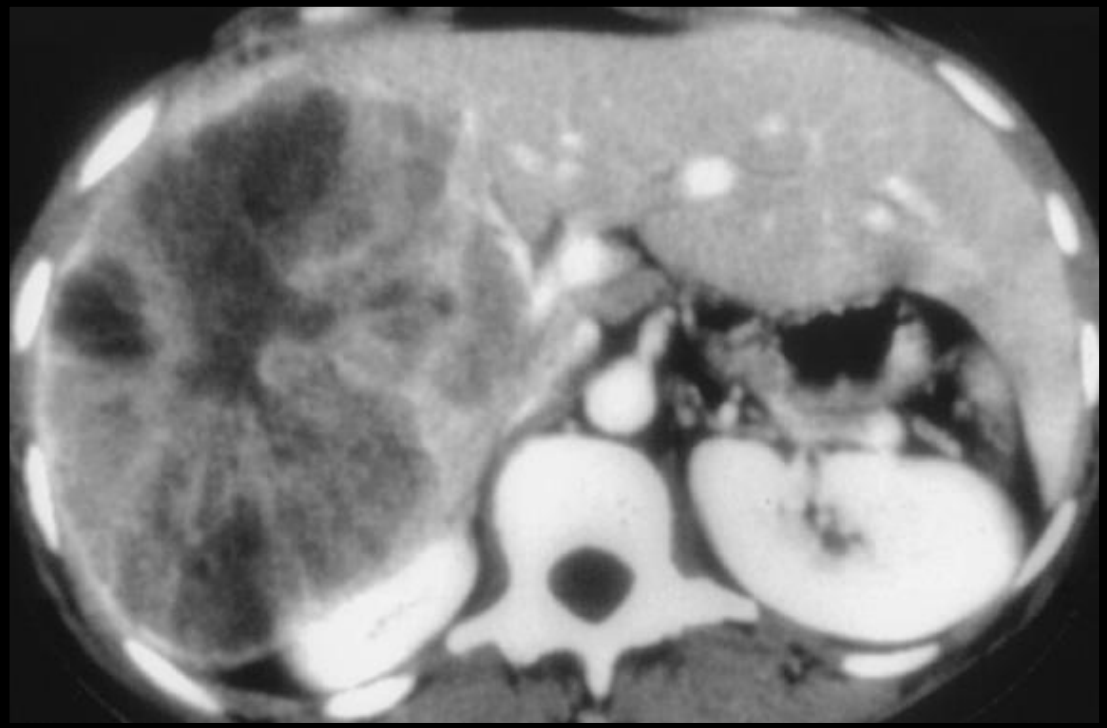
hépatocarcinome fibro-lamellaire

trichrome









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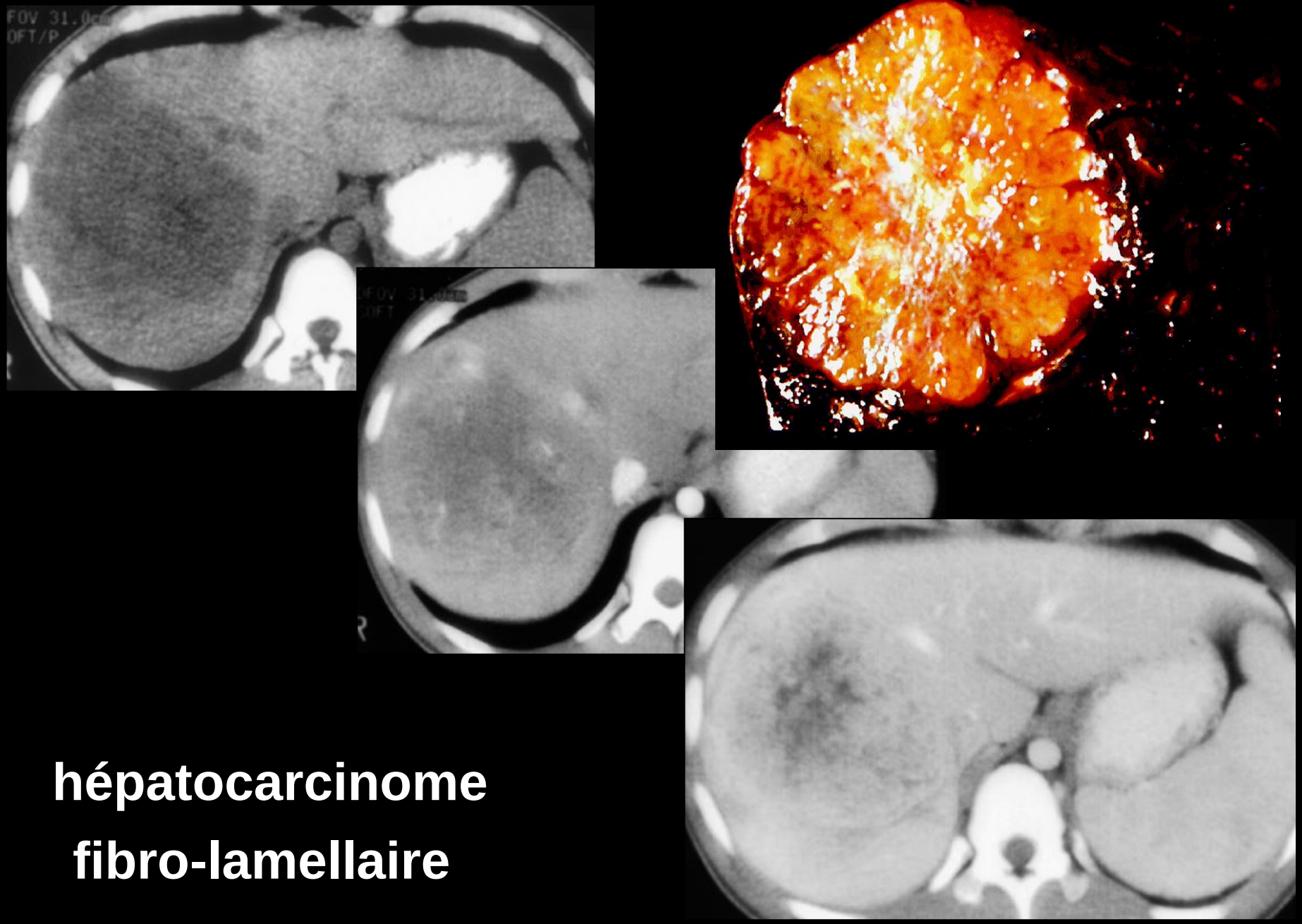

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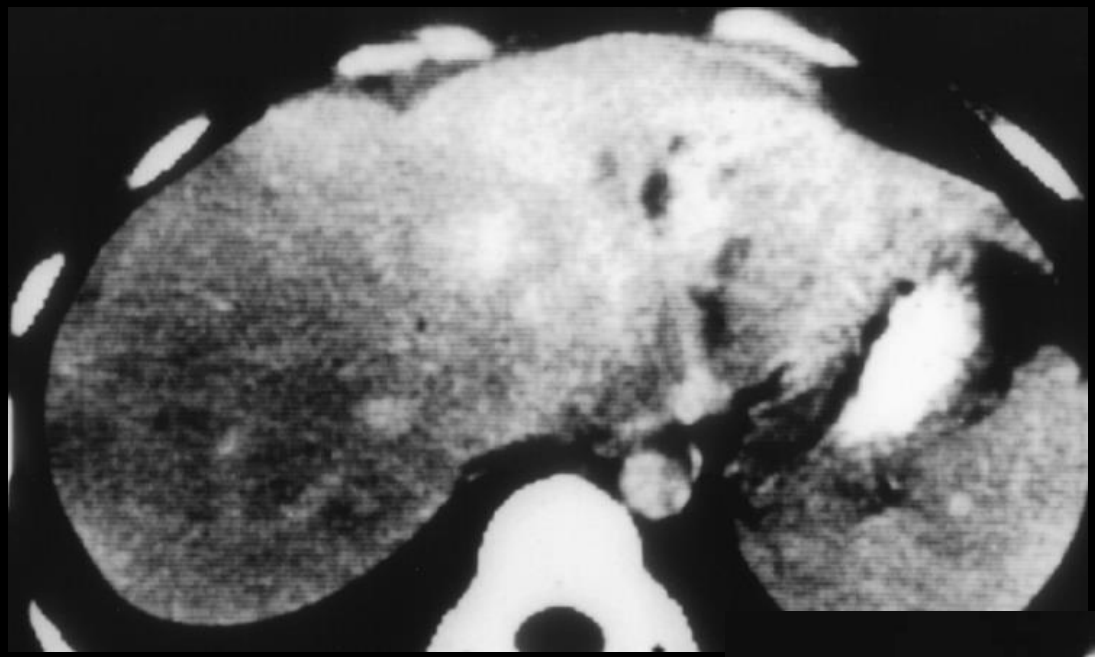
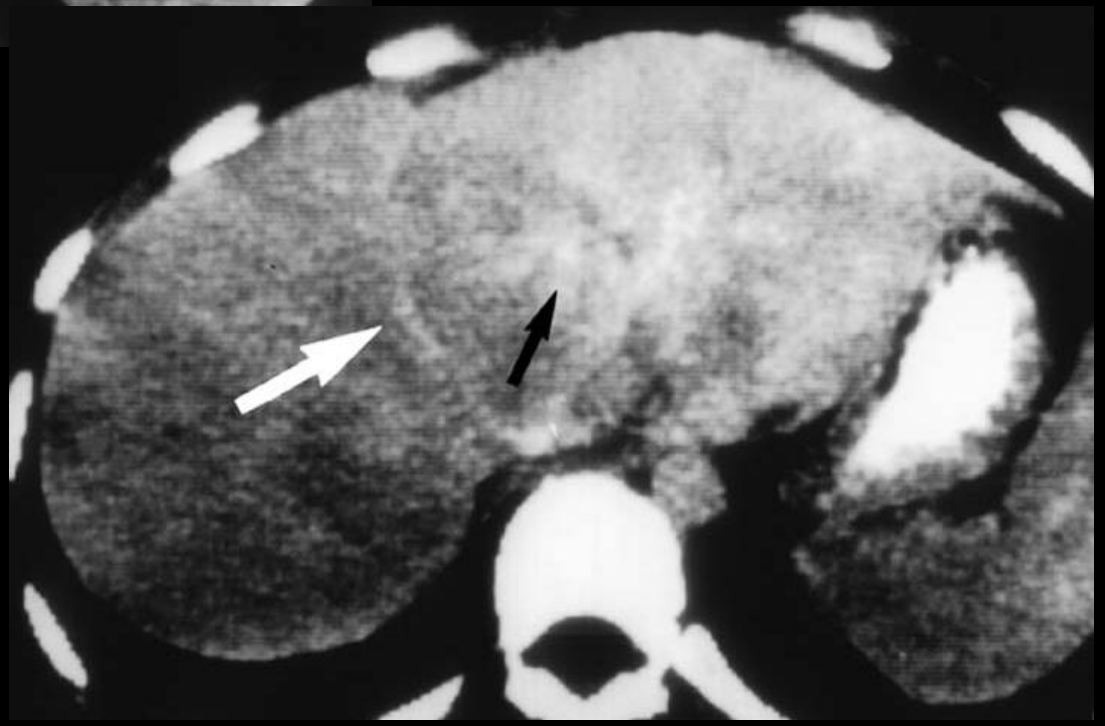
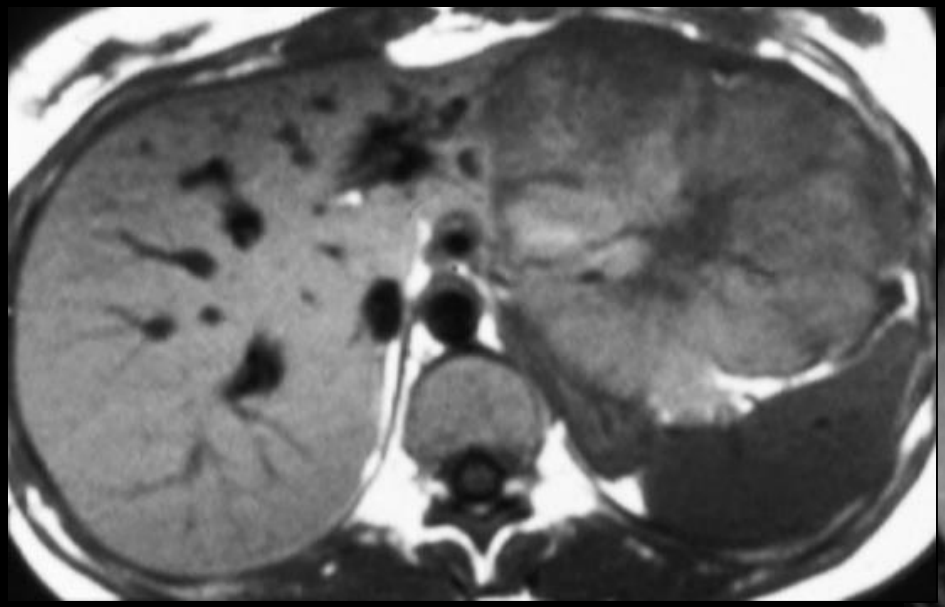
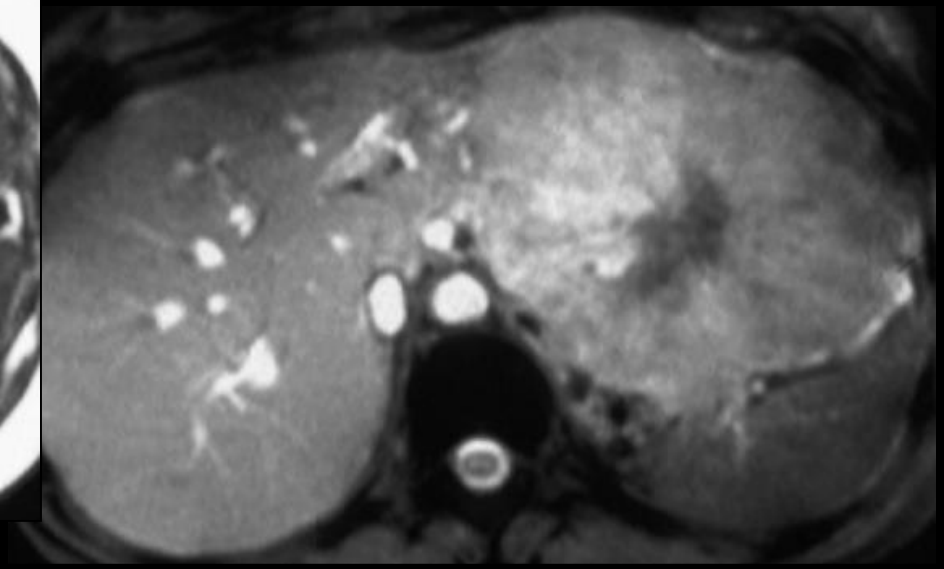
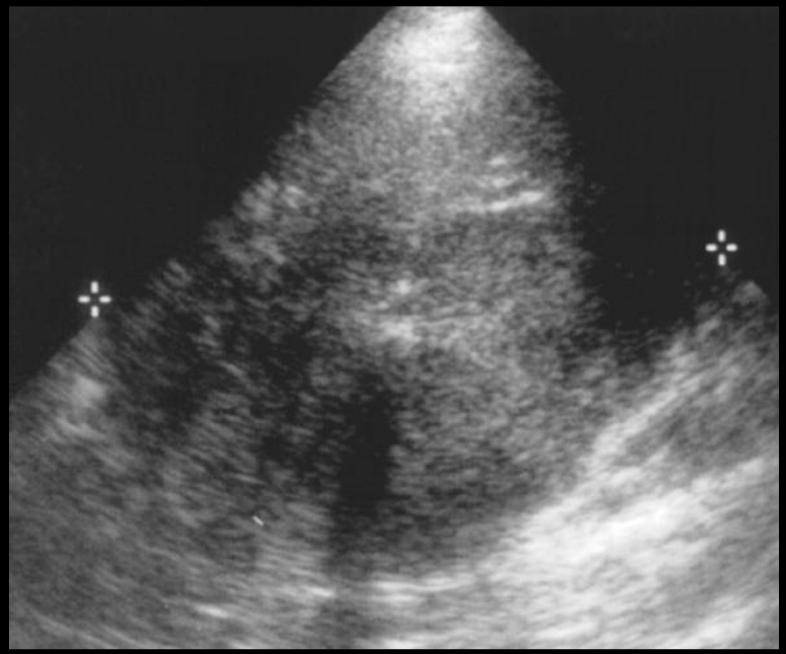


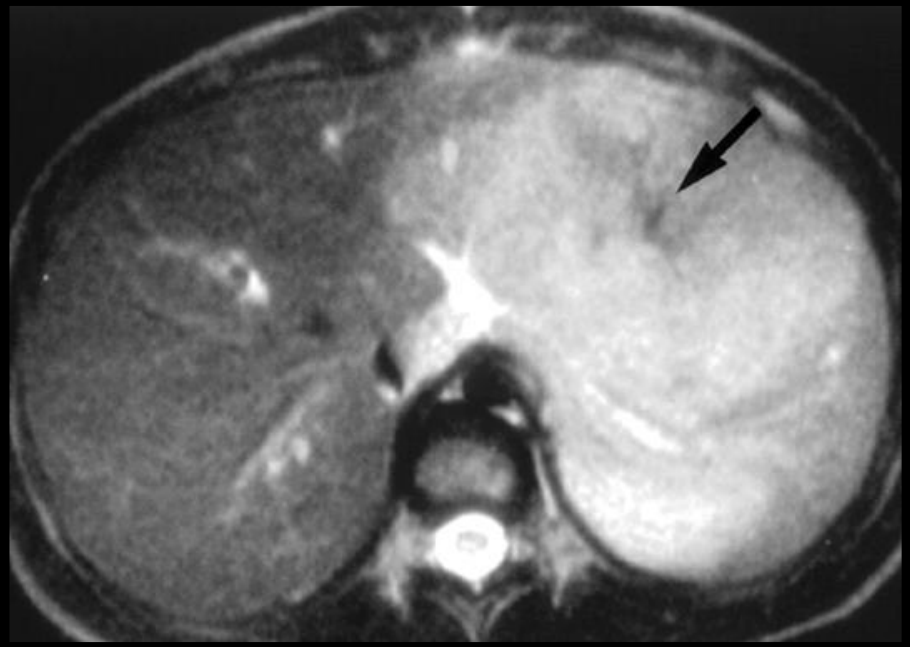


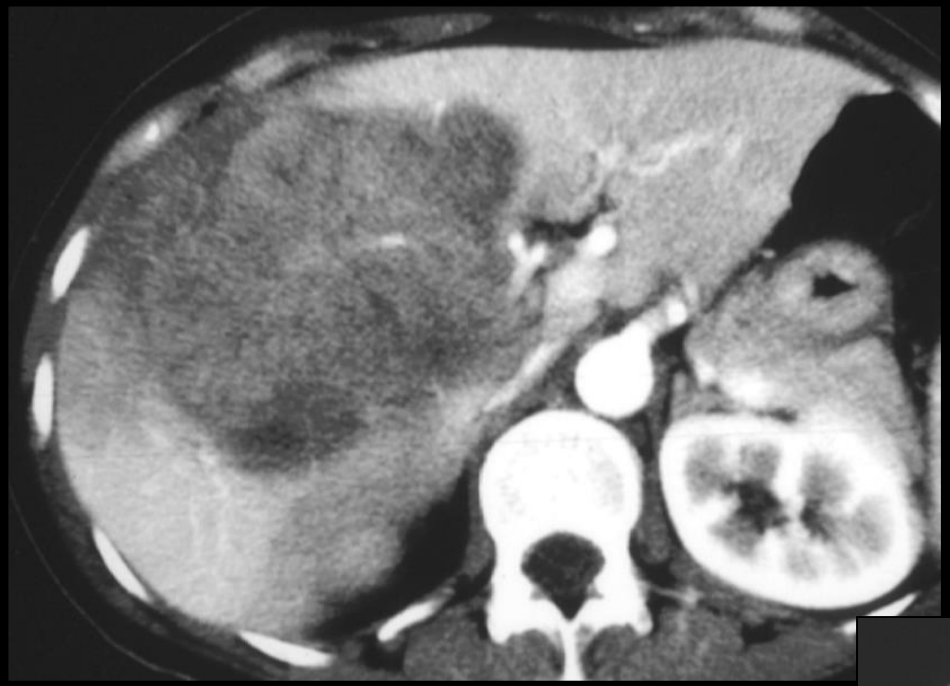
hépatocarcinome fibro-lamellaire

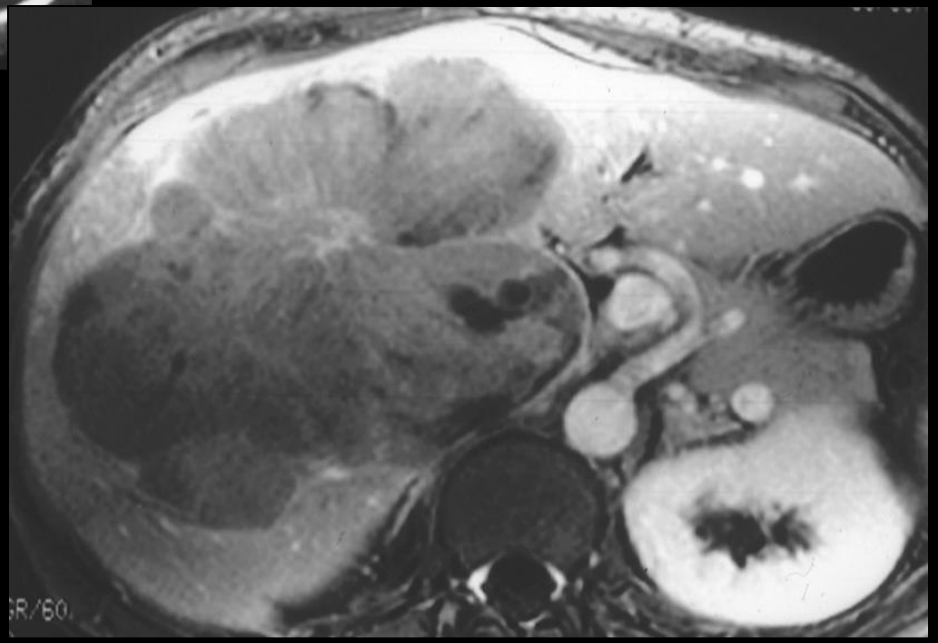


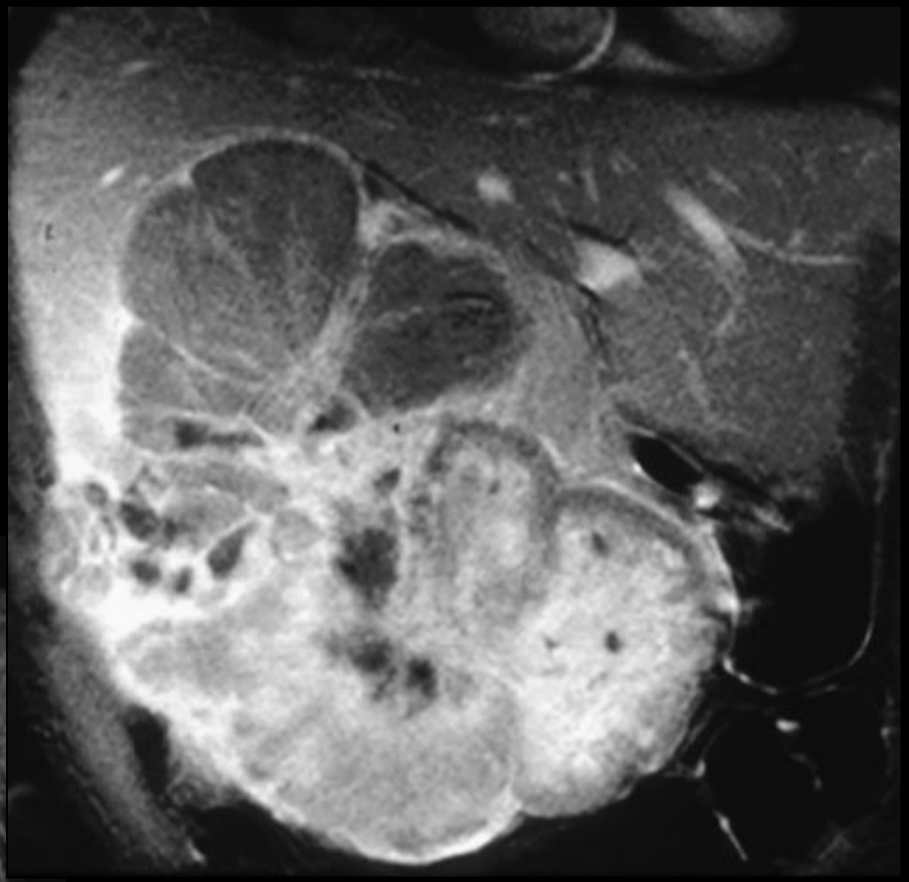


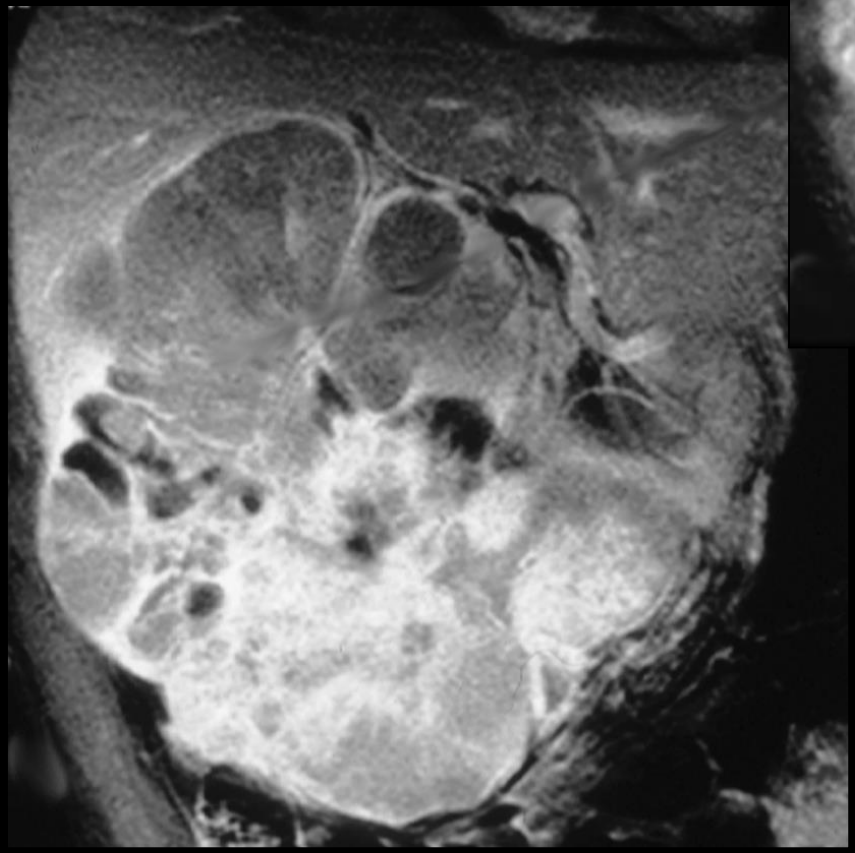




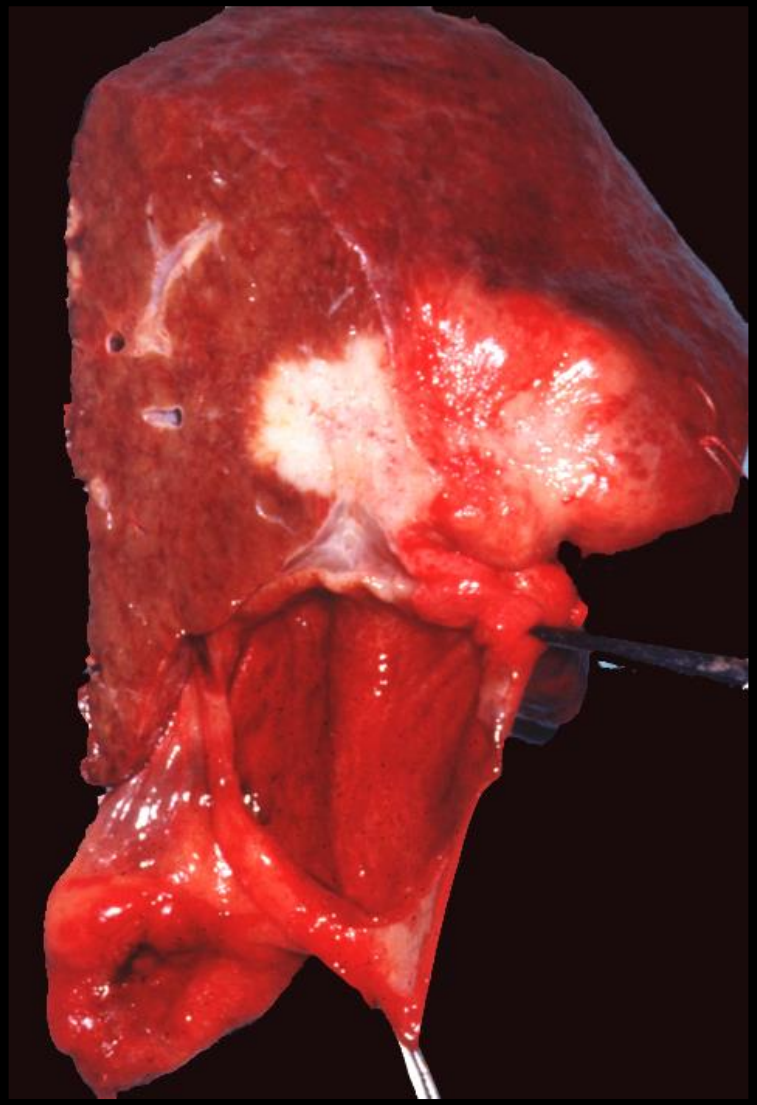


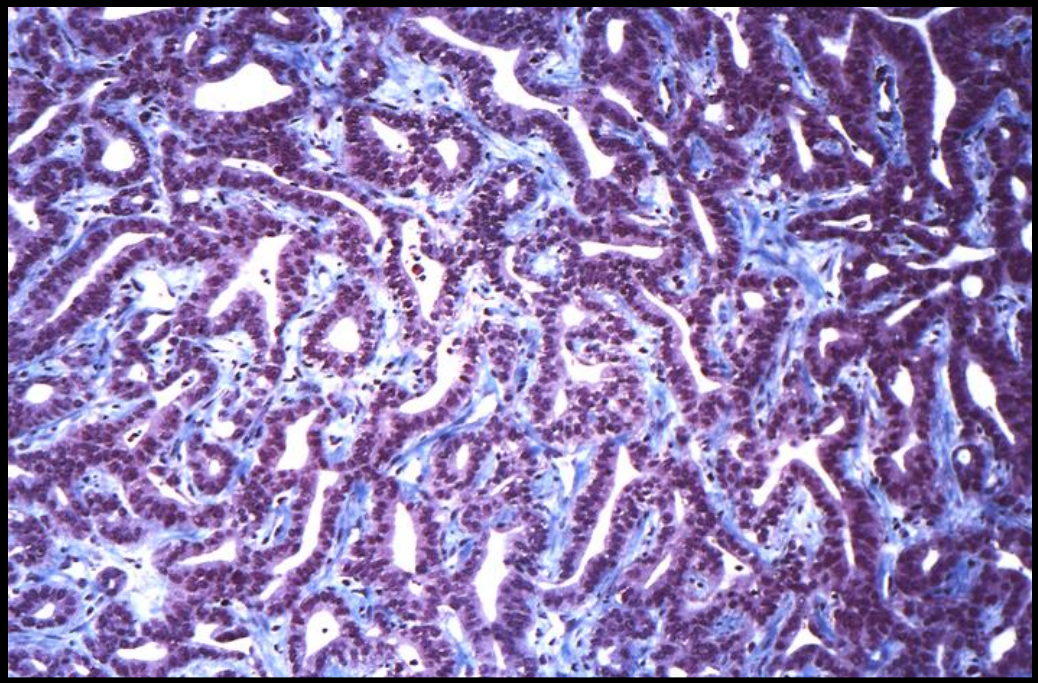


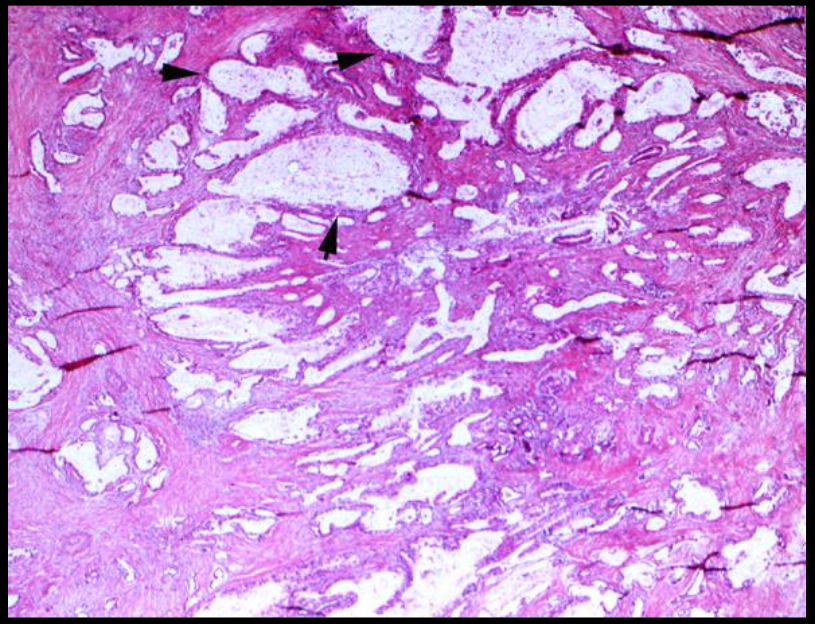




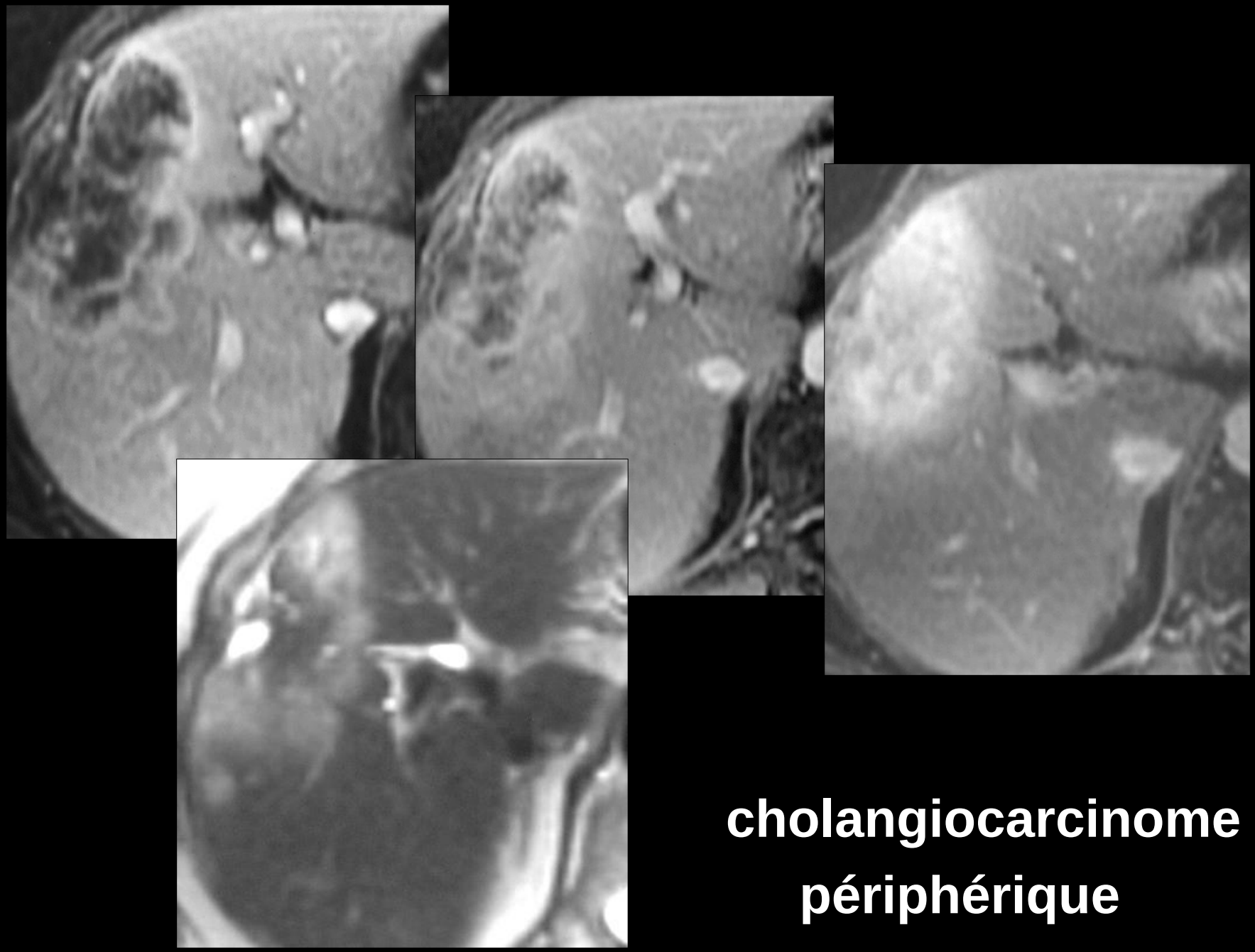
hépato-cholangiolo carcinome



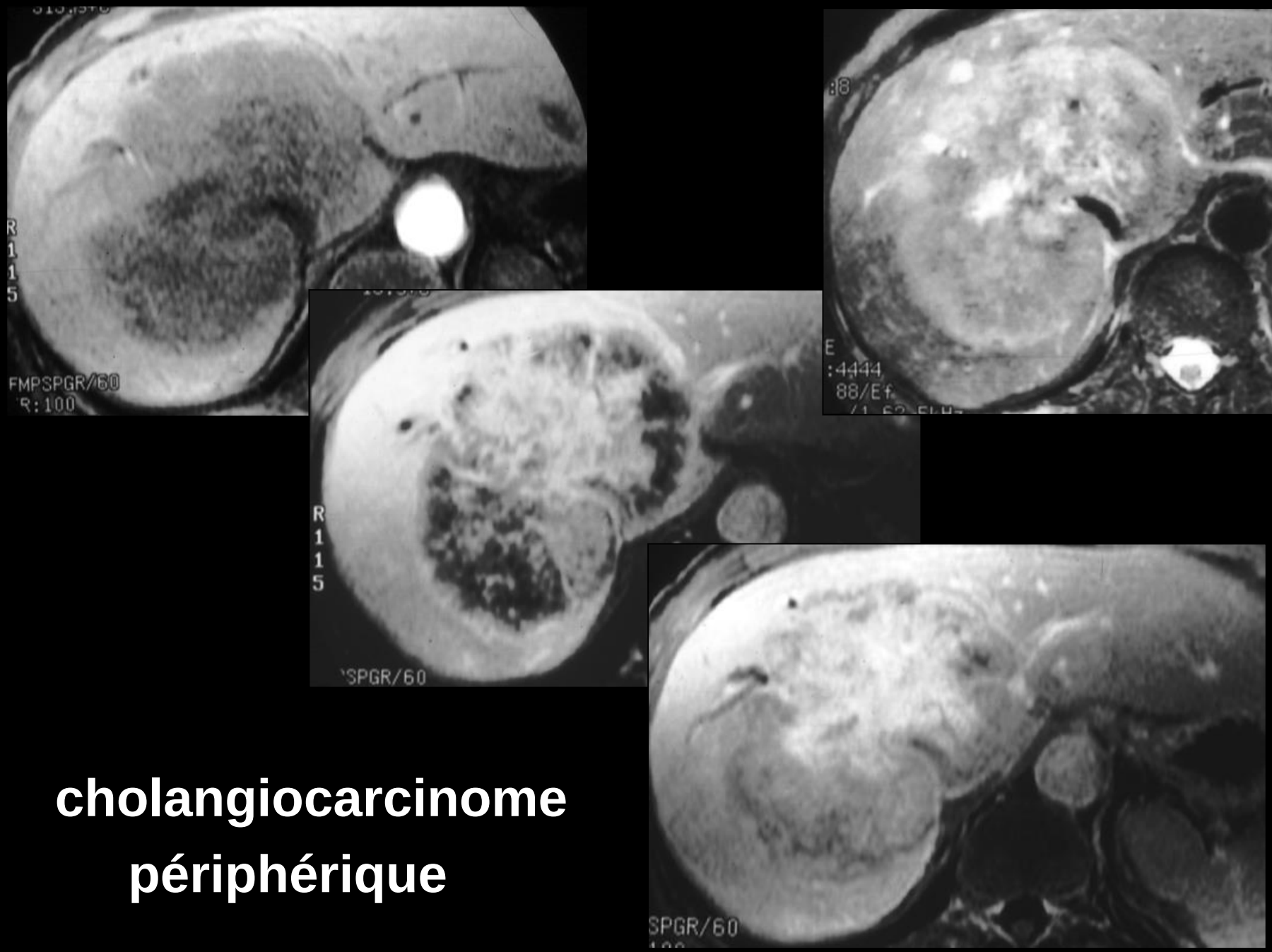




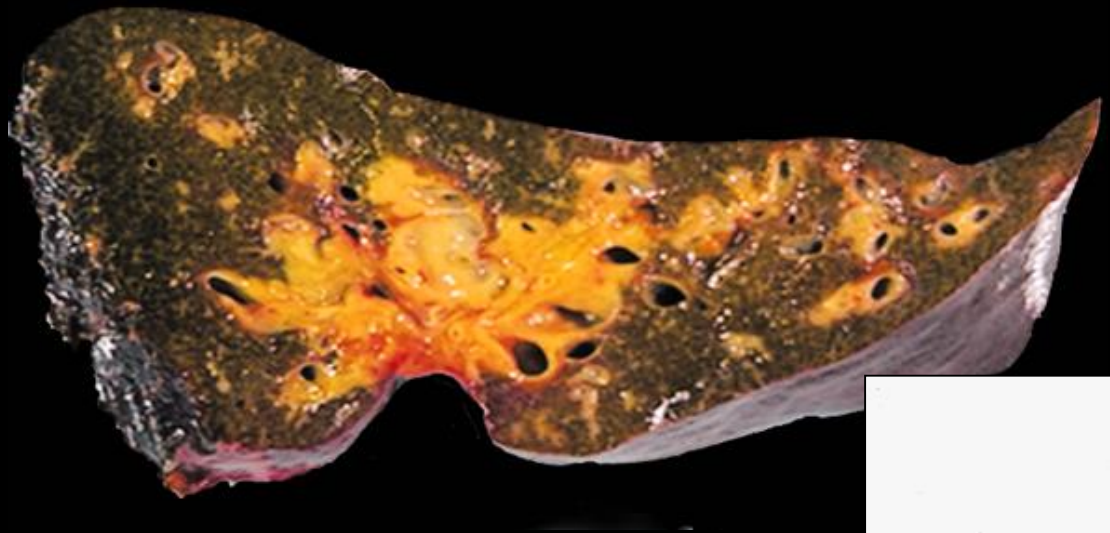
cholangiocarcinome périphérique

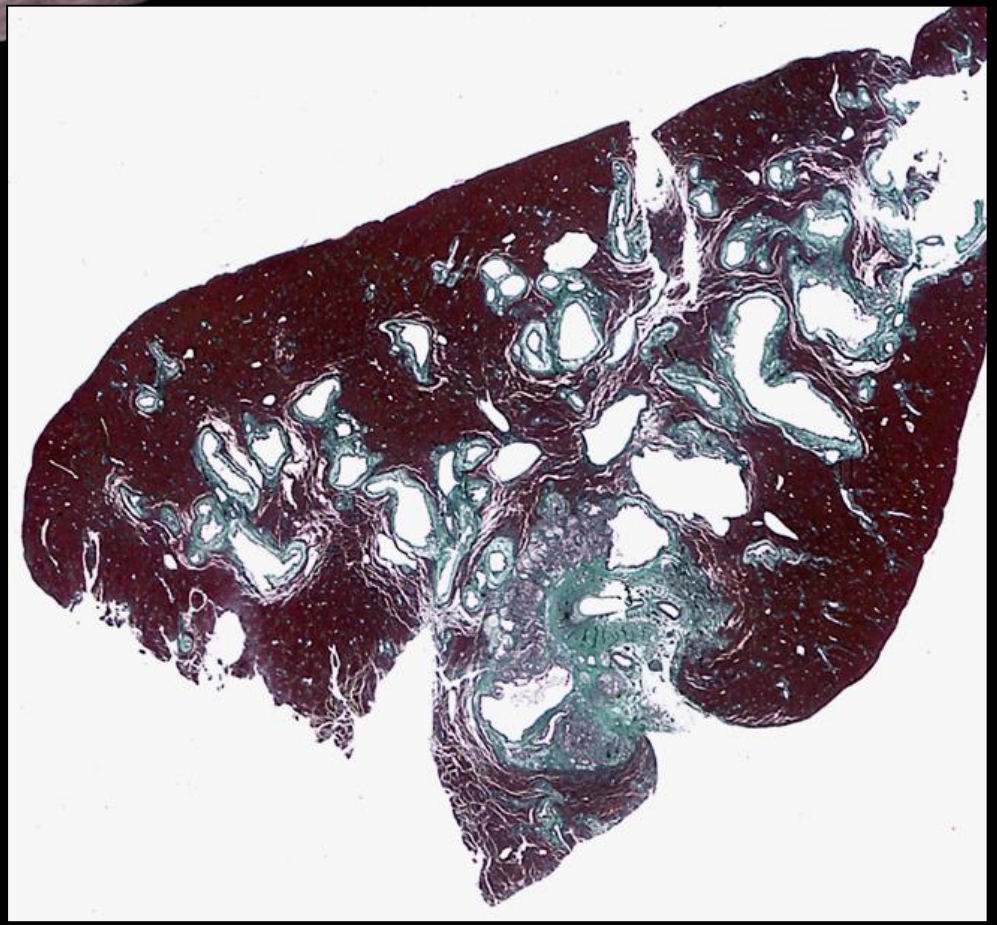


cholangiocarcinome périphérique



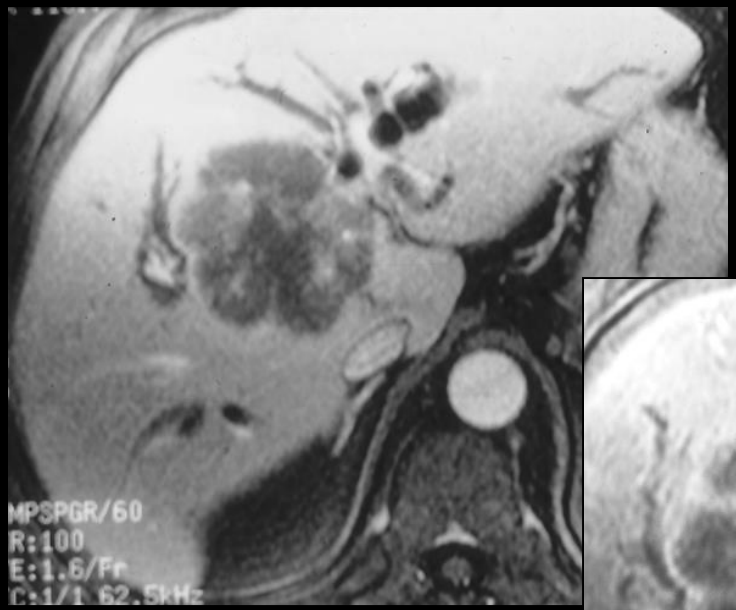
cholangiocarcinome périphérique





cholangiocarcinome

" central "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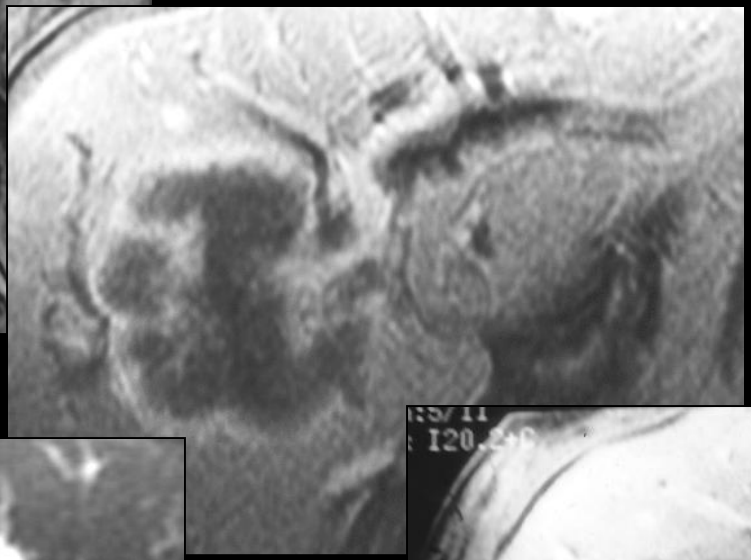

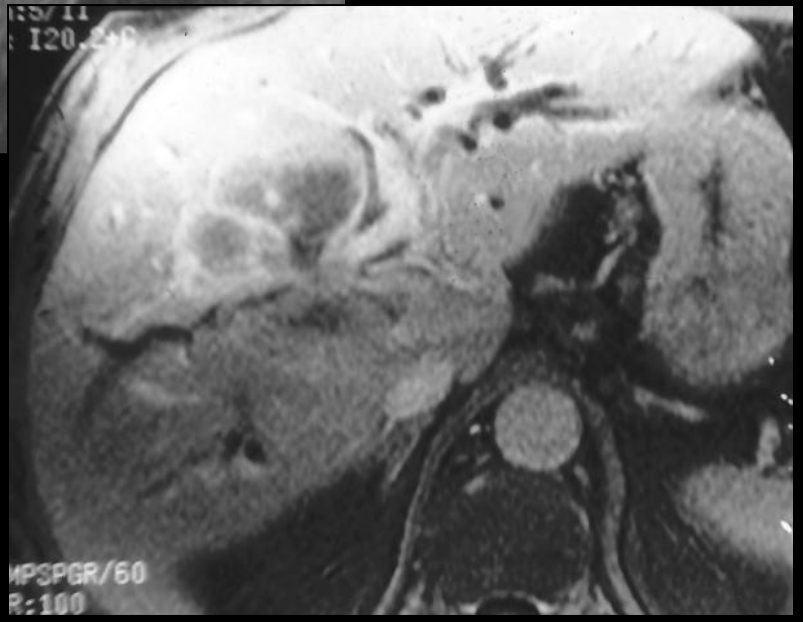
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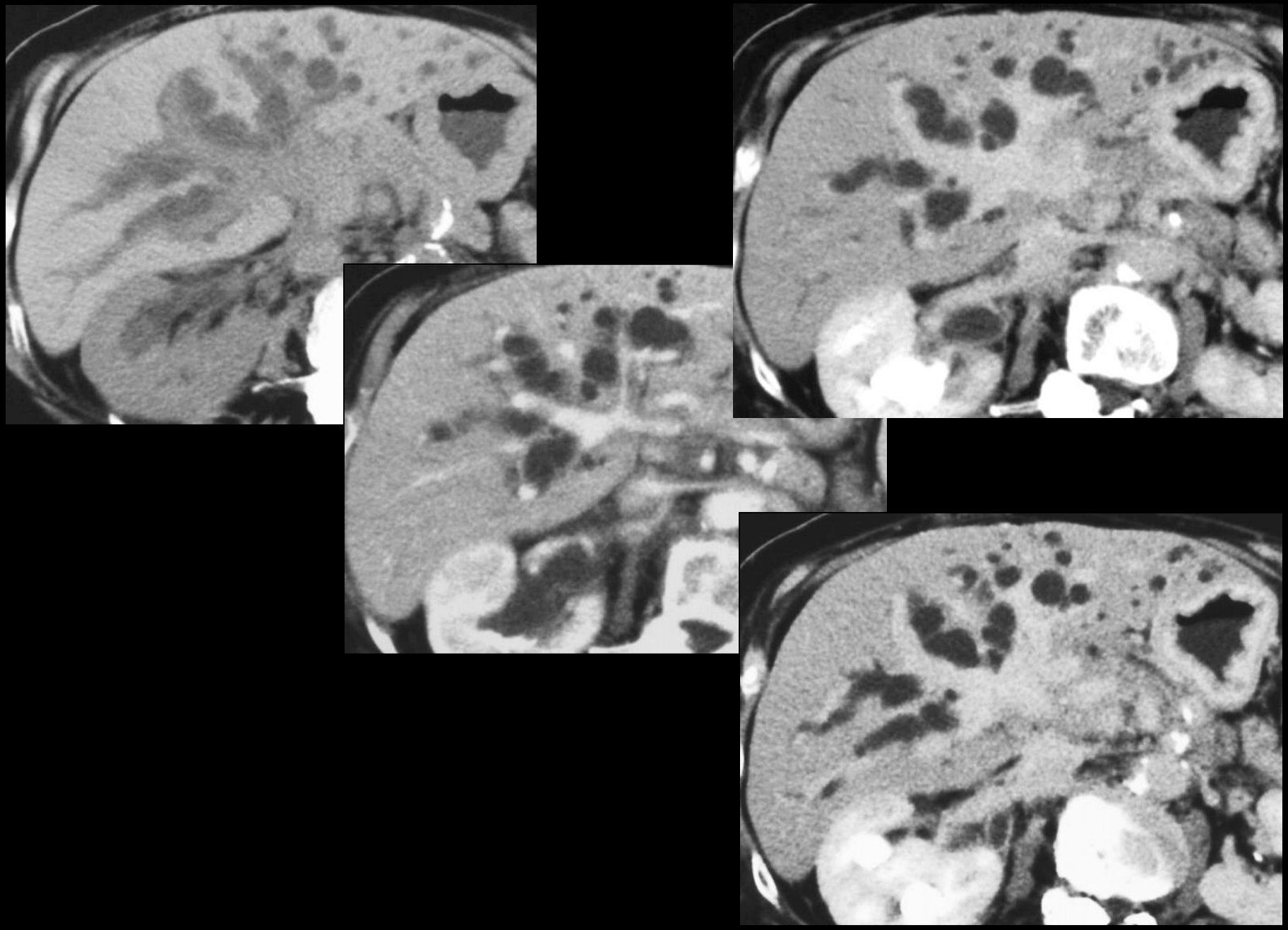
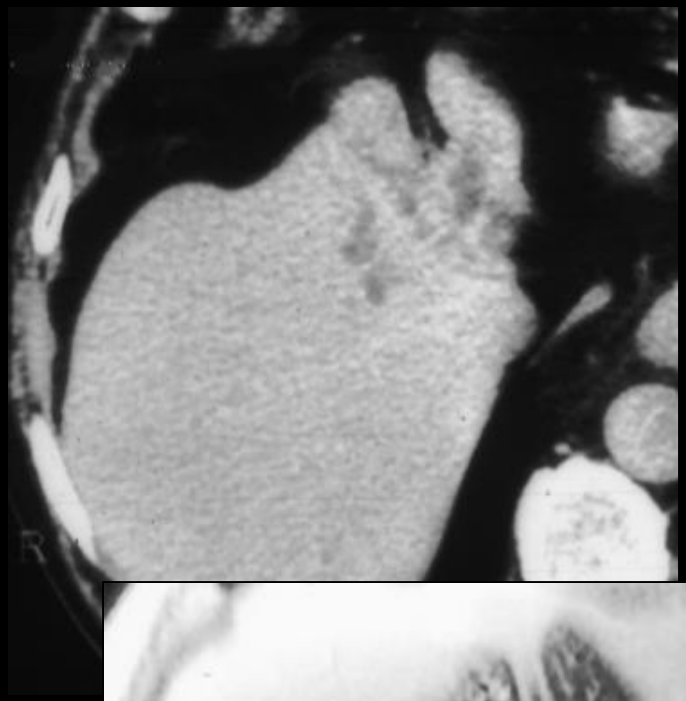
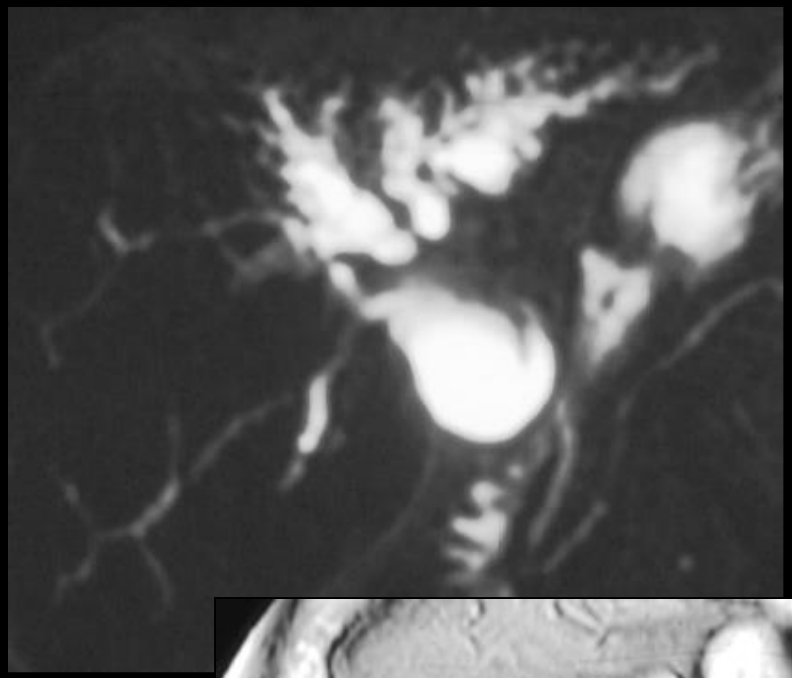
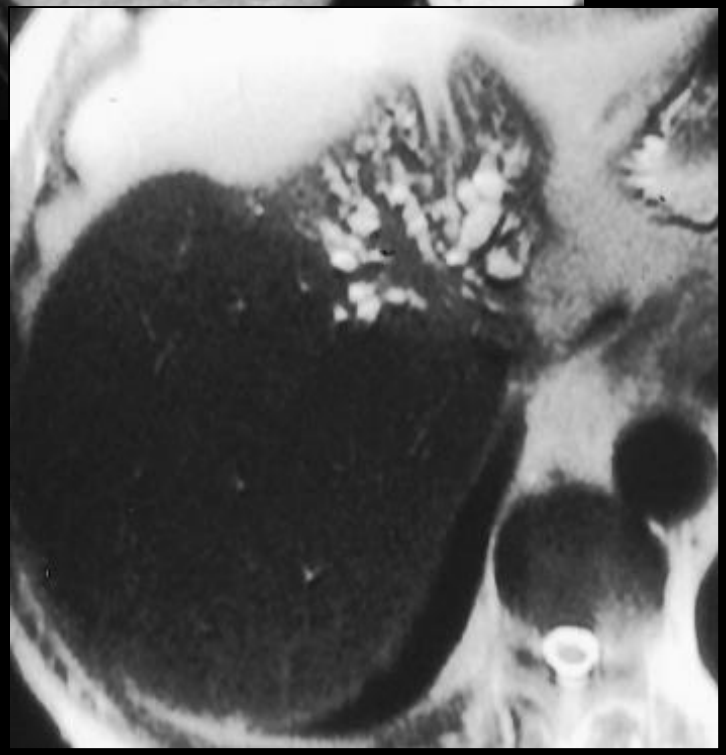
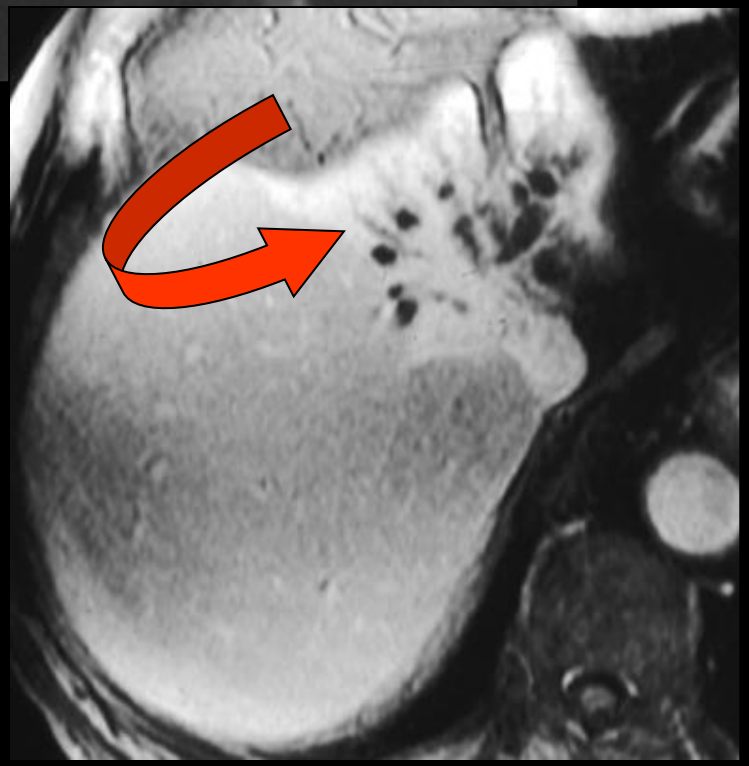
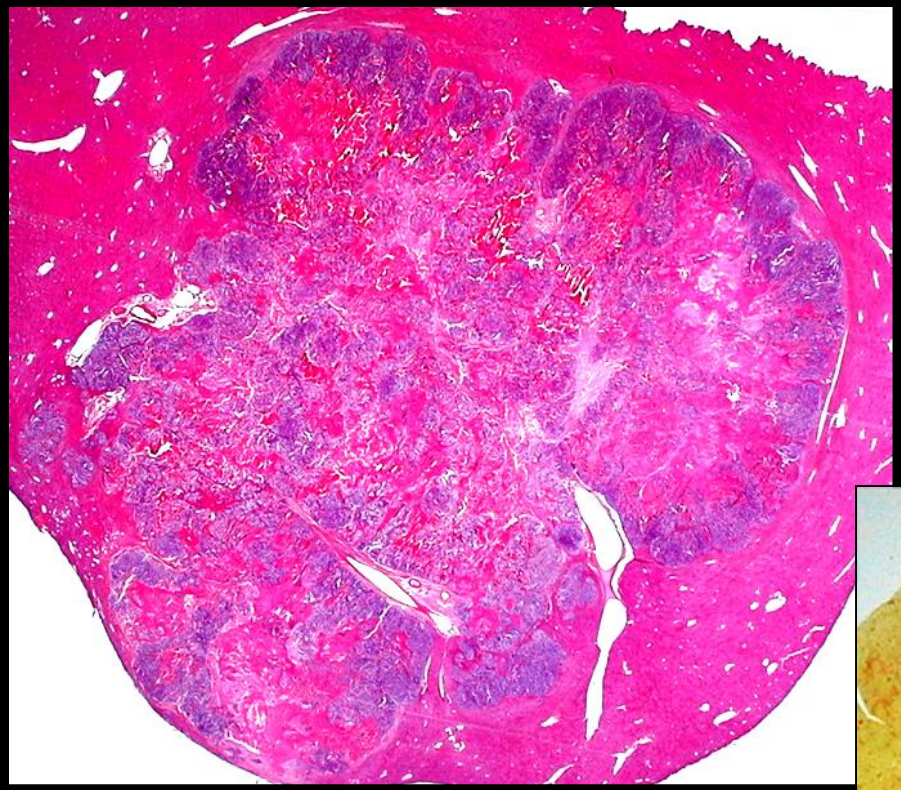


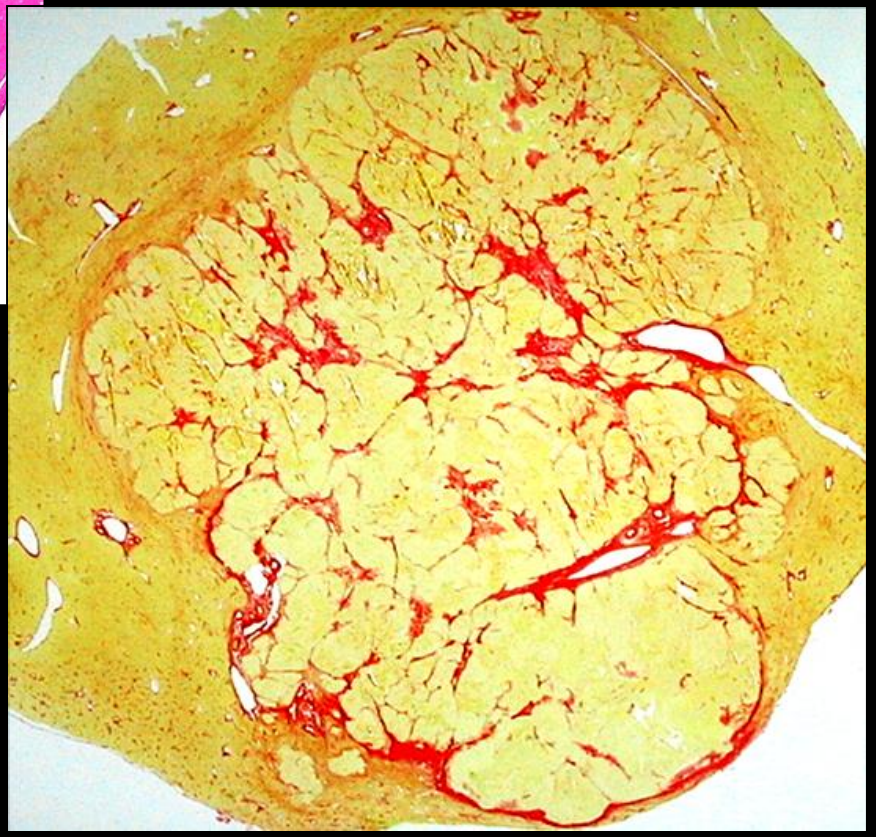




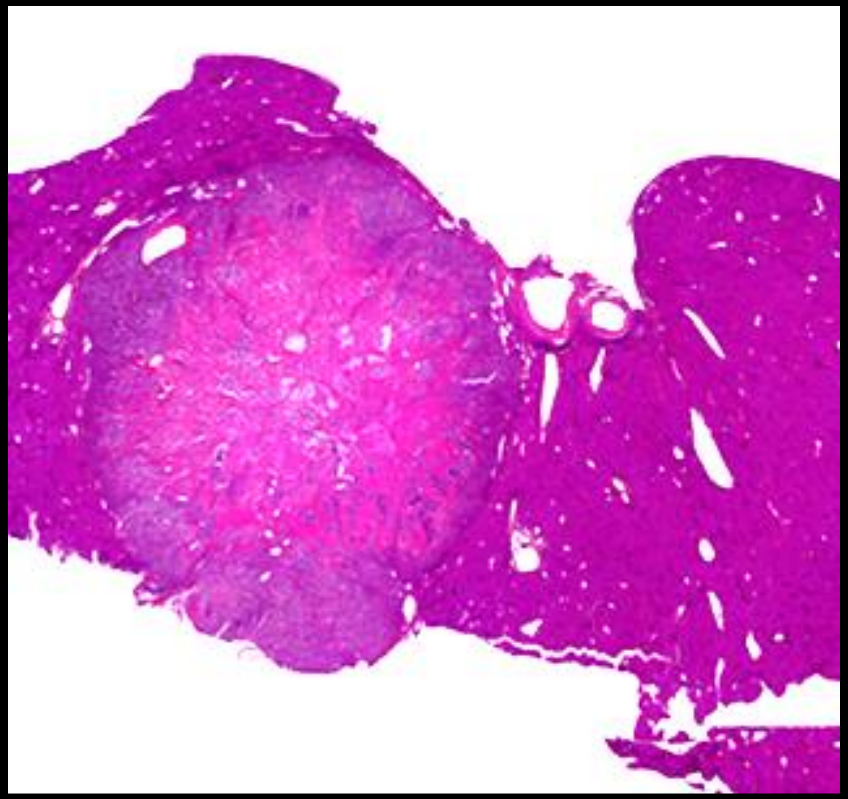


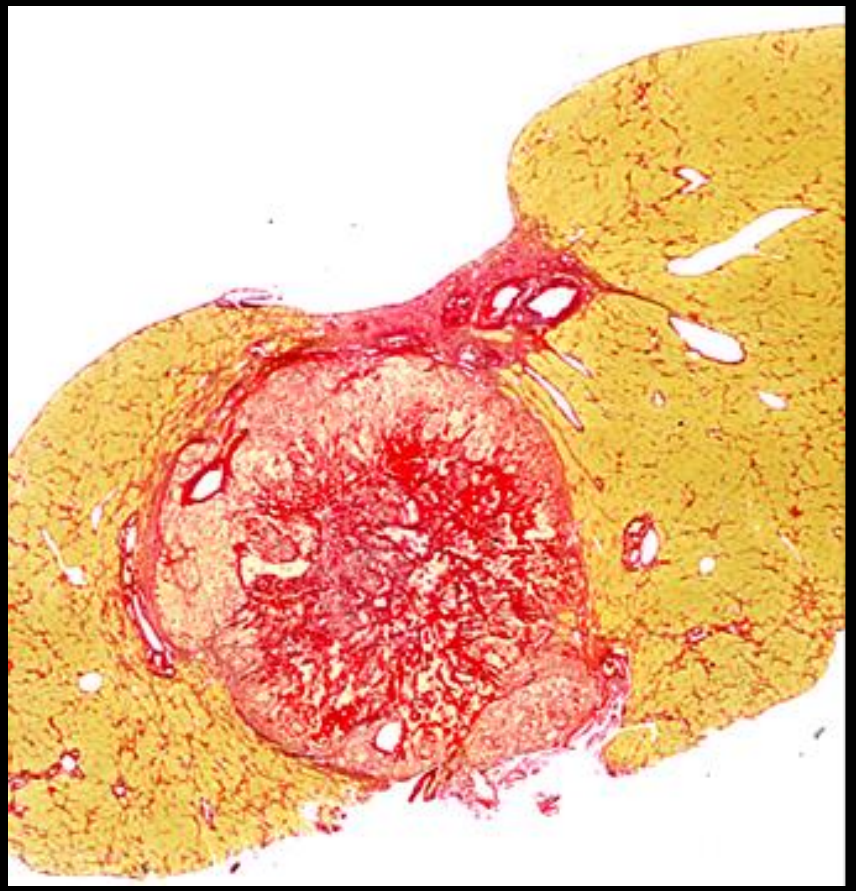




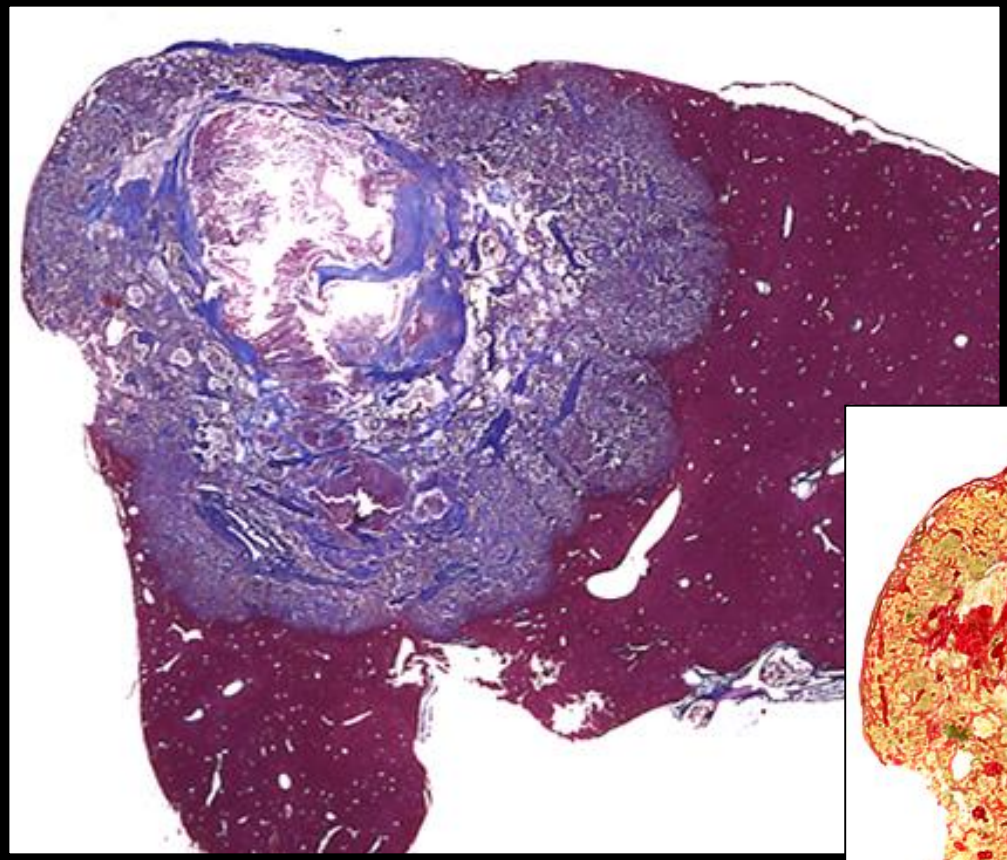


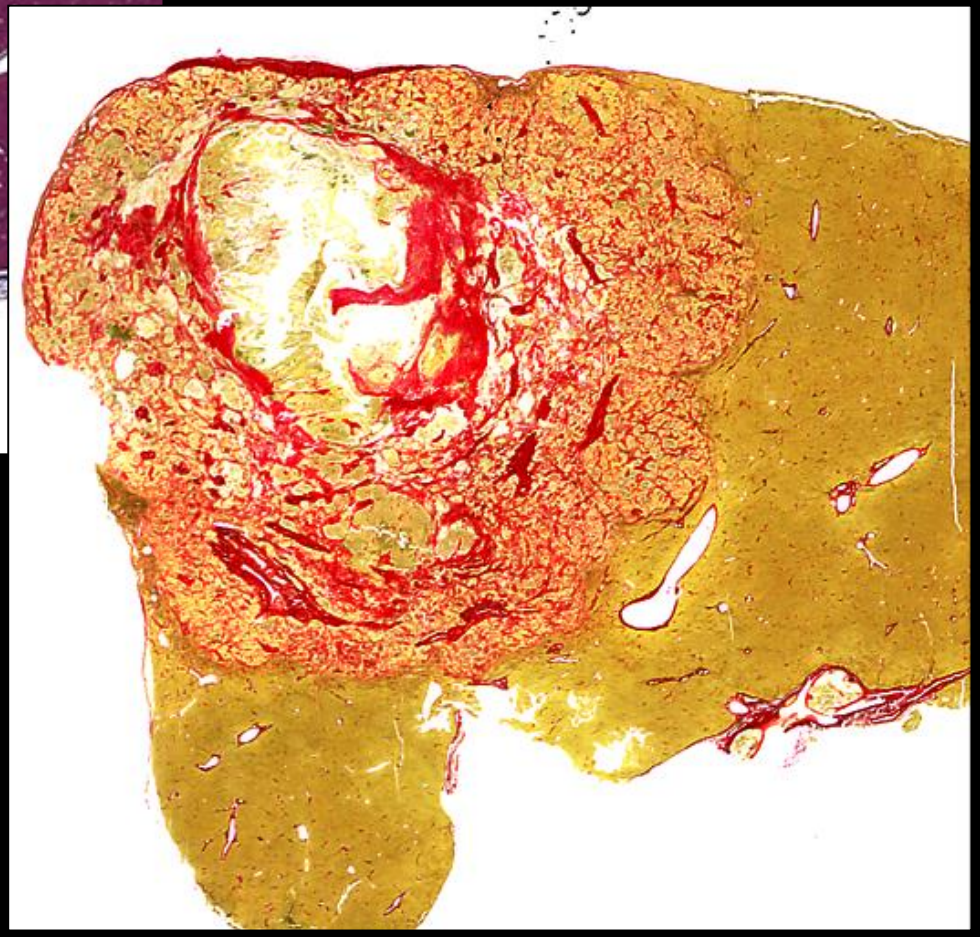
métastase d ’un
ADK rectal



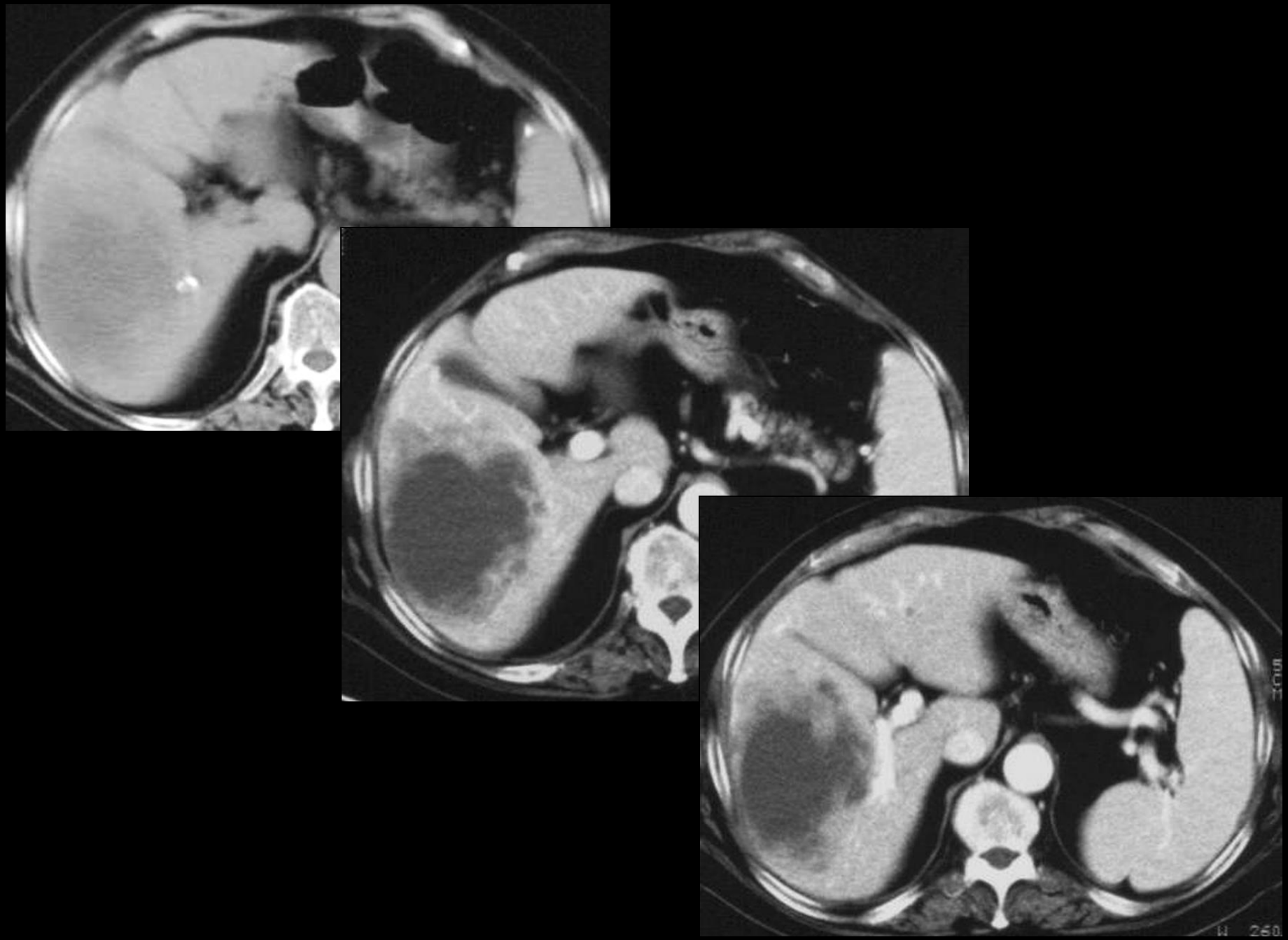


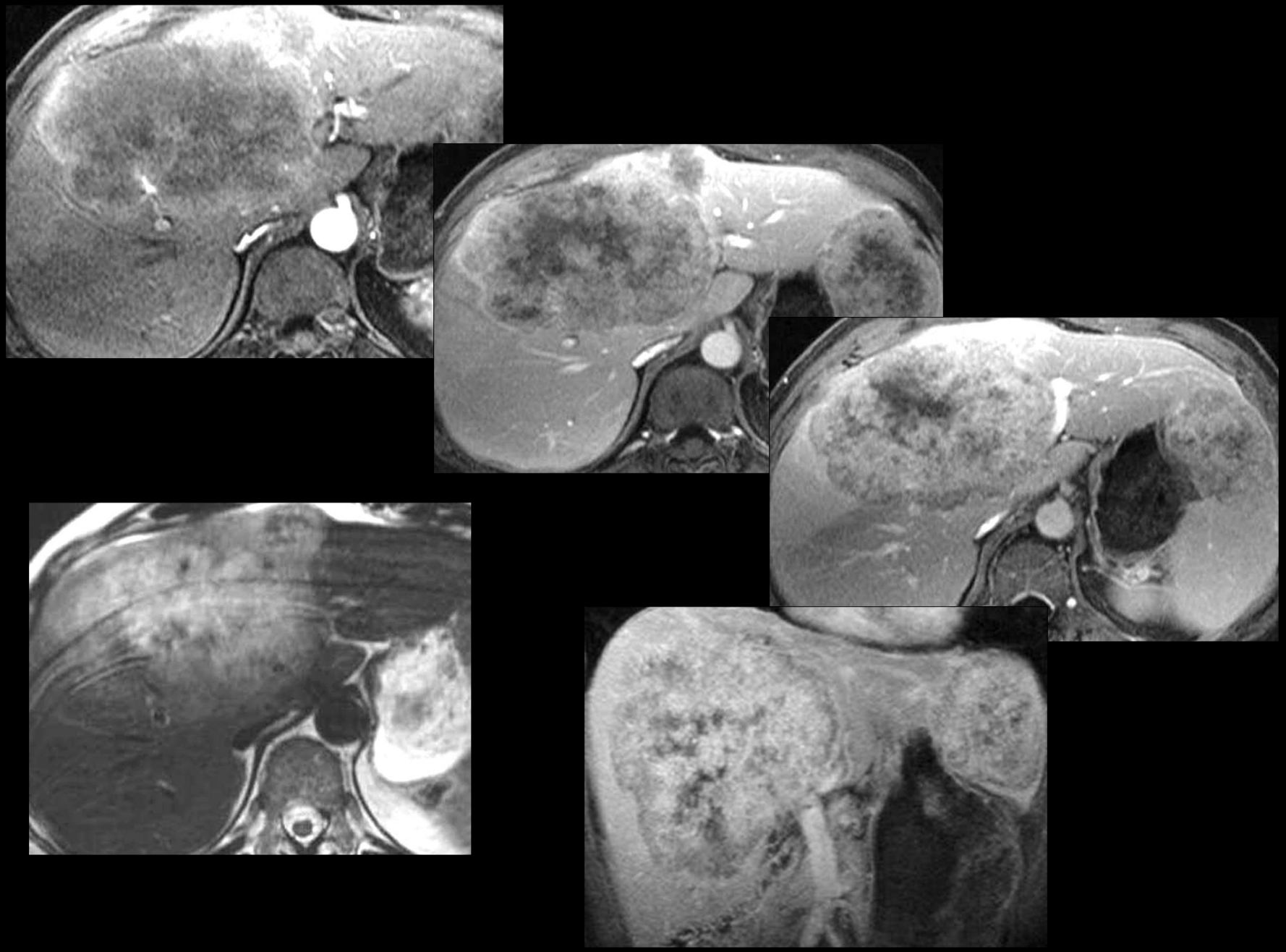
métastase d ’une
tumeur neuro-endocrine
carcinoïde

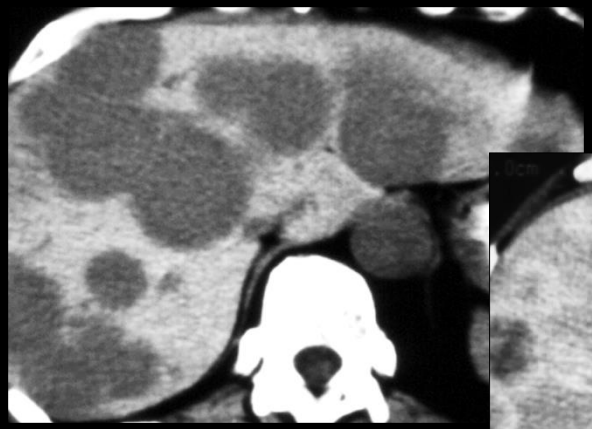


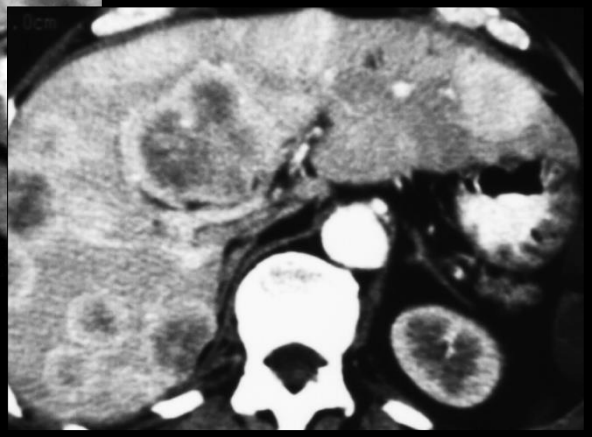


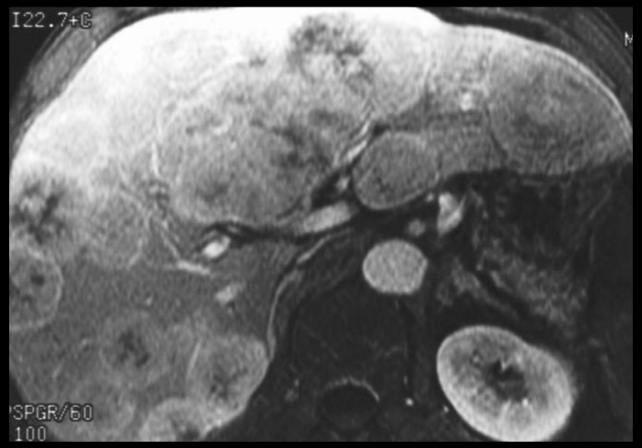
métastase d ’un
ADK colique



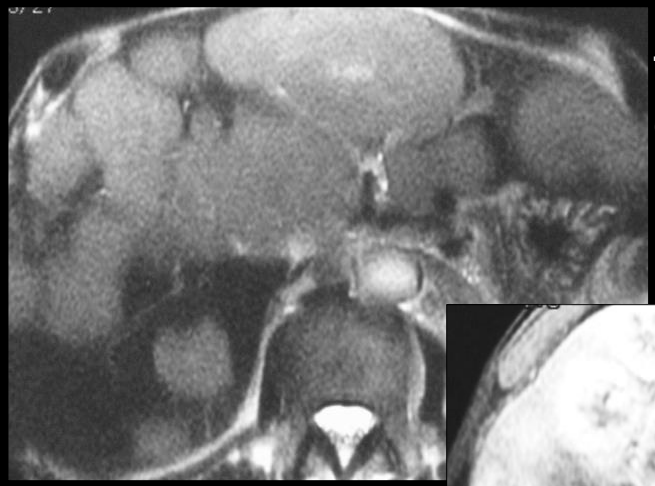


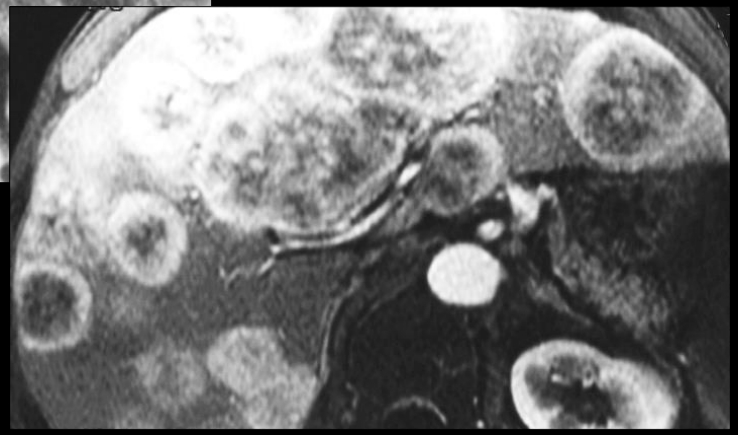


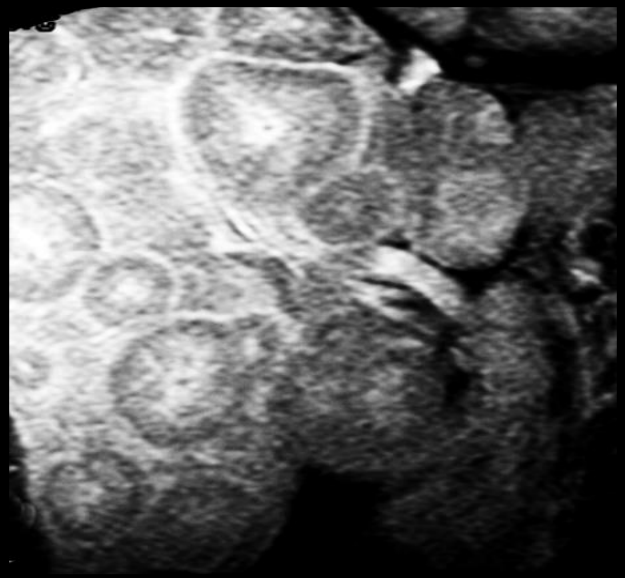


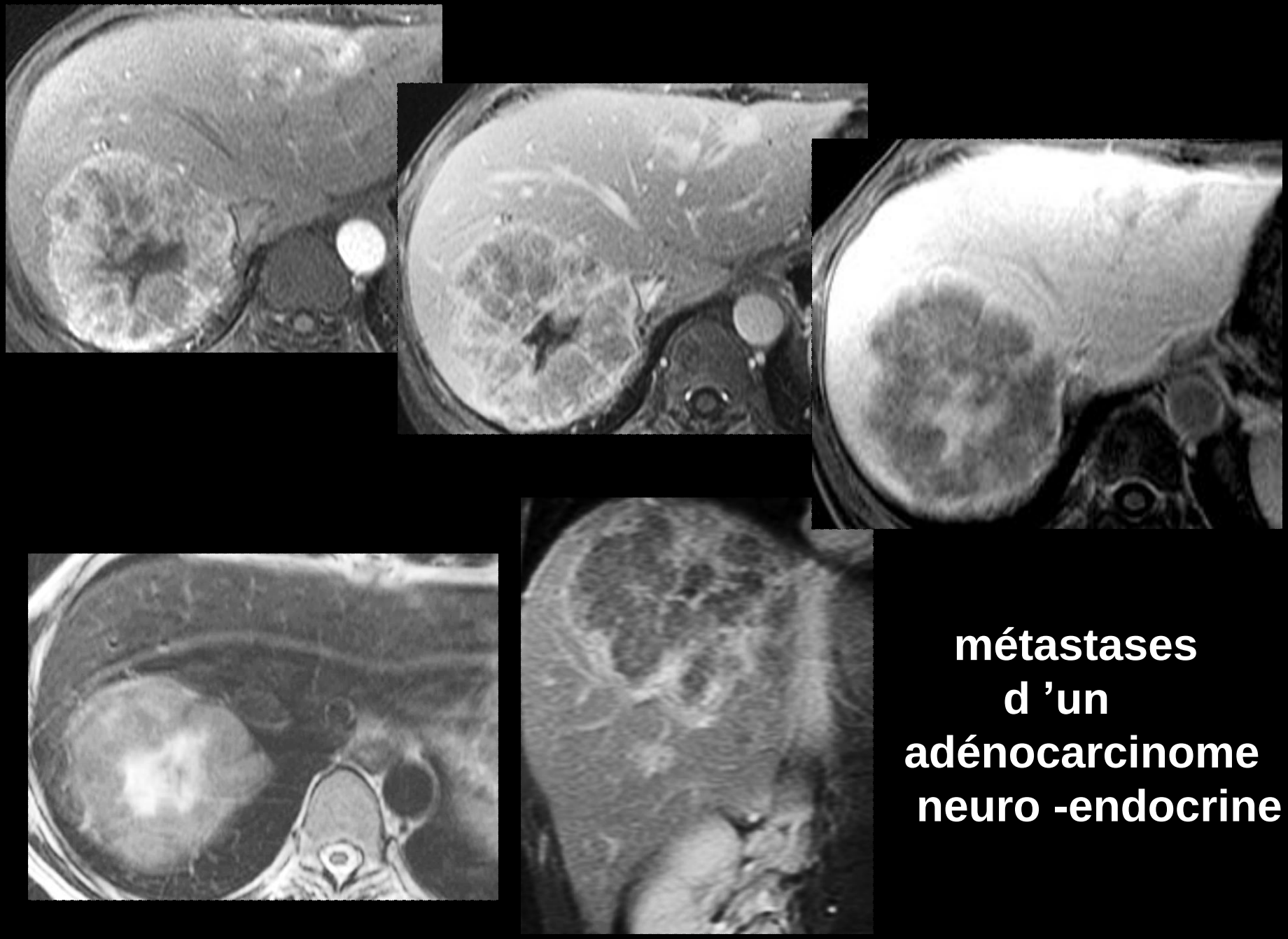


métastases d ’une tumeur neuro - endocrine



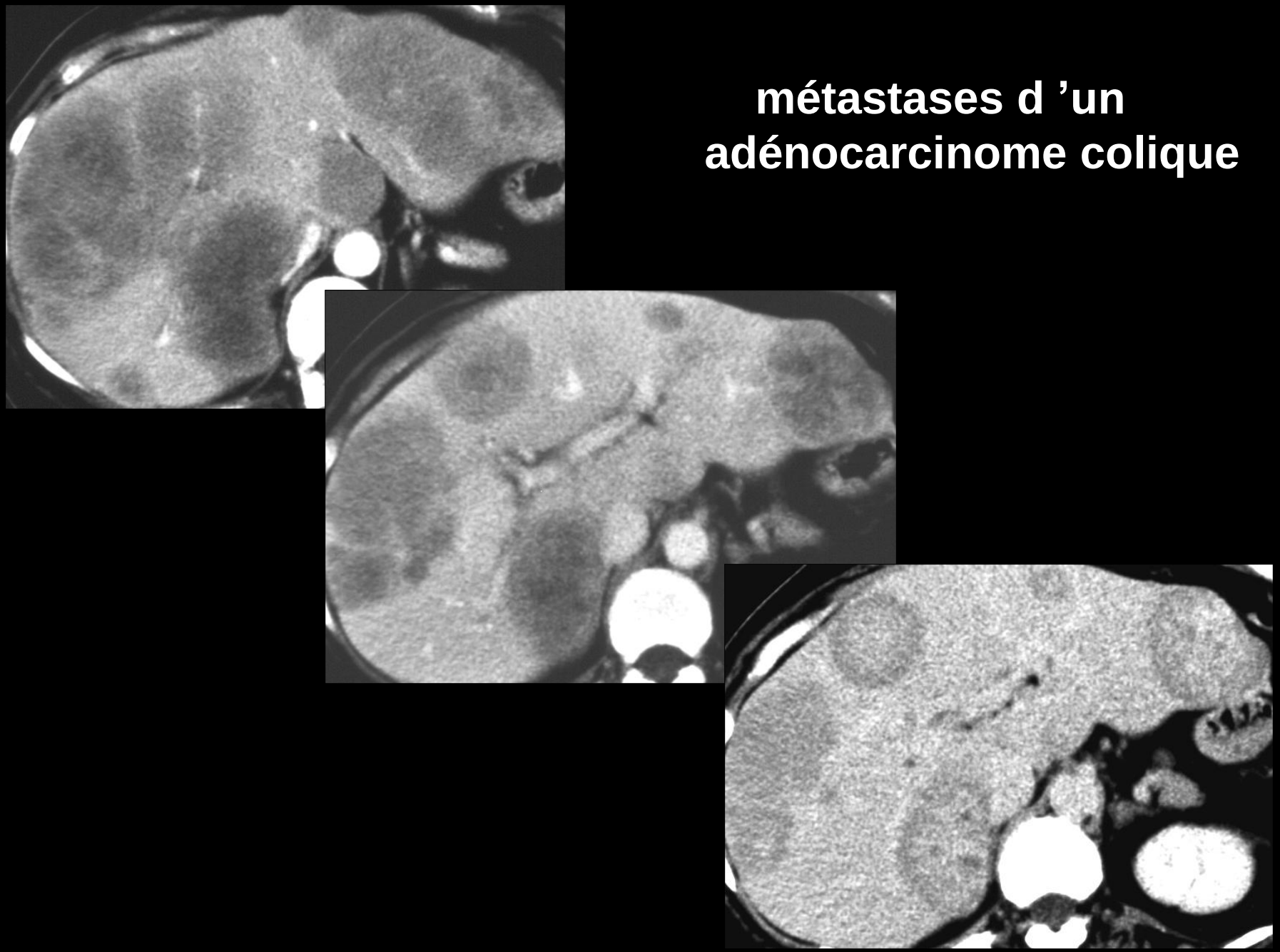


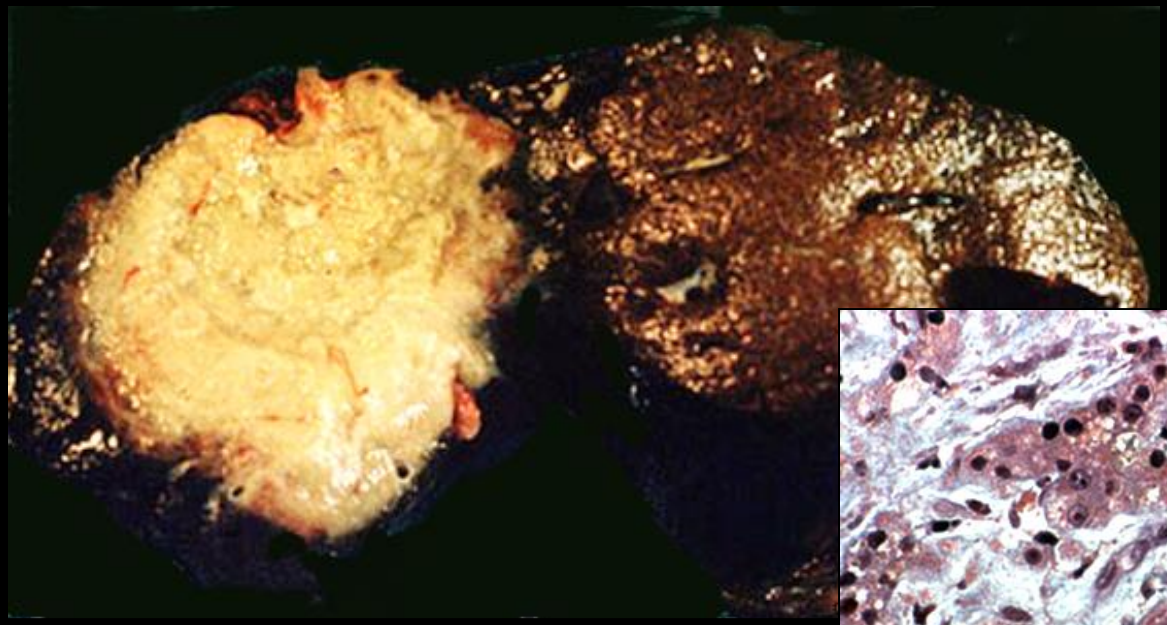


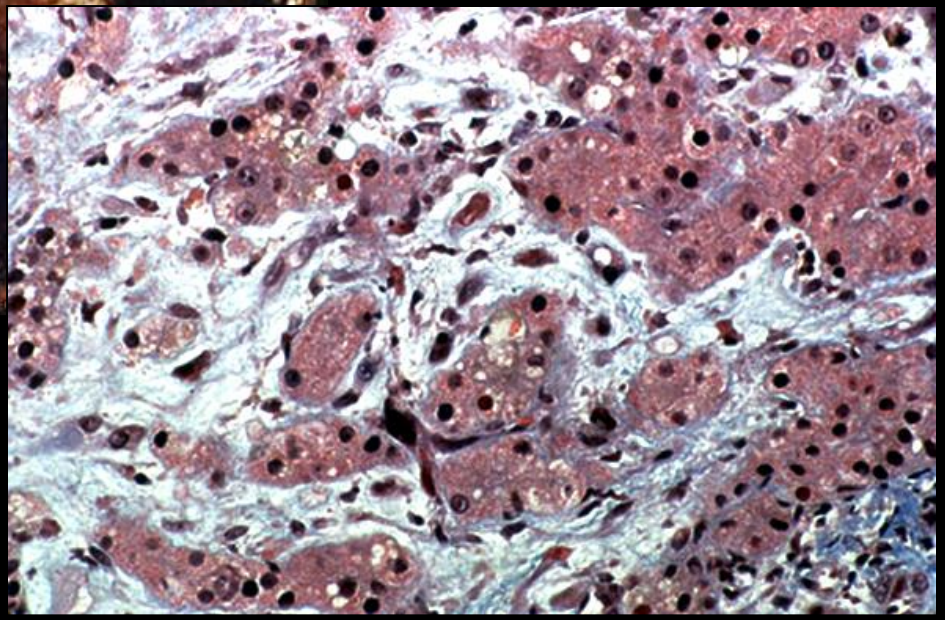


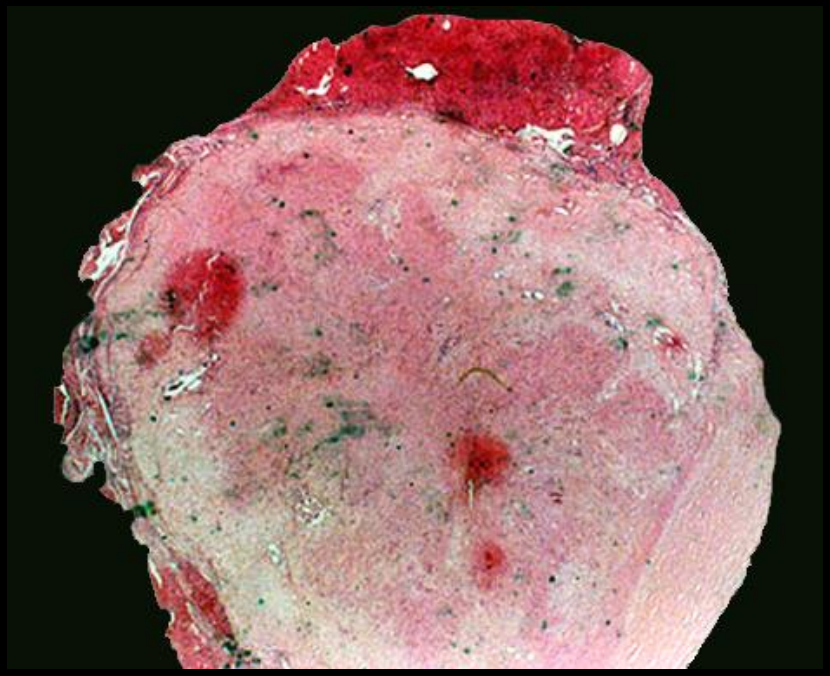
métastases
d ’un
adénocarcinome
neuro -endocrine

métastases d ’un adénocarcinome colique

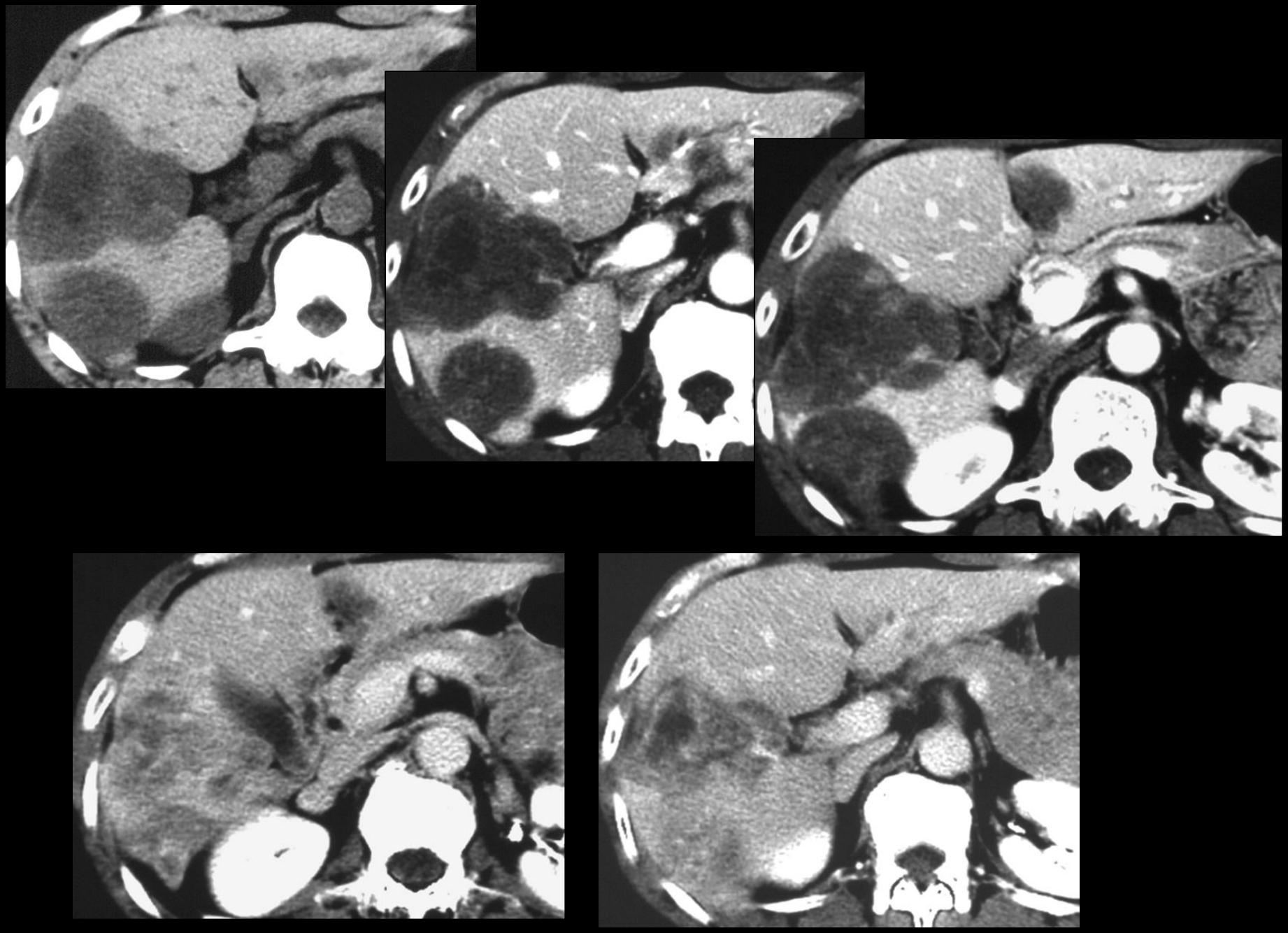


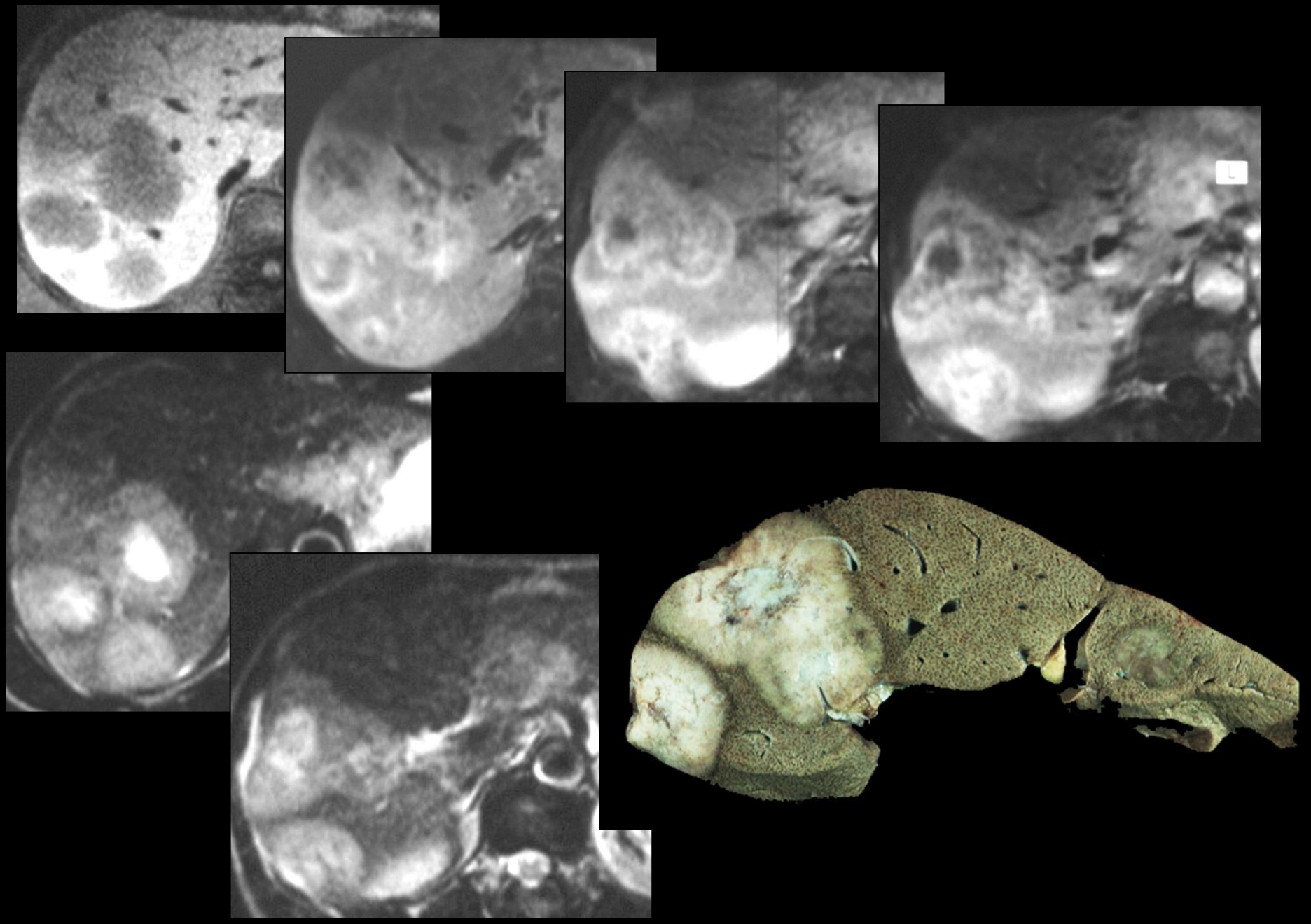




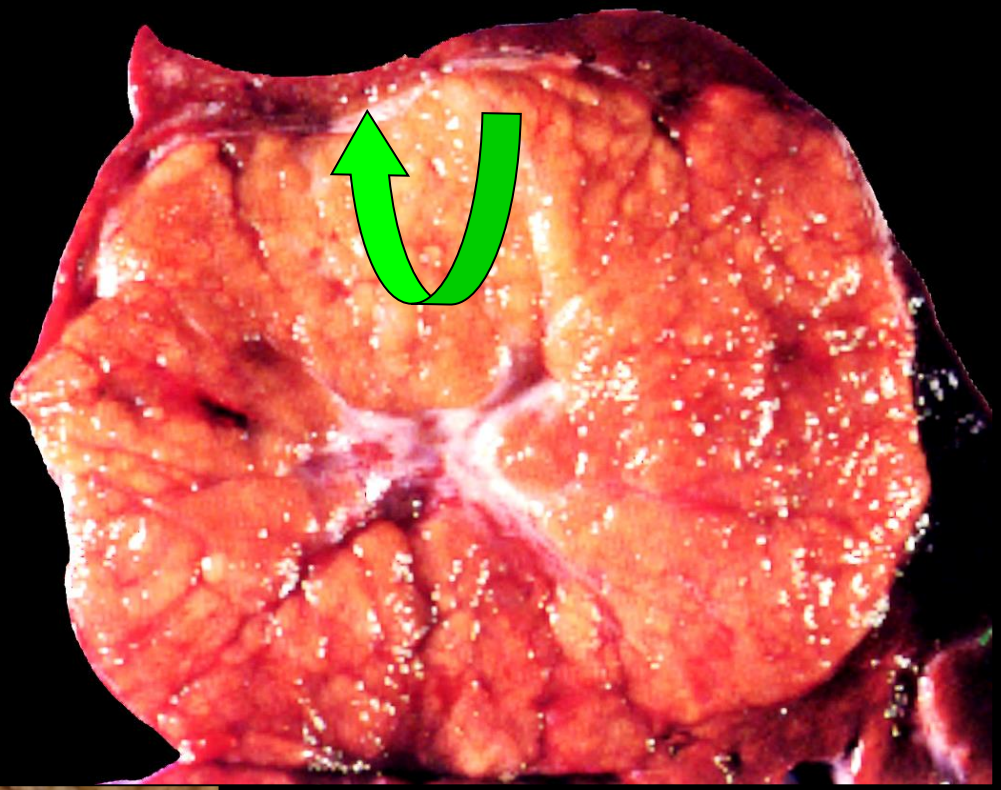


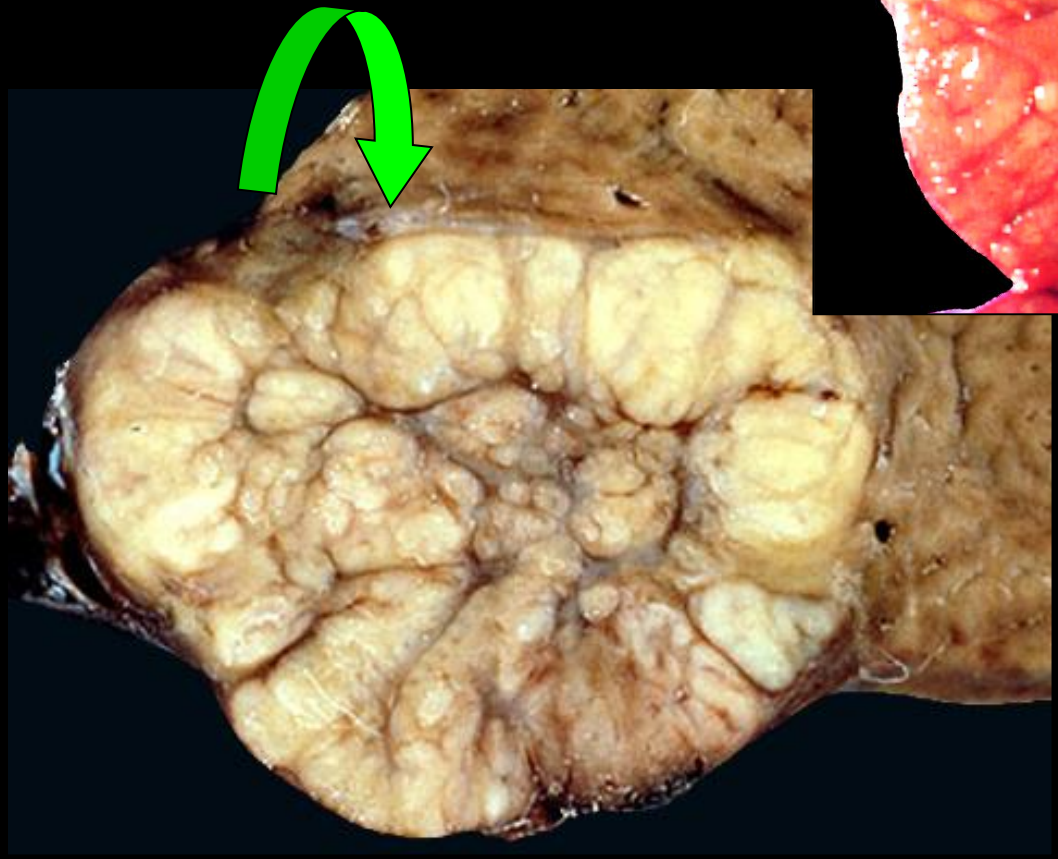
hémangio-endothéliome epithélioïde

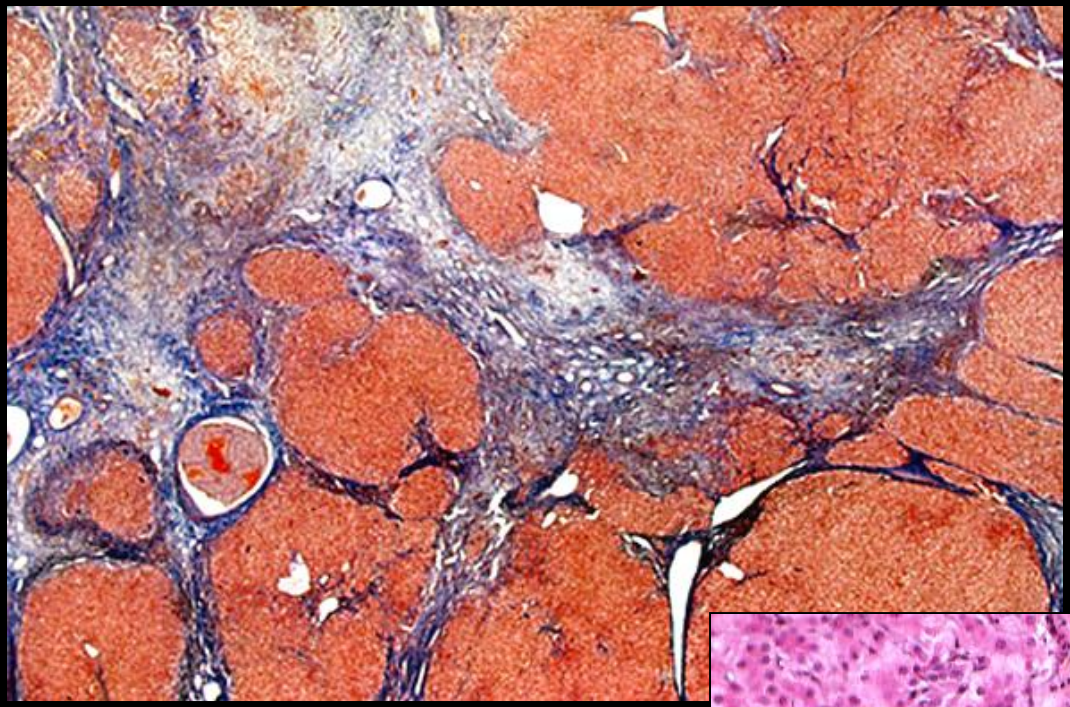


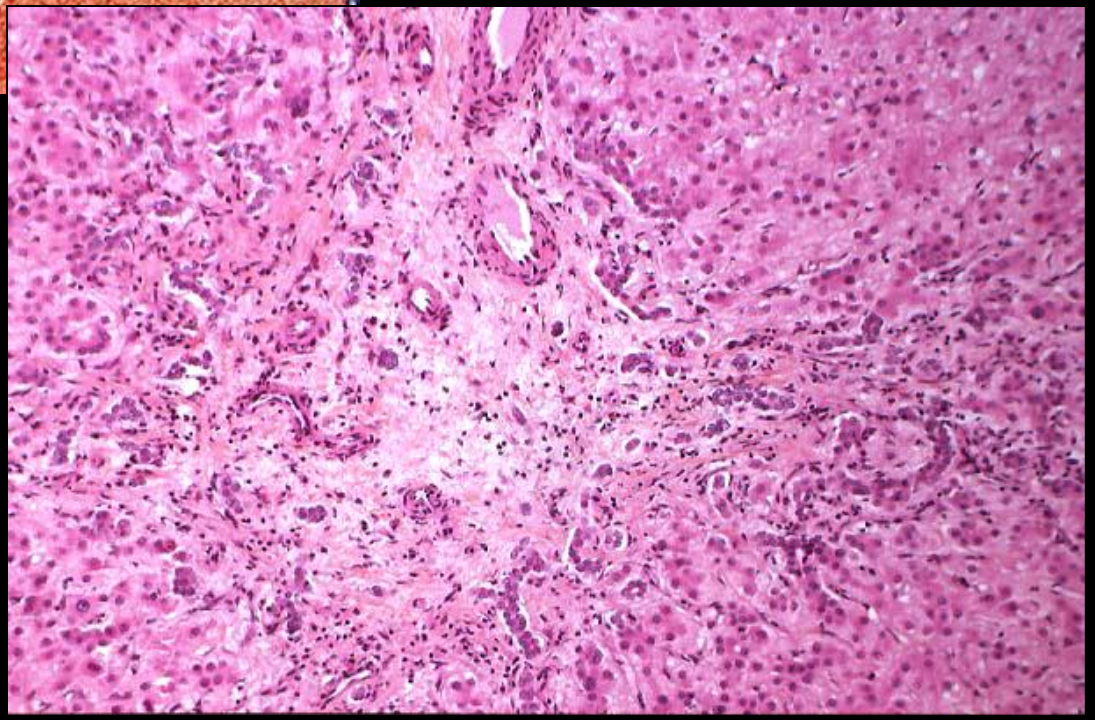


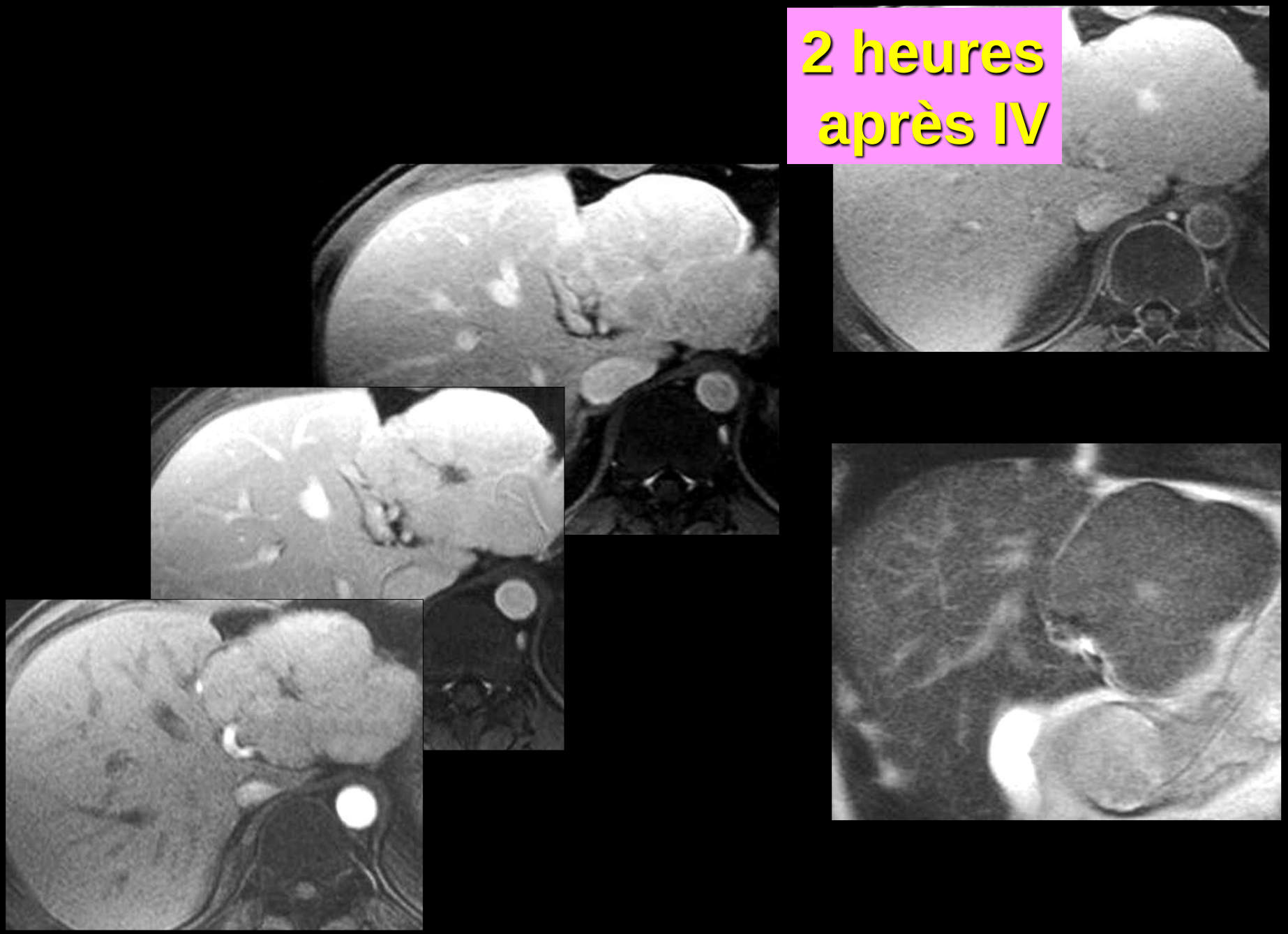
hyperplasie nodulaire focale

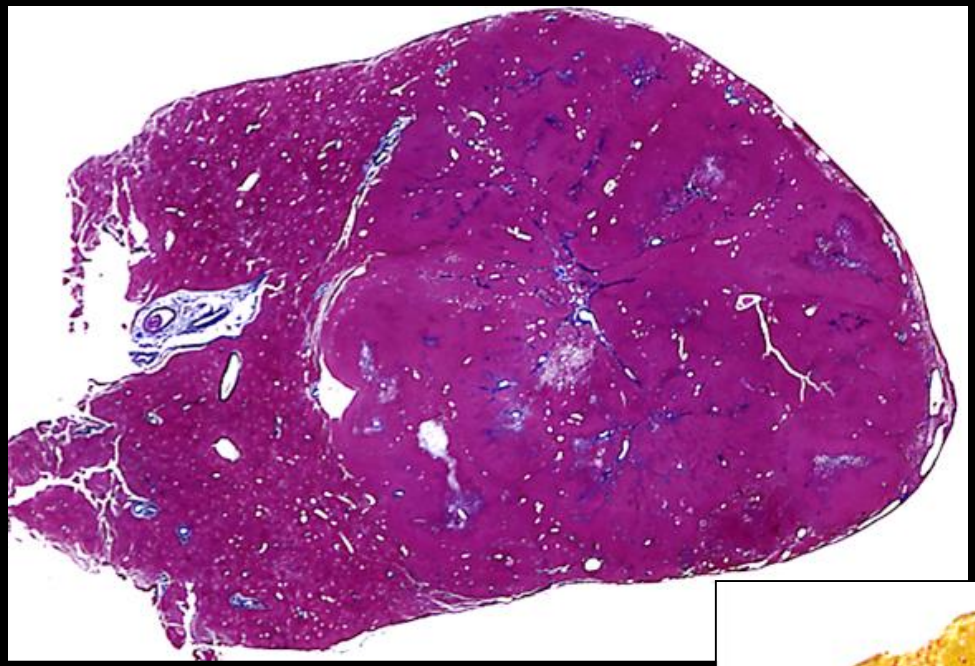


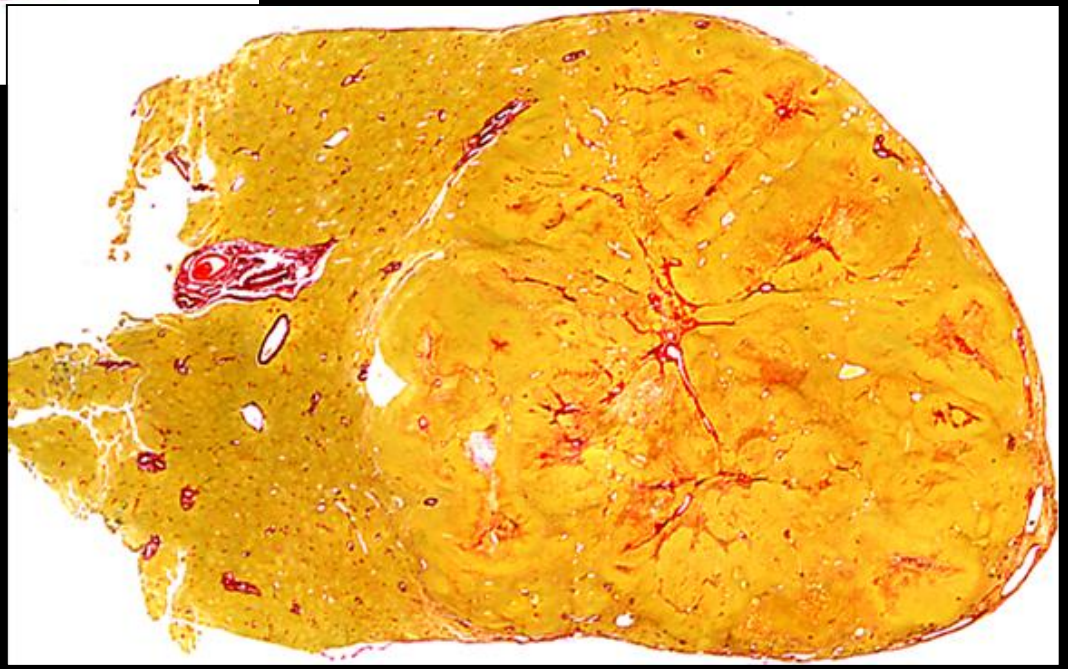


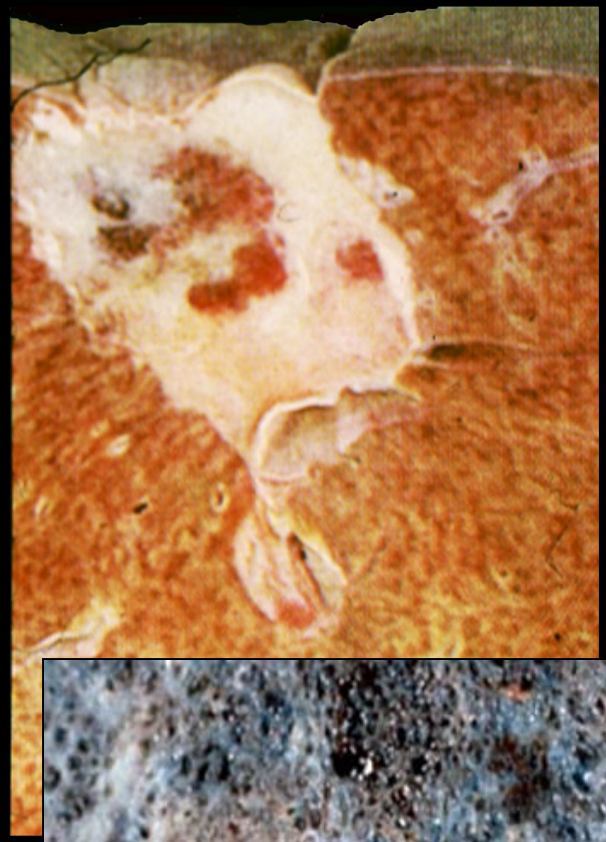


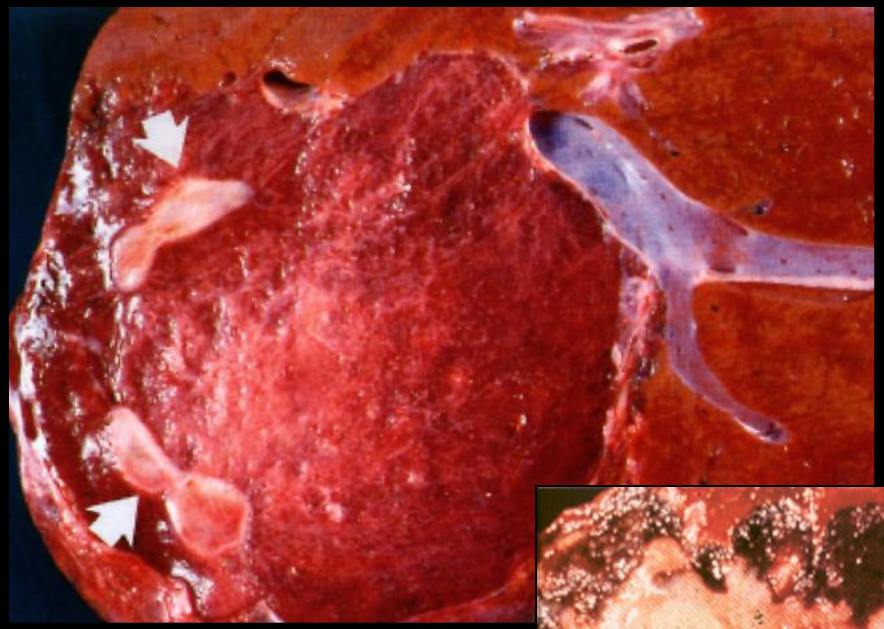


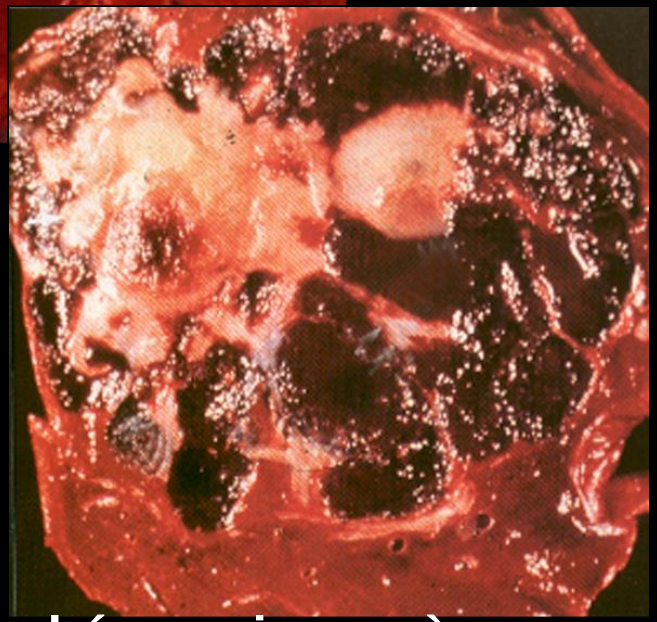

2 heures
après IV

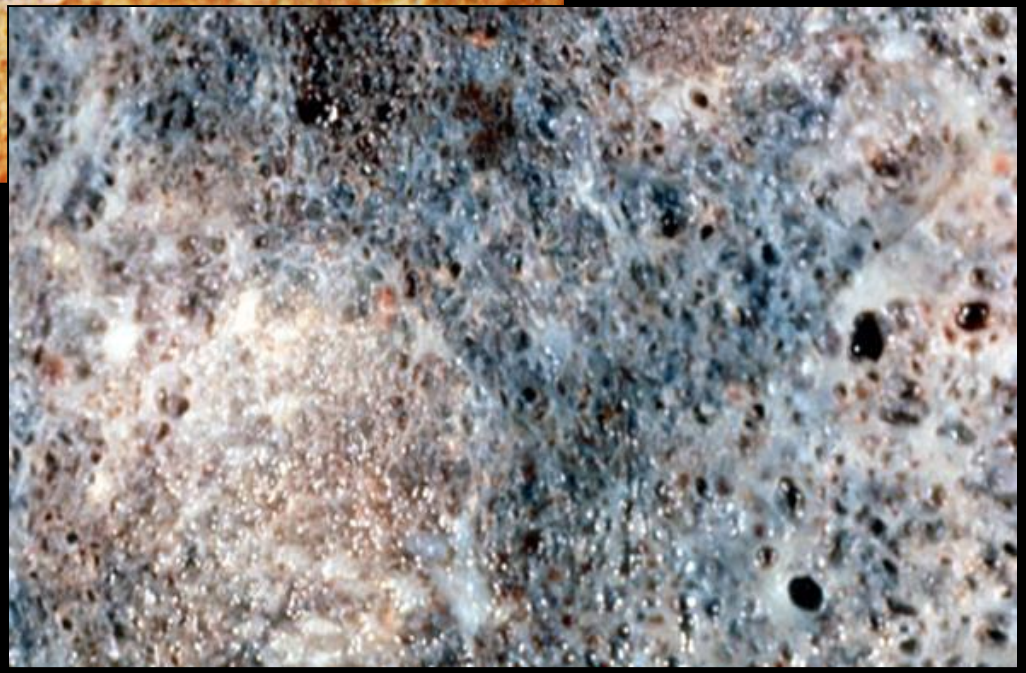




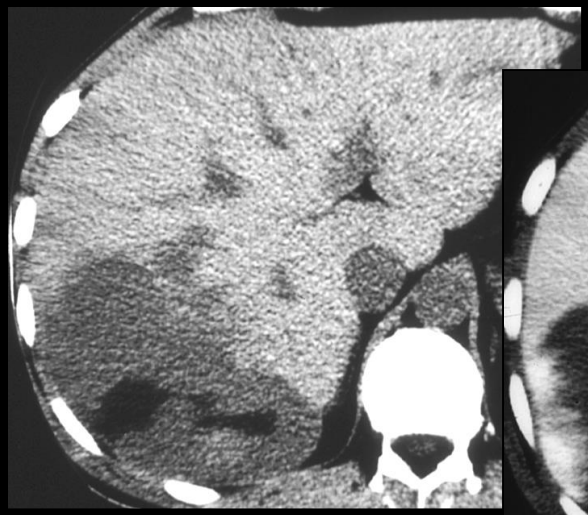


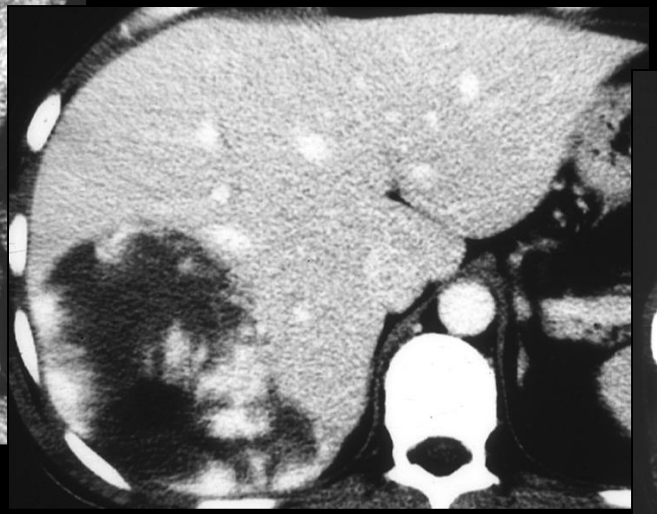


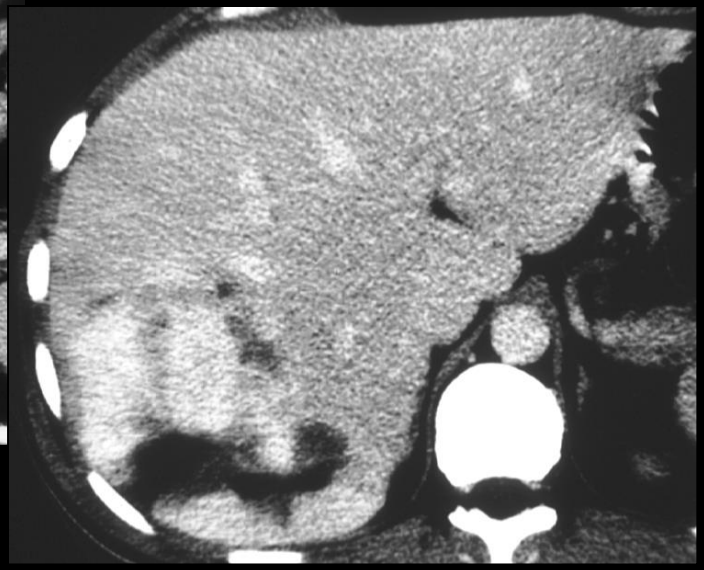




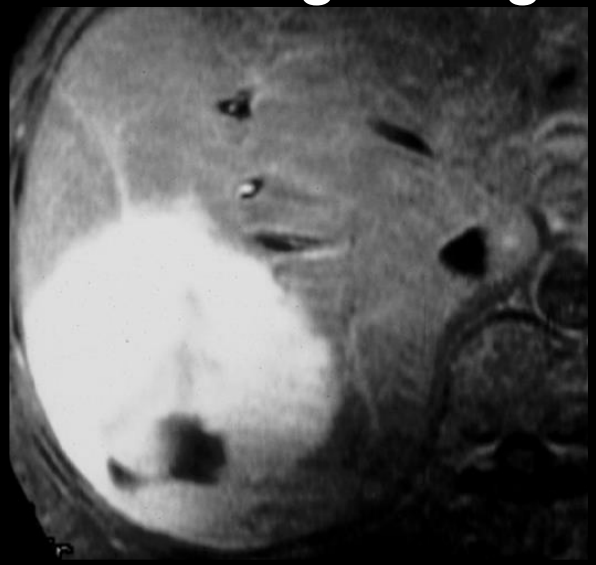
hémangiomes à composante fibreuse; "sclérosants" ou sclérosés

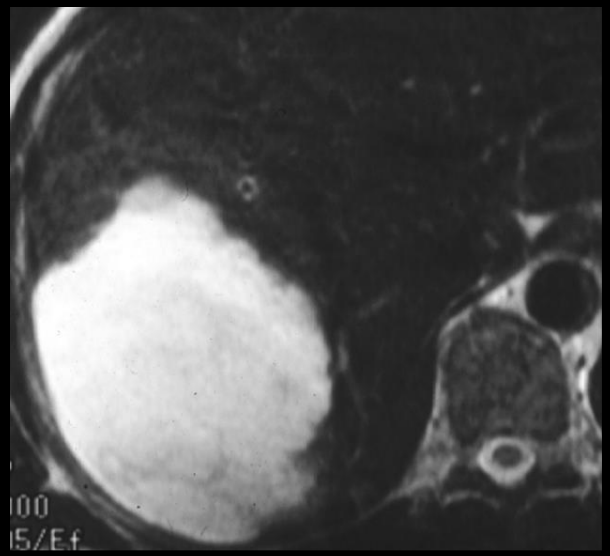


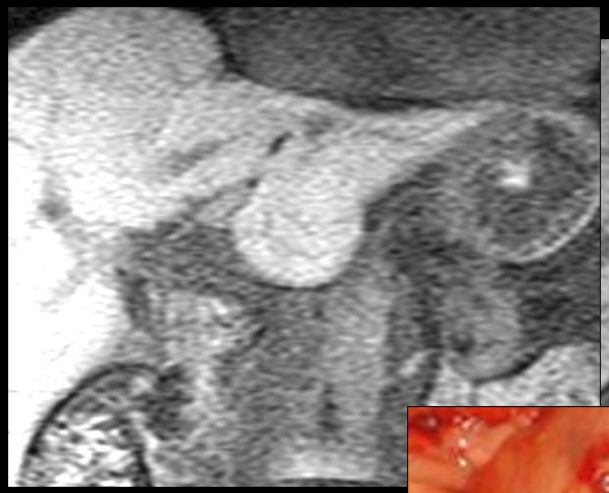


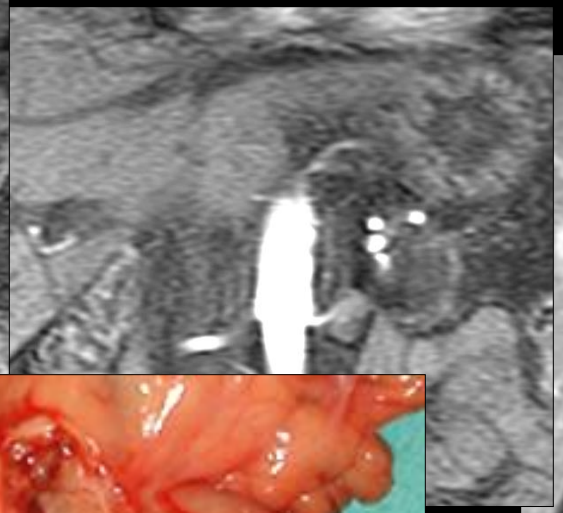


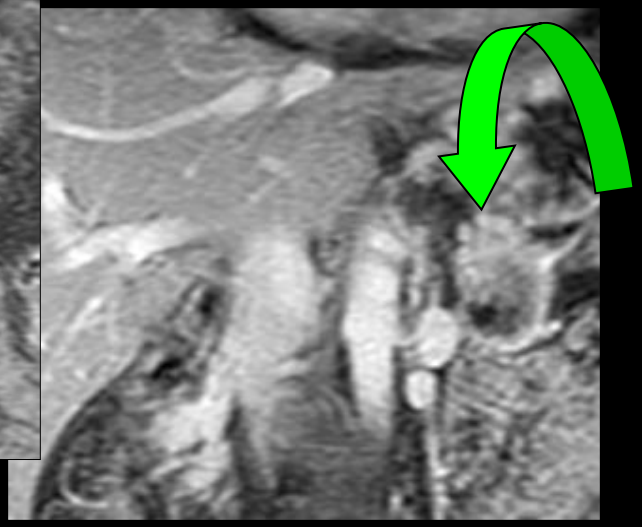
hémangiome géant sclérosé

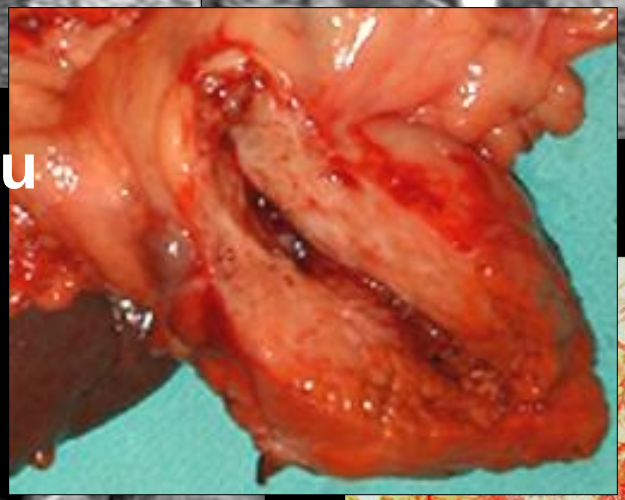




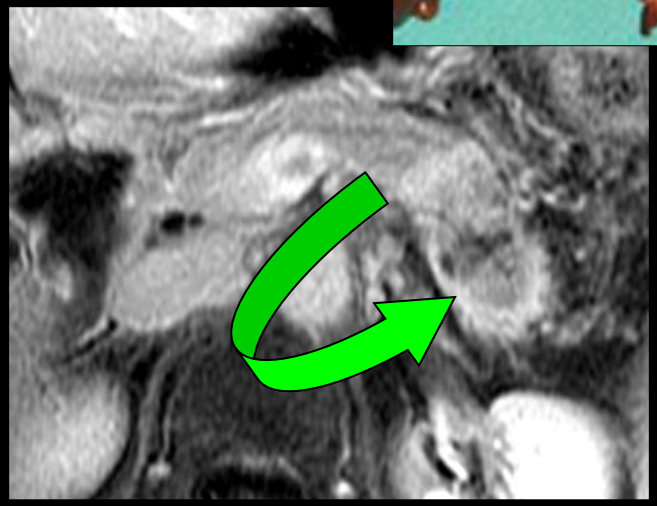


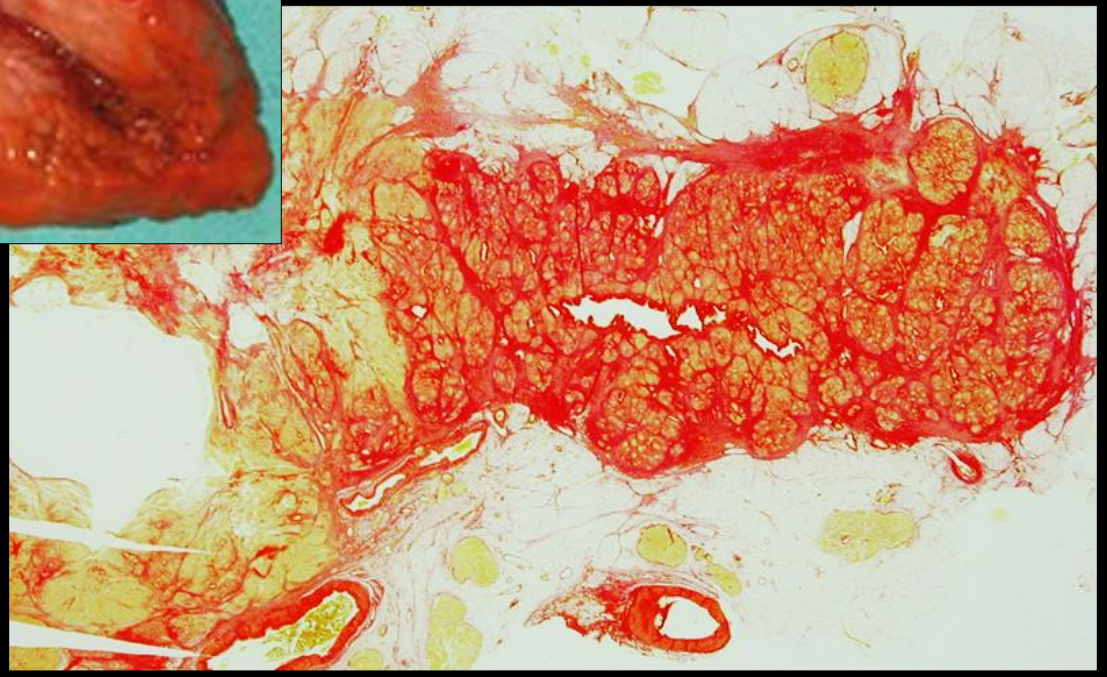


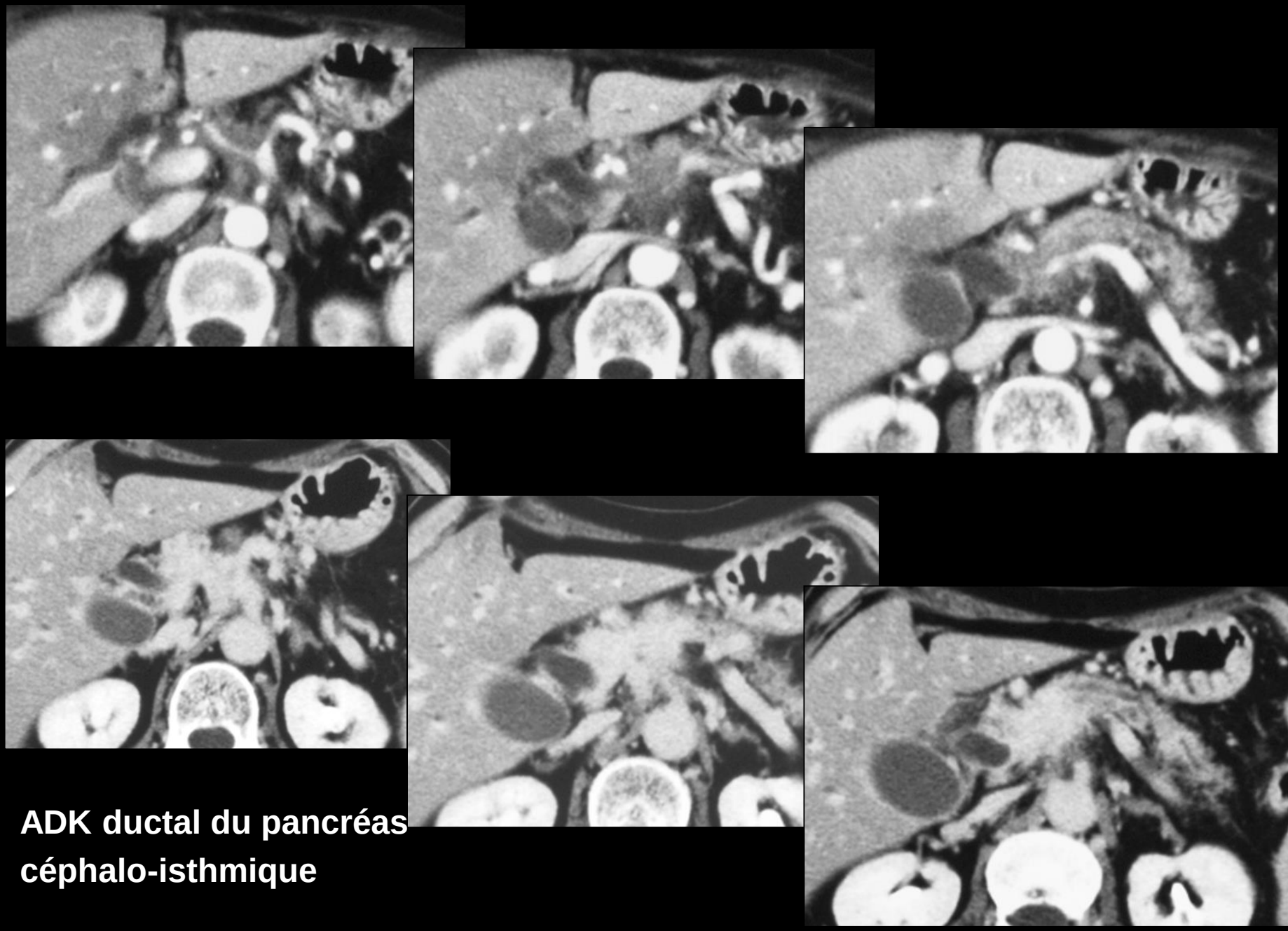




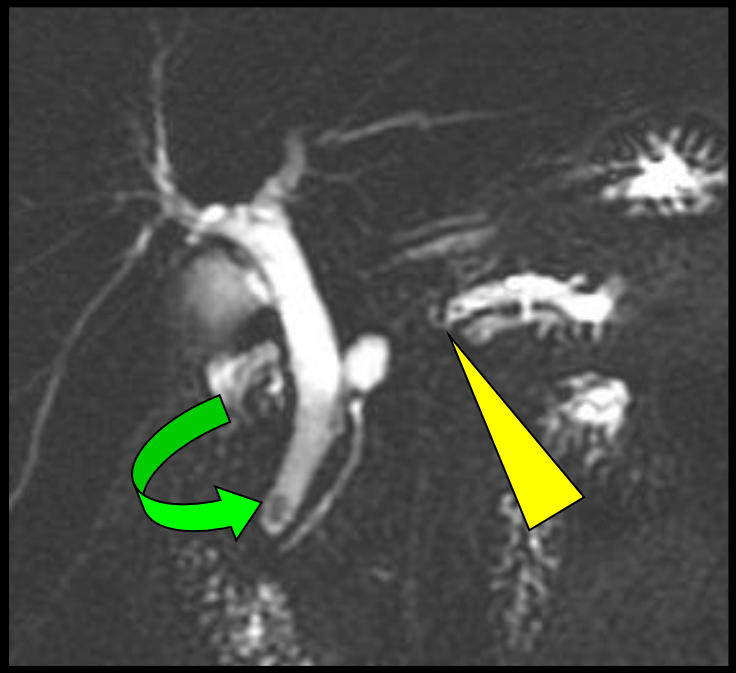
ADK ductal du pancréas caudal

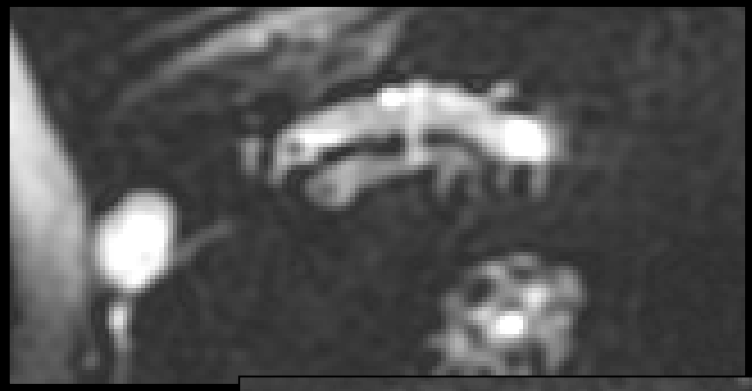


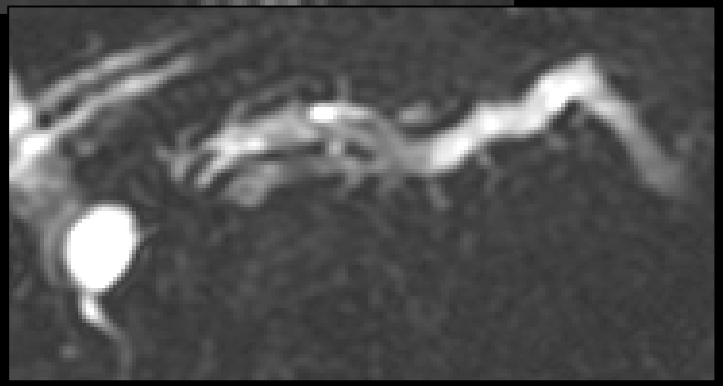


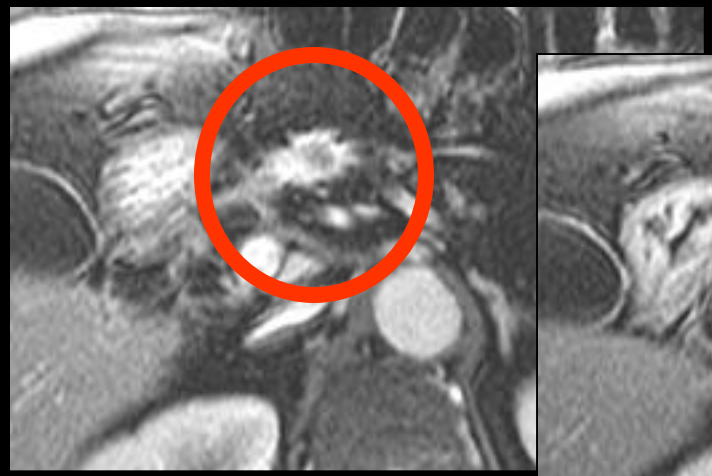


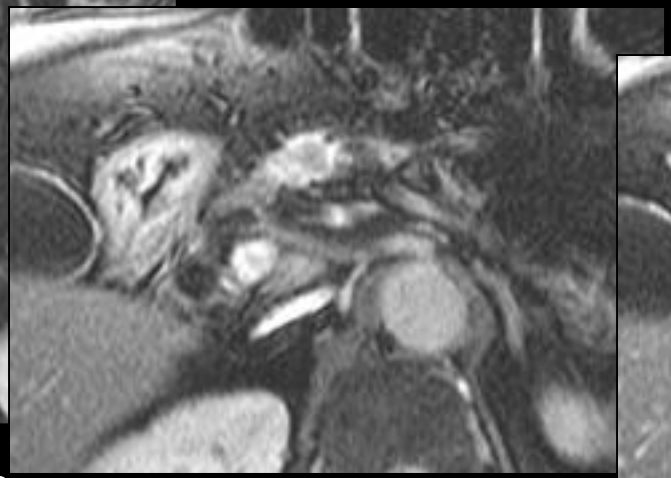
ADK ductal du pancréas céphalo-isthmique

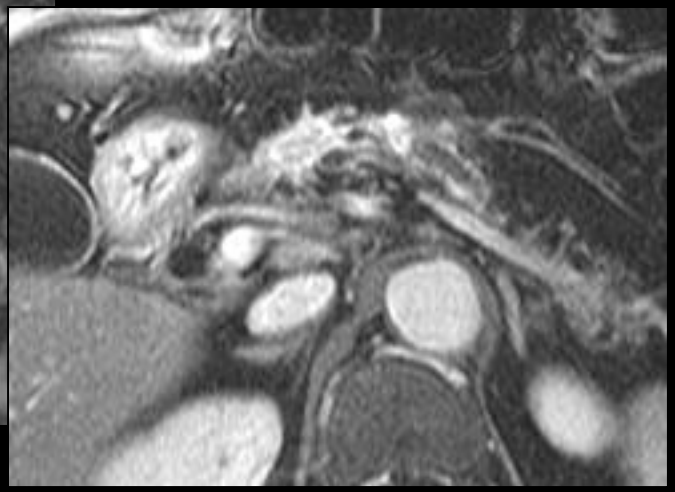












ADK ductal du pancréas céphalo-isthmique