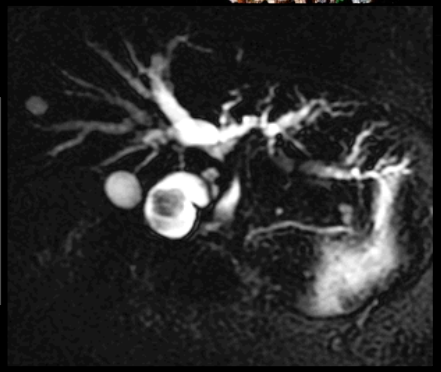
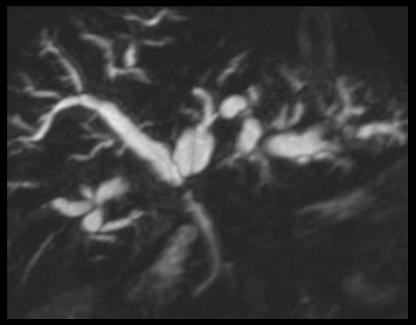
Bilio-pancreatic "tumor-like" lesions

1. Fibrous sclerosing (stenosing) cholangitis (cholangiopathies) and hepato-biliary inflammatory pseudo-tumors

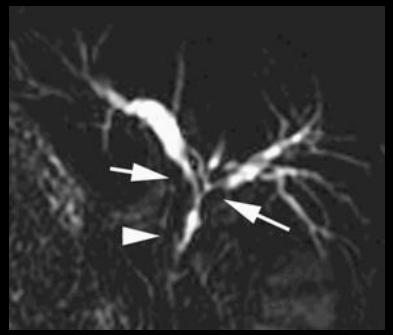


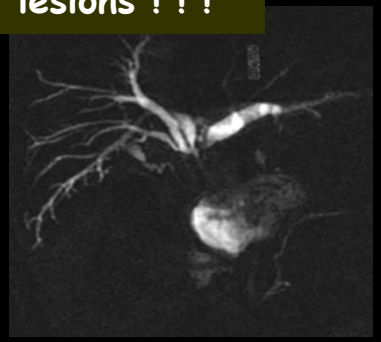
2. Autoimmune pancreatitis and pancreatic inflammatory pseudotumors

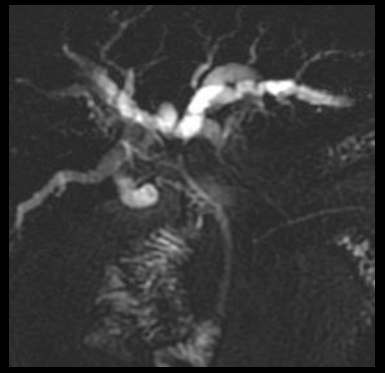


Only 2 among these 5 patients with biological cholestasis ± icterus have a malignant lesion of the biliary tract and should be operated .Can you identifiy them ?

5 MRCP ; only 2 malignant lesions ! ! !





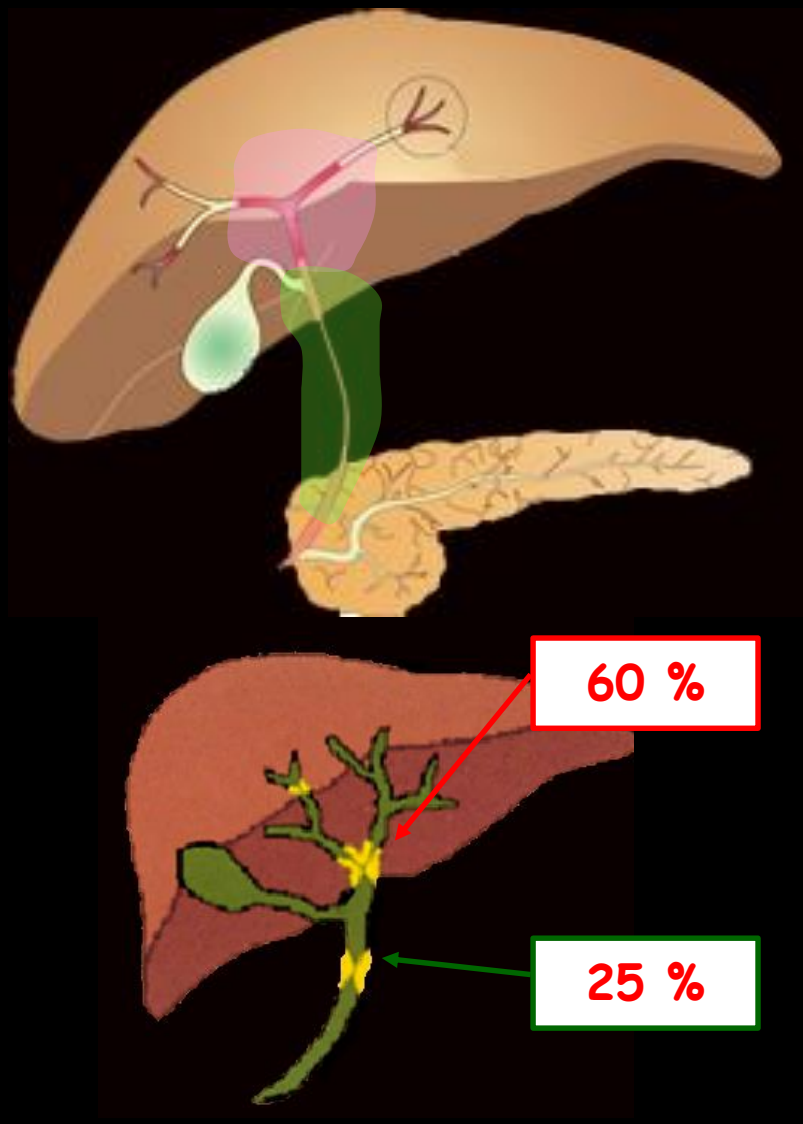


1a-Sclerosing (fibrous obliterating) cholangitis (cholangiopathies)

-cholangiocarcinoma (biliary adenocarcinoma) accounts for 15 % of hepatobiliary cancer

-60 % of extrahepatiic cholangiocarcinoma involve hilar structures (Klatskin's tumor) ; 25 % are main bile duct cholangiocarcinoma

-recent surgical studies have shown that approximately 10 to 24 % of patient operated for biliary obstruction presumed to be hilar or main bile duct malignant lesion are ultimately proved to have idiopathic benign stricture on final histologic review



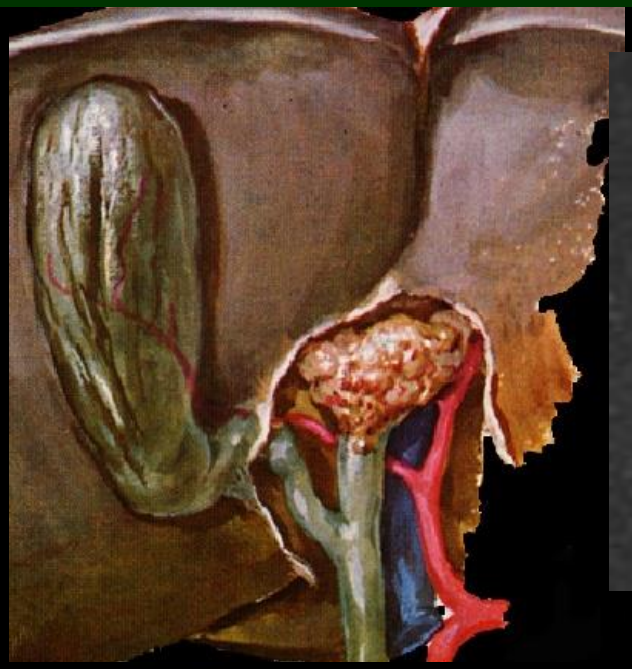
Corvera CU et al Clinical and pthologic features of proximal biliary stricture masquerading as hilar chlangiocarcinoma J Am Coll Surg 2005;201:862-9

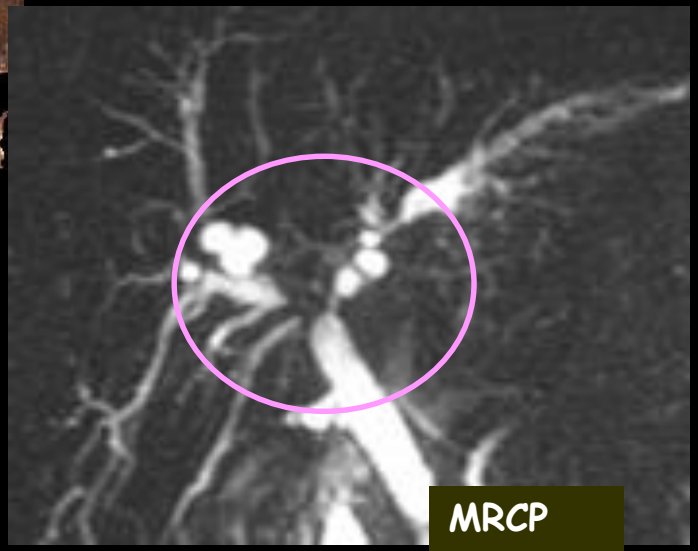
ErdoganD et al Immunoglobulin G4 related sclerising cholangitis in patients resected for presumed malignant bile duct strictures Brit J Surg 2008;95:727-34

Clayton RA et al Incidence of benign pathology in patients undergoing heatic resection for suspected malignancy Surgeon 2003; 1:32-38

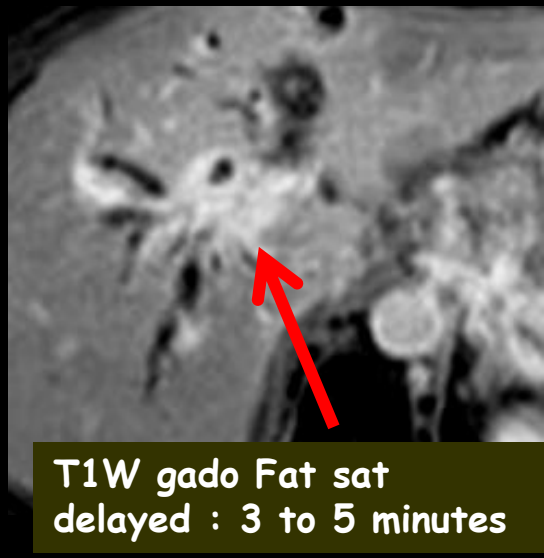
Klatskin's tumors ;classical presentations

mass forming hilar cholangiocarinoma

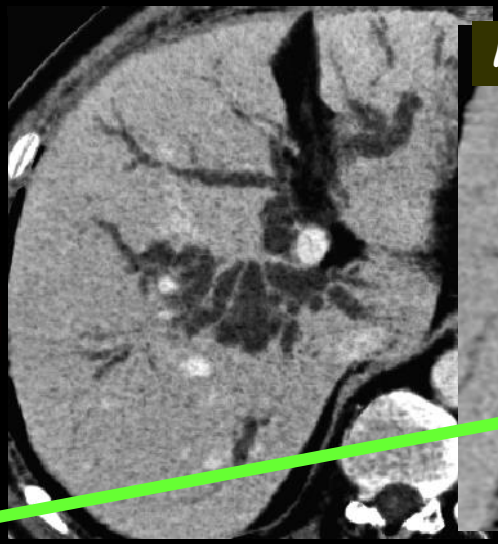




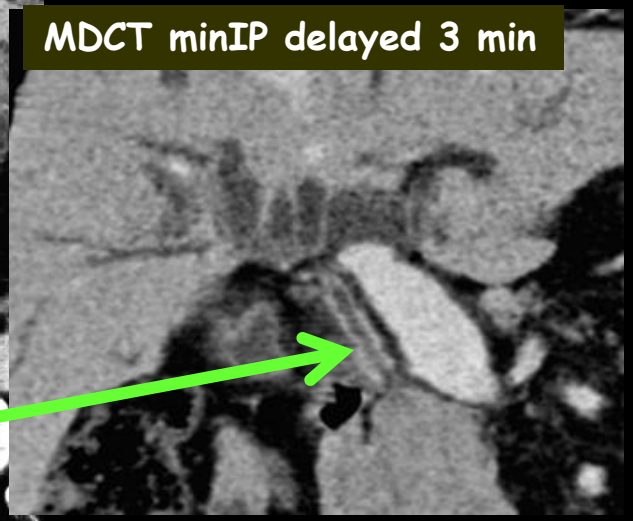
MRCP



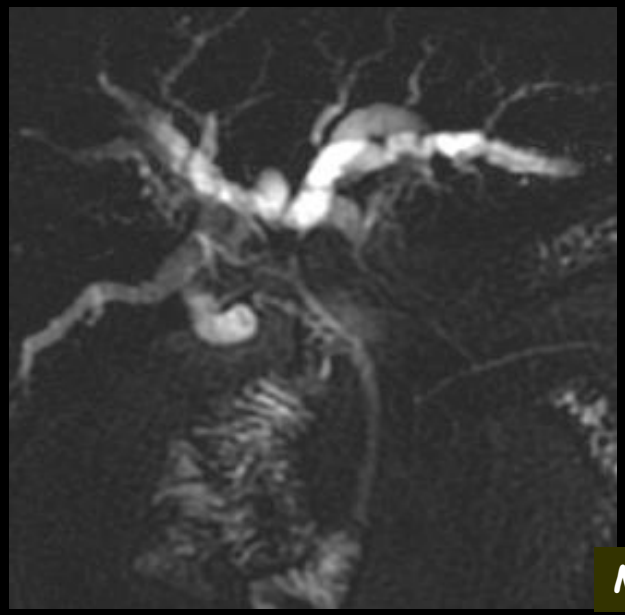
T1W gado Fat sat
delayed : 3 to 5 minutes

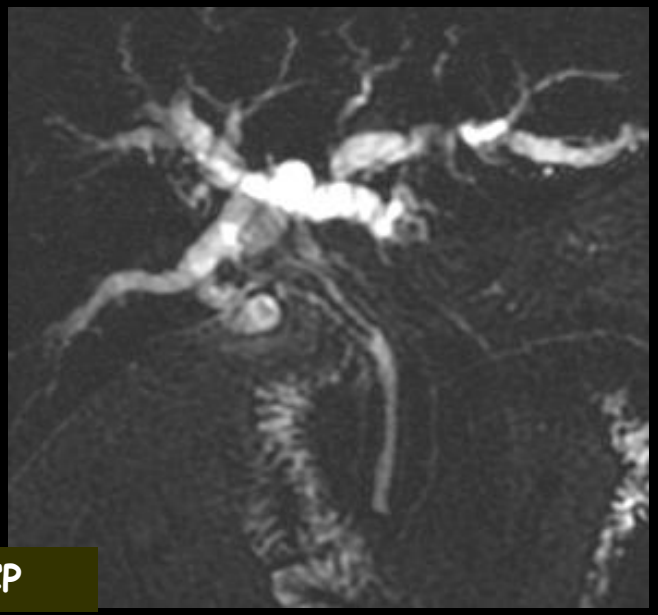


MDCT minIP delayed 3 min



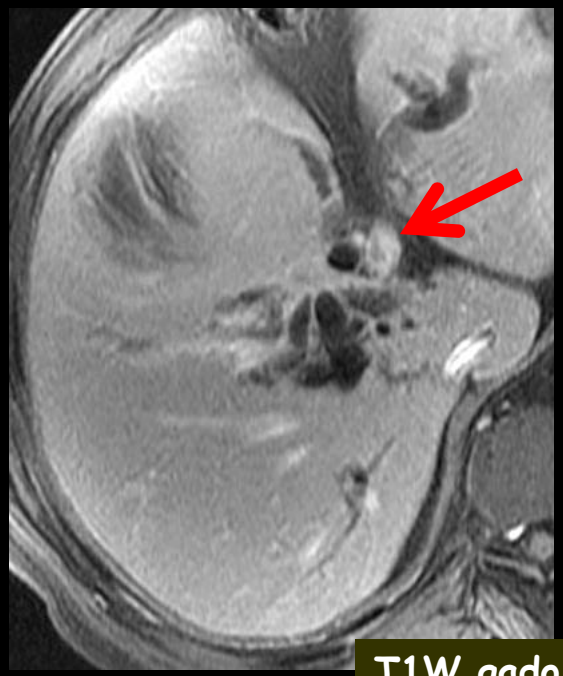
infiltrating hilar and main bile duct cholangiocarcinoma

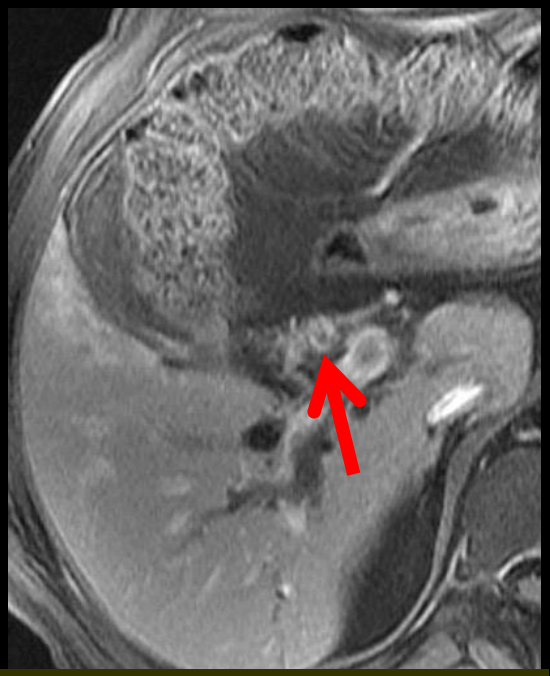


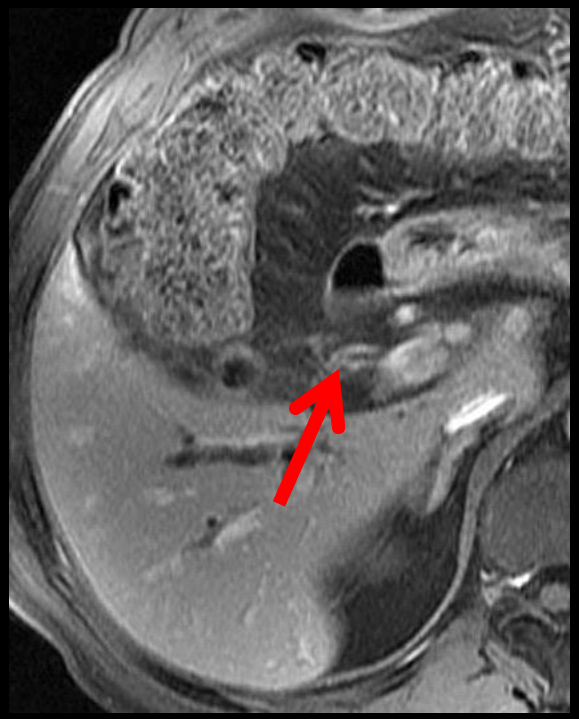


infiltrating cholangiocarcinoma of the hepatic duct with hilar involvement

MRCP

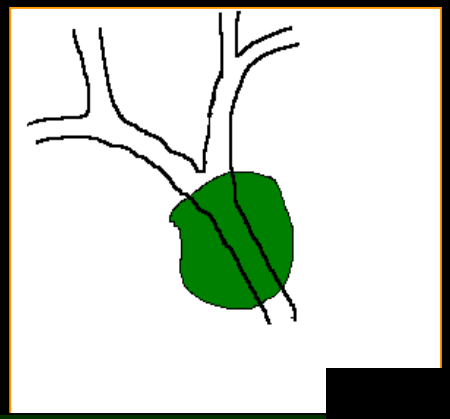




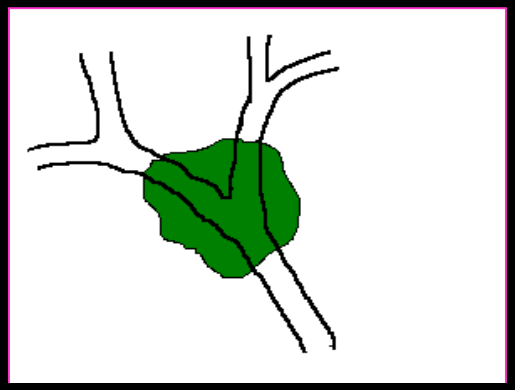


T1W gado Fat sat; delayed acquisition

infiltrating Klatskin's tumor with liver metastases 3T MRI



TYPE I

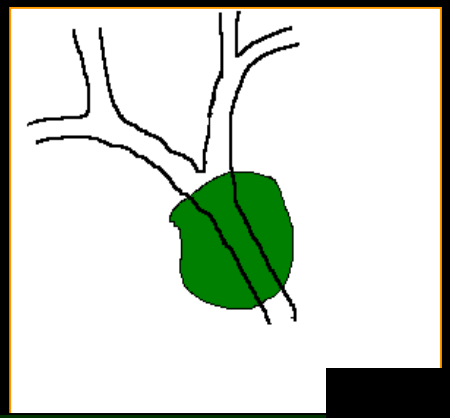


TYPE II

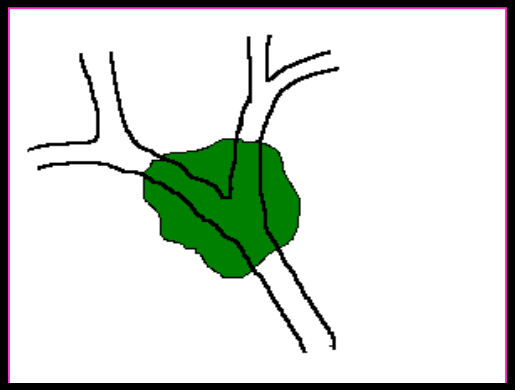
O.Durieux,S.Agostini
Marseille

Bismuth Cornette I or II : main bile or proximal biliary duct resection + biliary intestinal anastomose (Roux en Y hepatico jejunostomy)

PJ Valette Lyon



TYPE I



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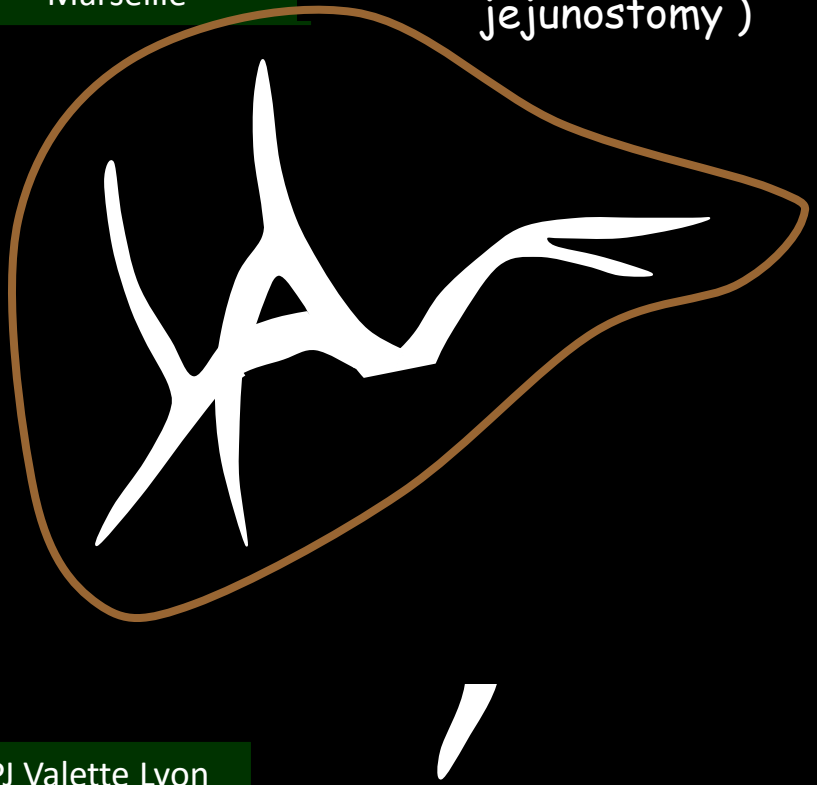
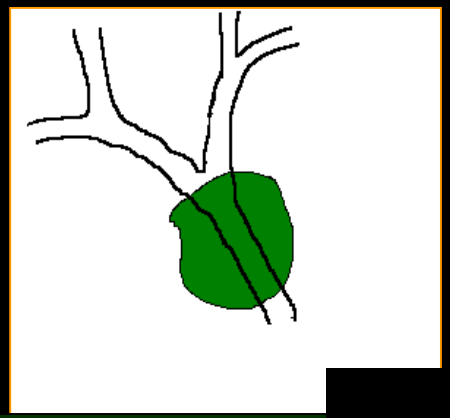


PJ Valette Lyon



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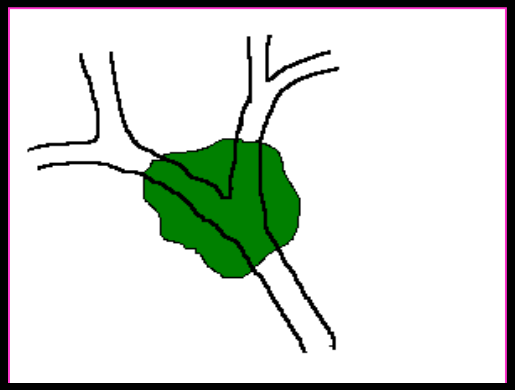

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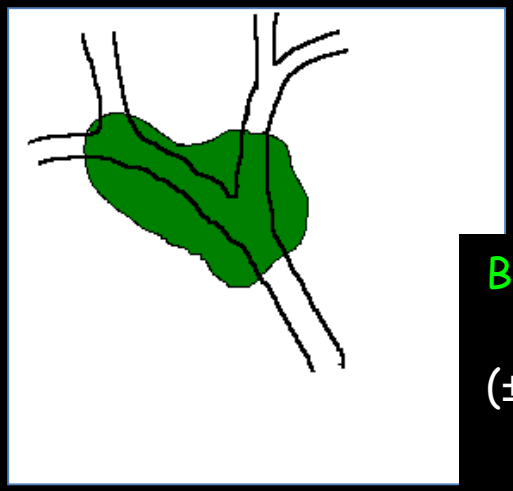
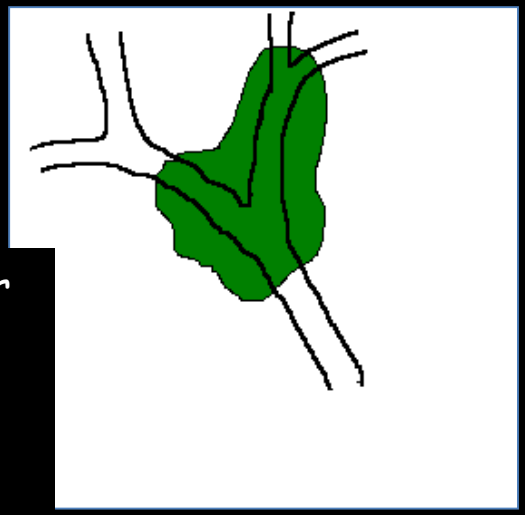
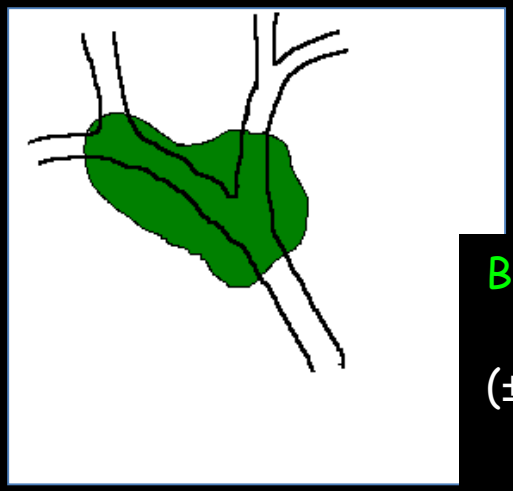


TYPE III droit et III gauche

Bismuth-Cornette III : extended right or left hepatectomy

(± previous right lobe portal embolisation for extended right hepatectomy)





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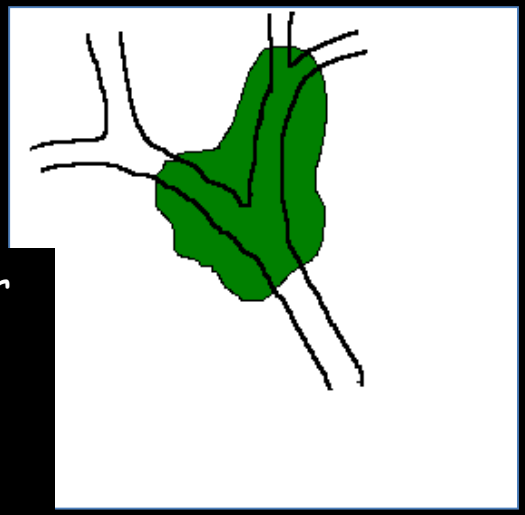

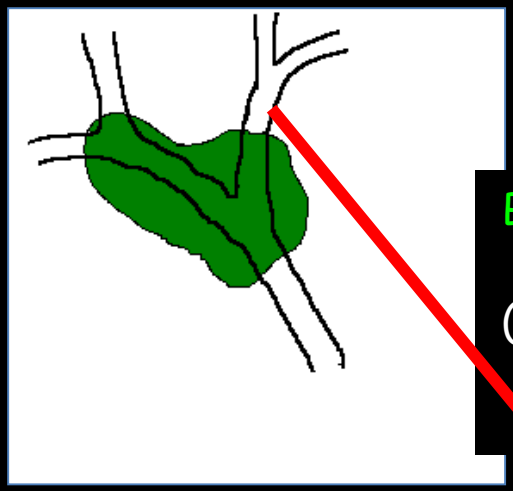

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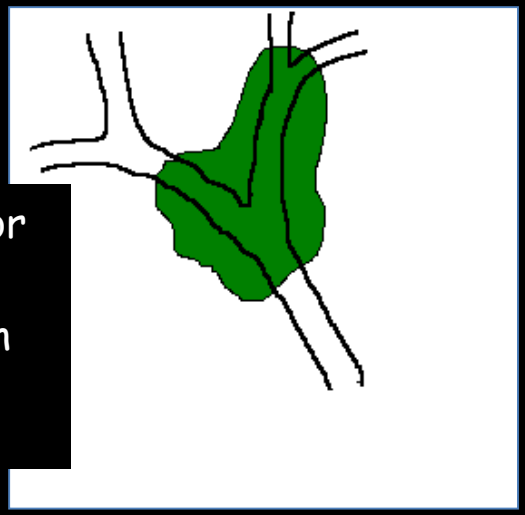
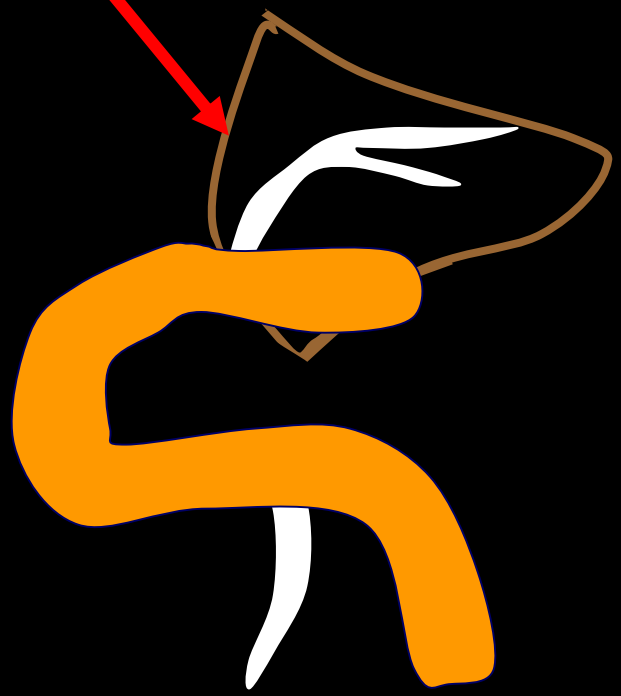
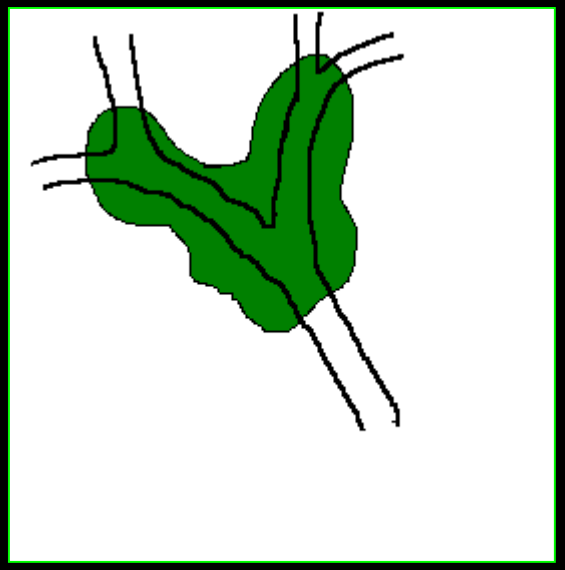
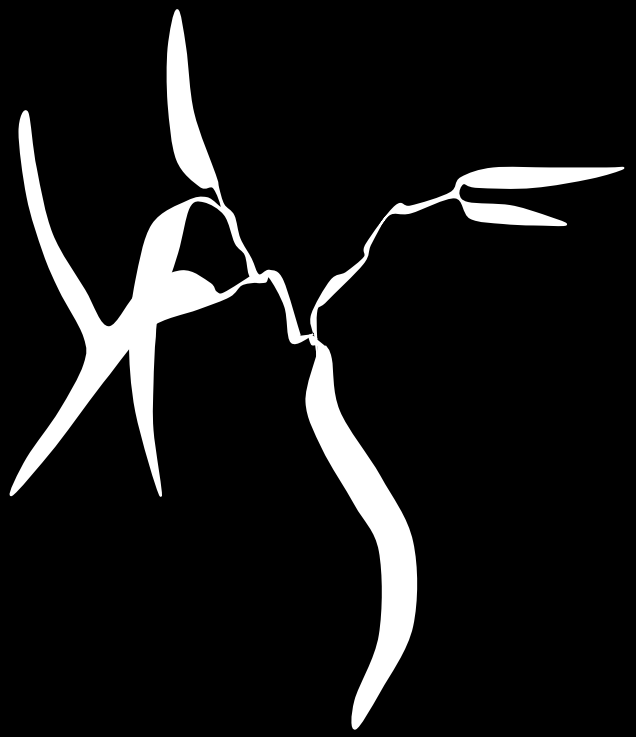




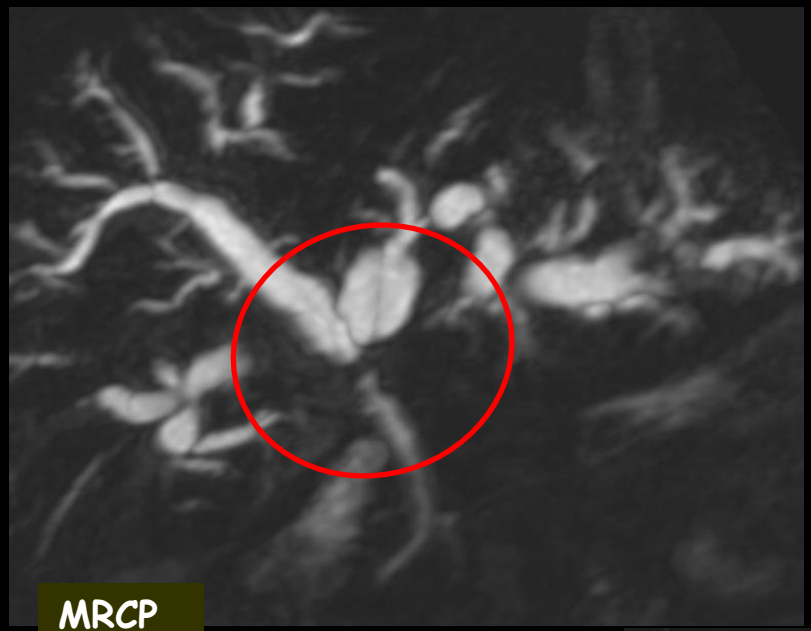


TYPE IV

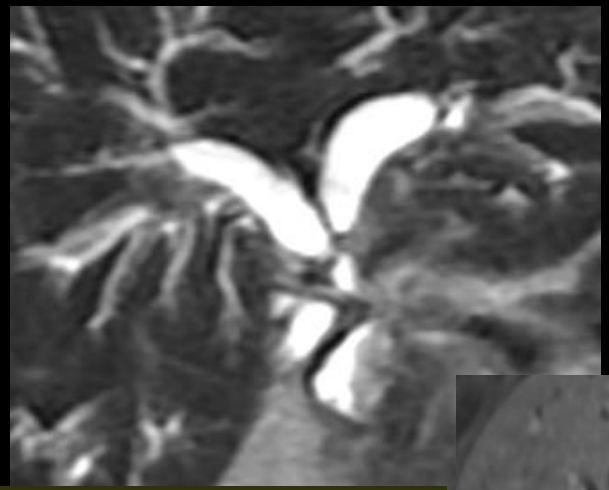


Bismuth-Cornette IV : no resection surgery ; palliative biliary diversion : endoprosthesis with prefered percutaneously transhepatic approach

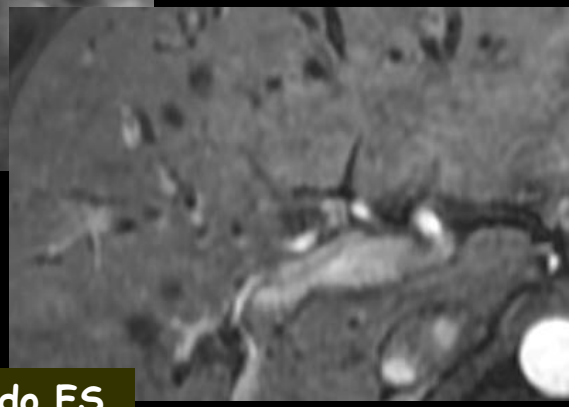
33 y.o man , subicterus for ten days , intense asthenia ;anorexia .
Mild and fluctuating biological cholestasis (total serum bilirubin between 50 and 80 mg/L)

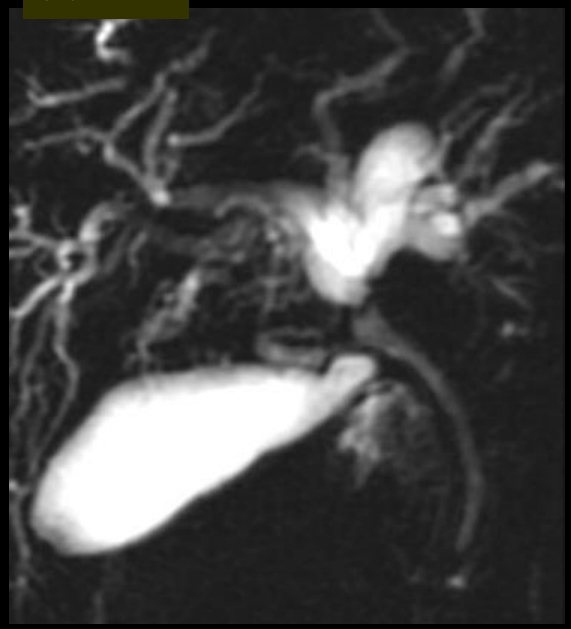


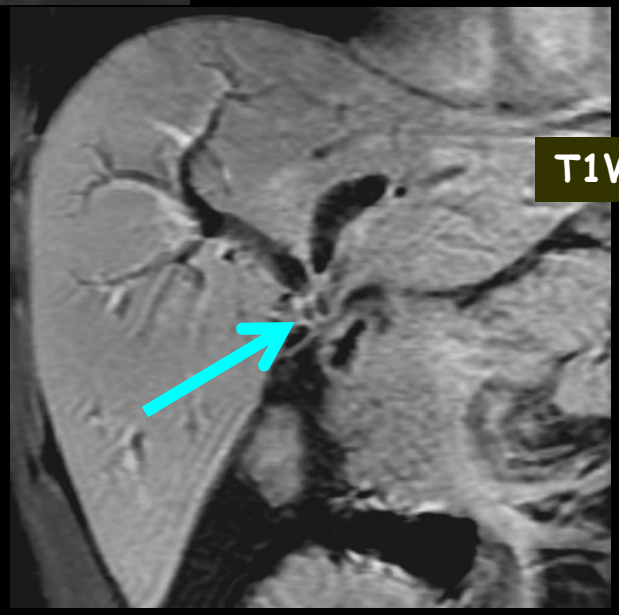
MRCP



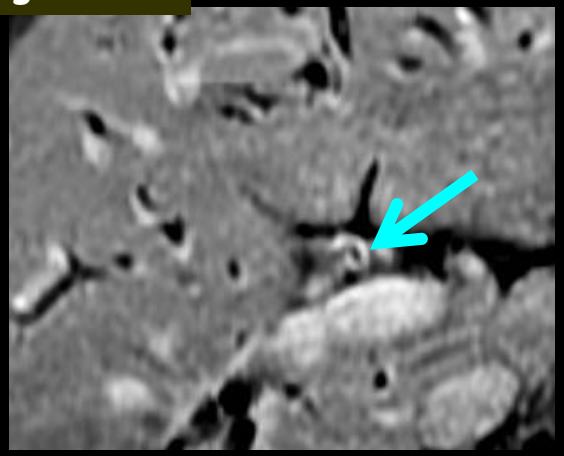
SSFSE short eff TE



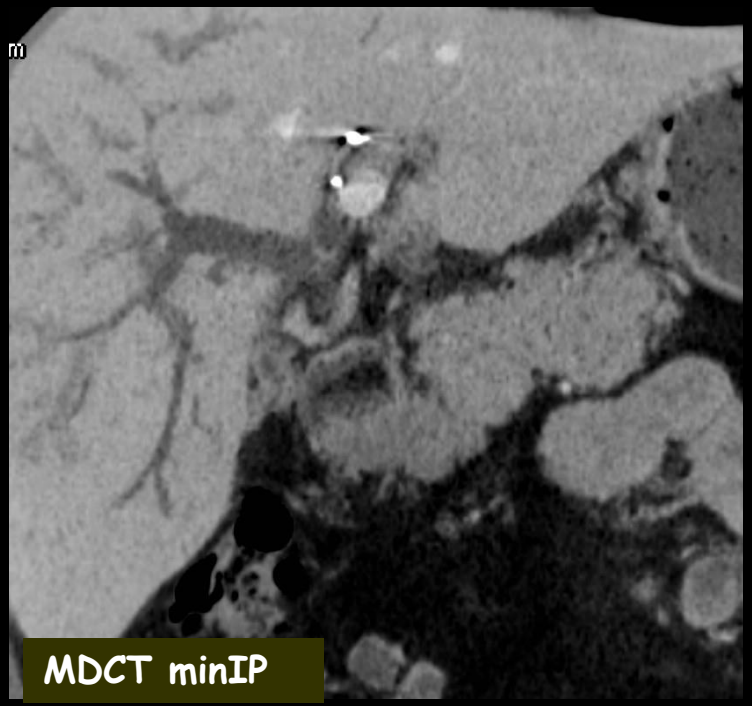




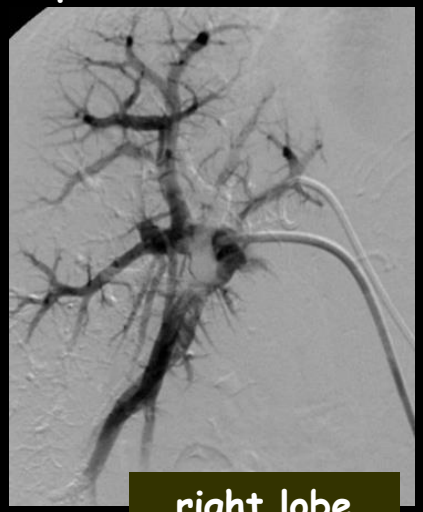
T1W gado FS



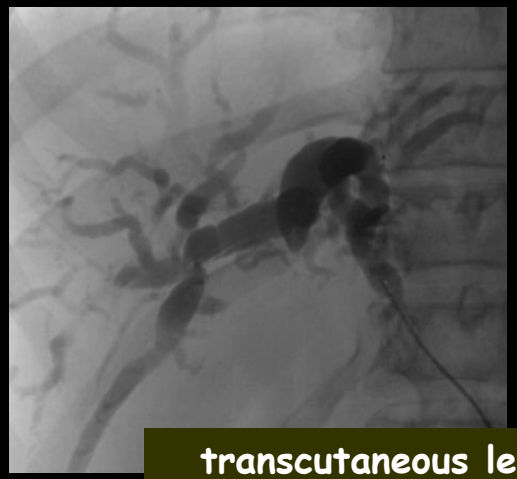
follow up ;2 months after right portal vein embolisation + external biliary drainage of the left hepatic lobe to maximise its hypertrophy



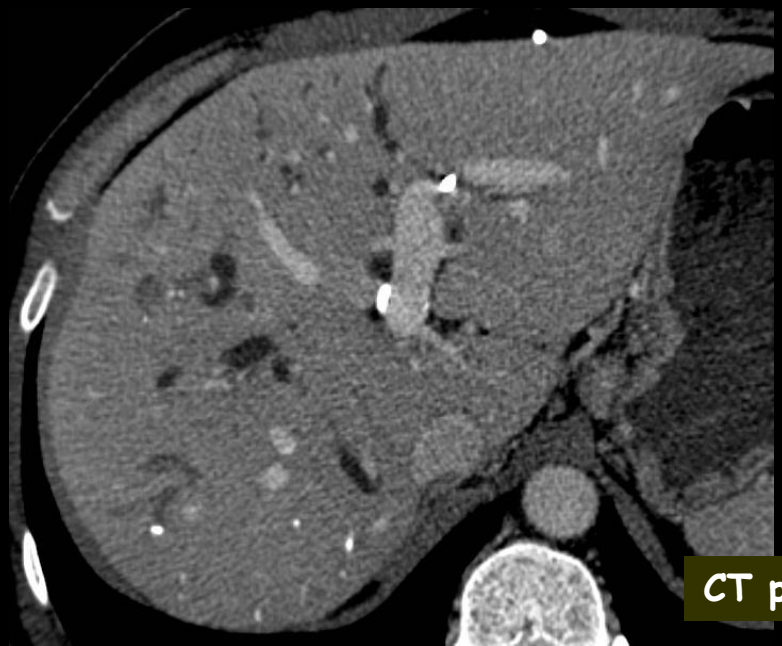
MDCT minIP

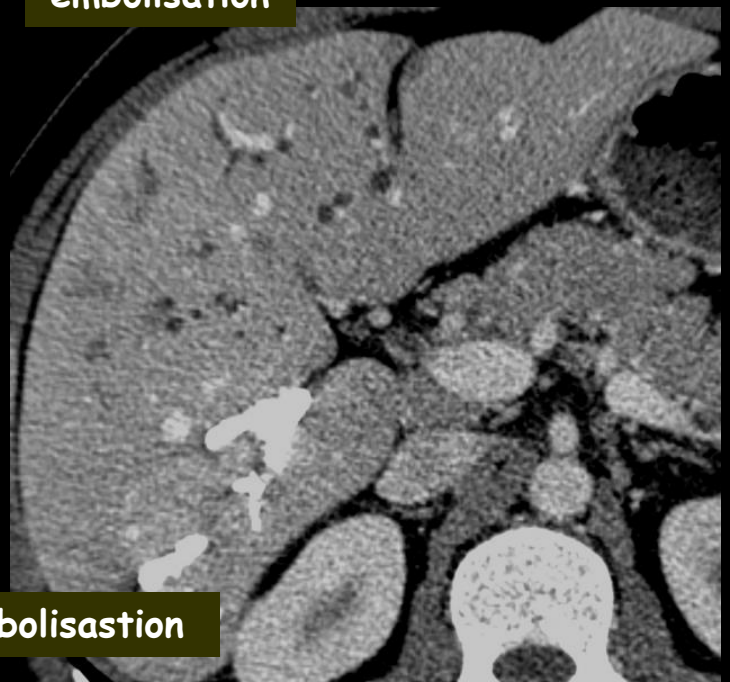


right lobe embolisation



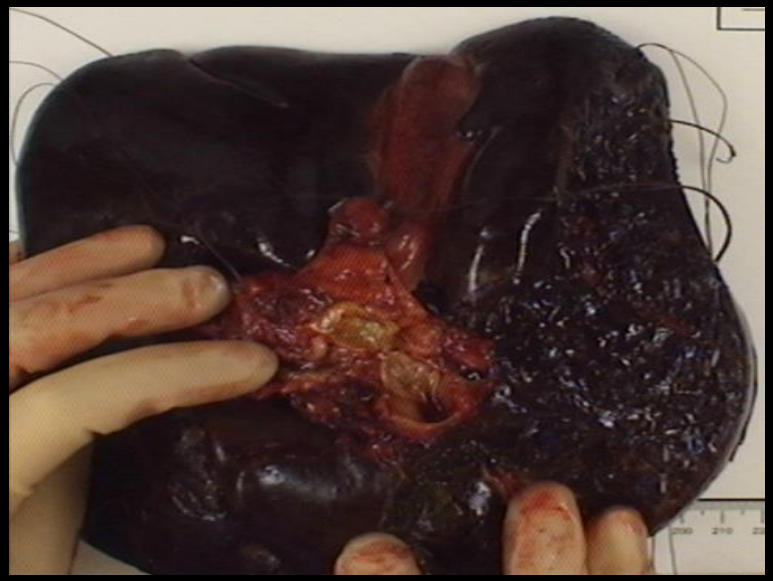
transcutaneous left lobe biliary drainage

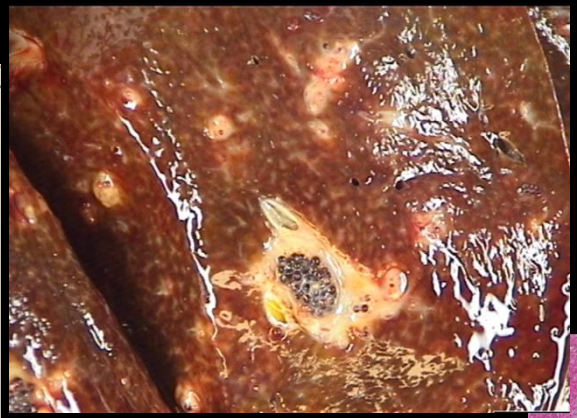




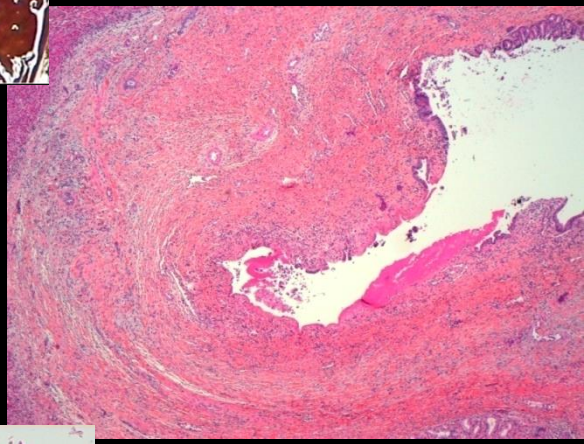
CT post embolisastion

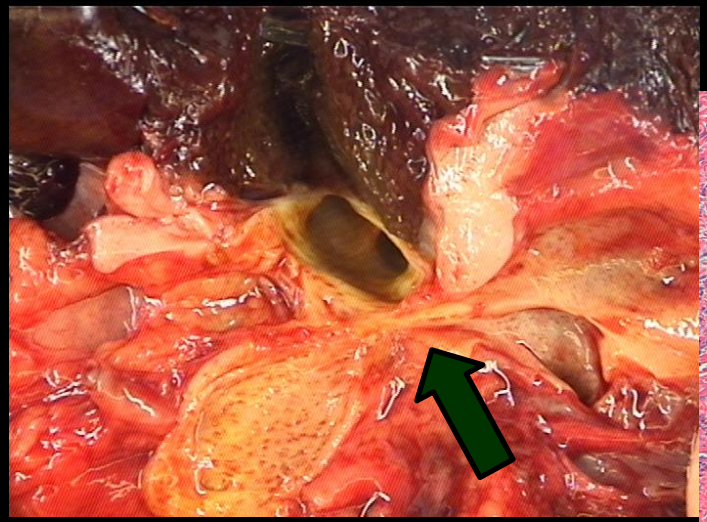
enlarged right hepatectomy

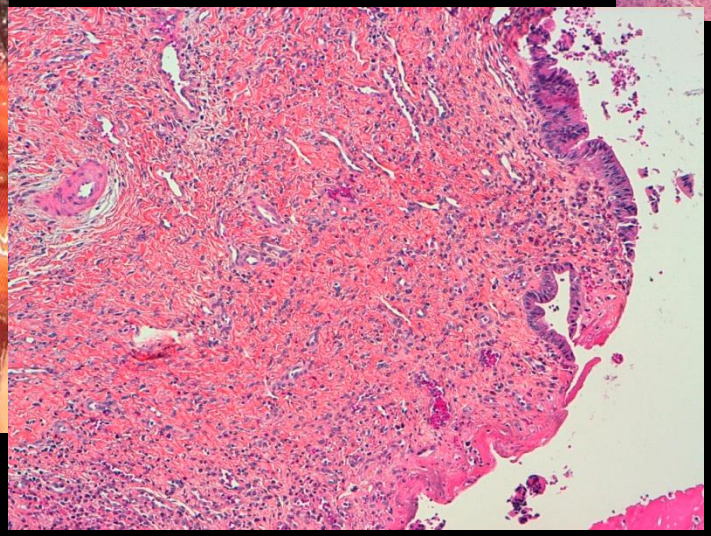




right portal vein thrombosis

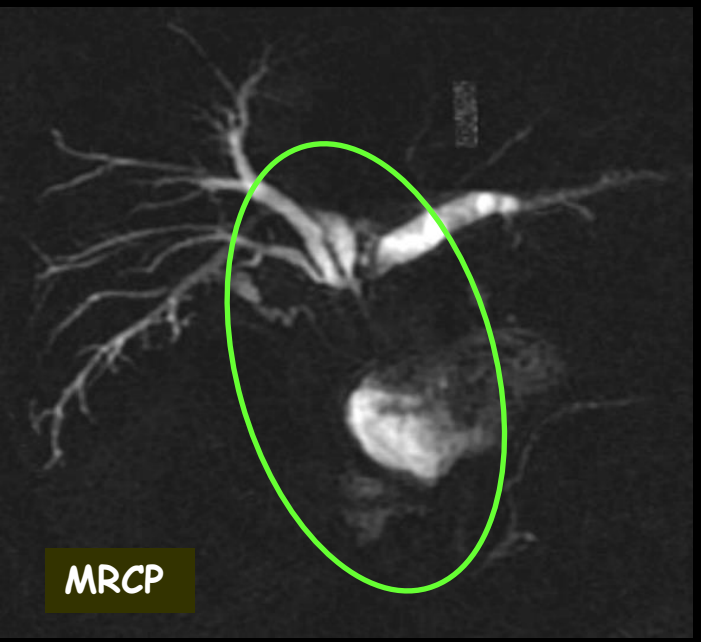


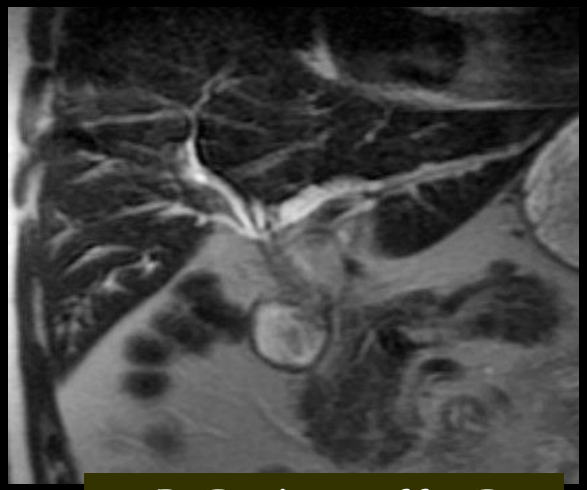


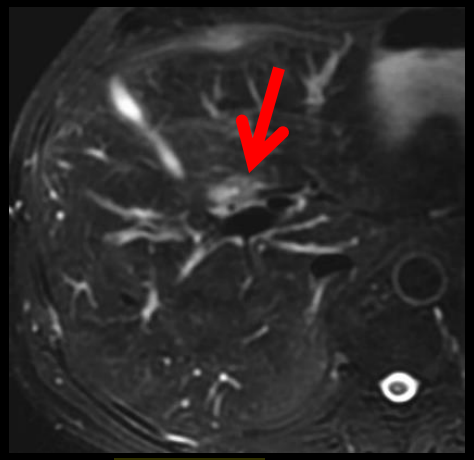


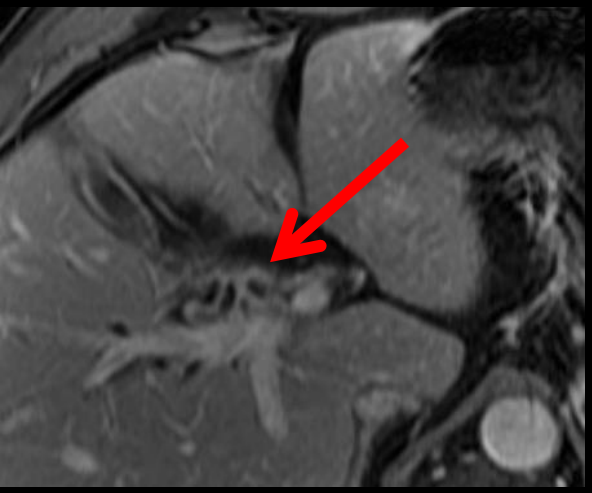
lymphoplasmocytic infiltration and short (>5mm) circonferential fibrosis of the proximal right biliary duct
;fibrous transformation of the adjacent portal vein

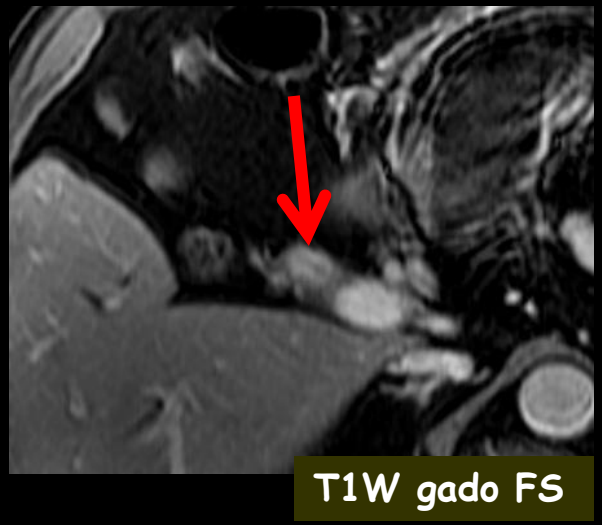
62 yo man , intense jaundice for 2 weeks , asthenia , severe biological cholestasis (bilirubin 252 mg/L)

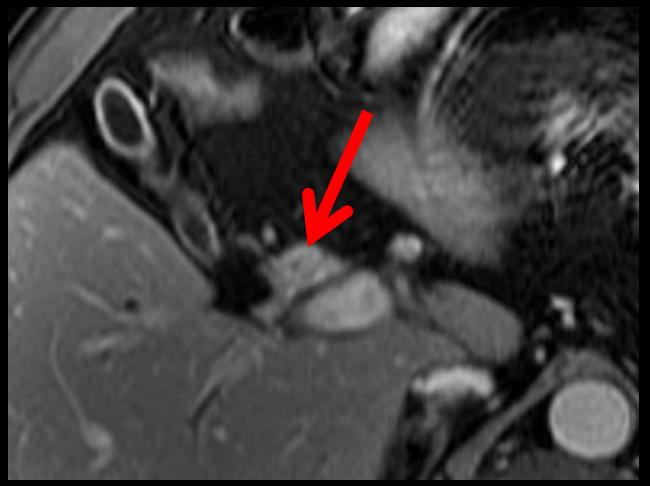




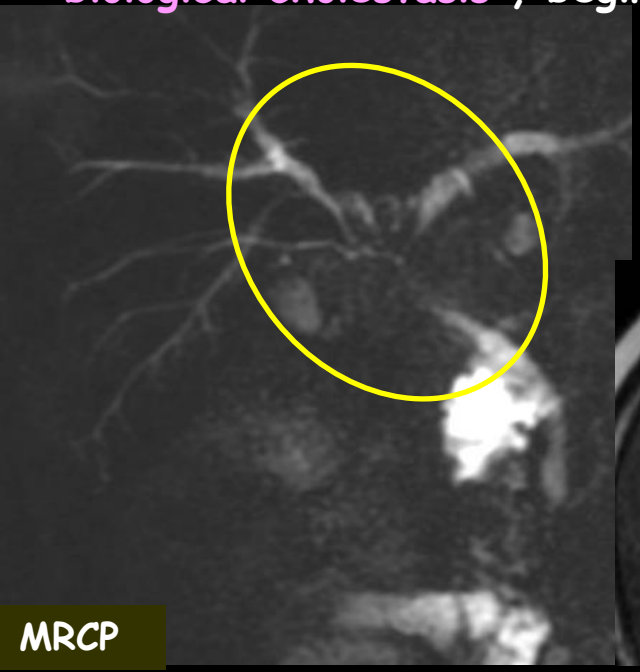




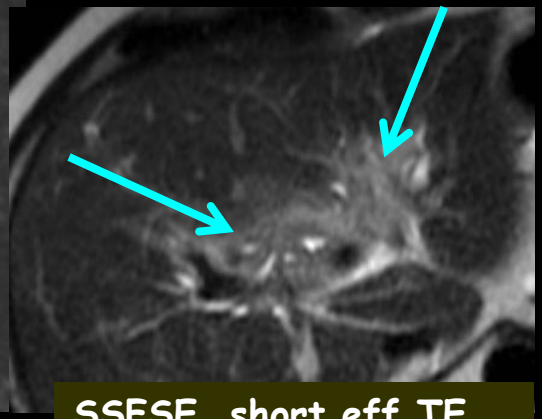




spontaneous slow regression of the icterus with progressive normalisation of the biological cholestasis , begining at the end of the first month .

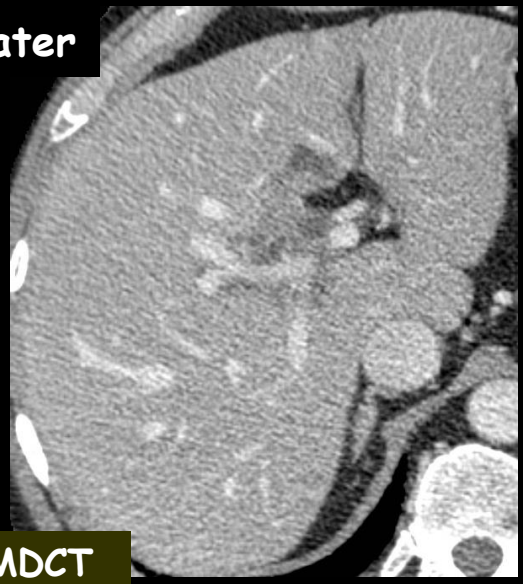


MRCP

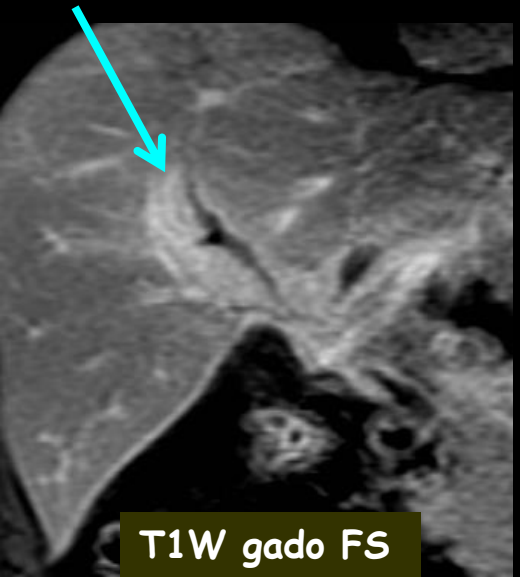


SSFSE short eff TE

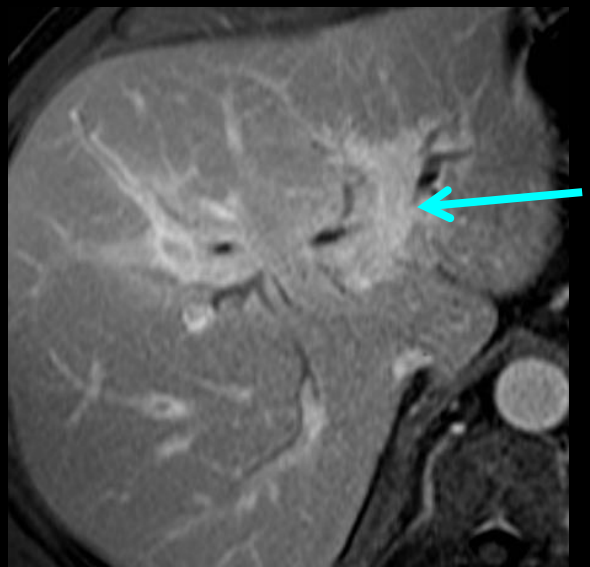
10 months later

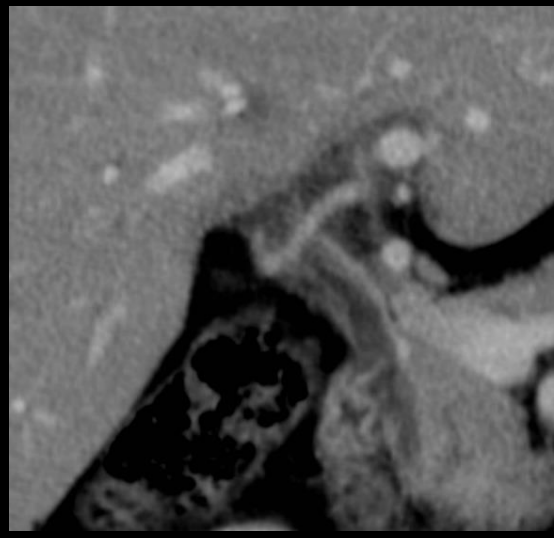


MDCT



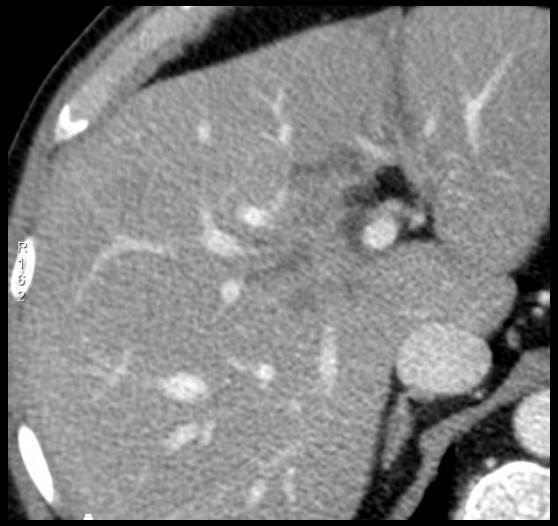
T1W gado FS



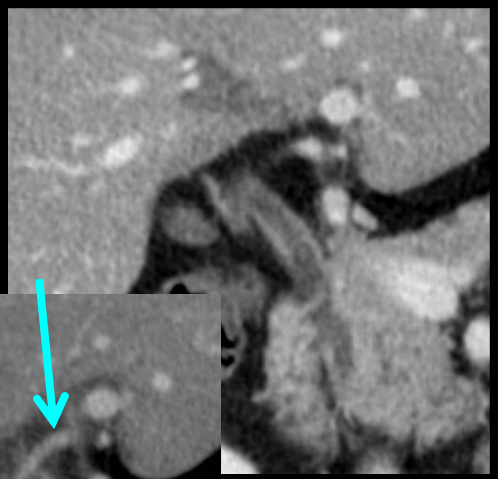


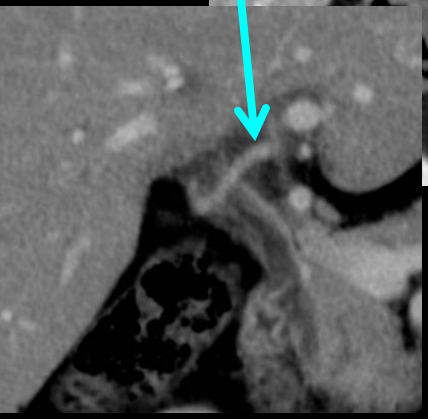
3 years after the beginning

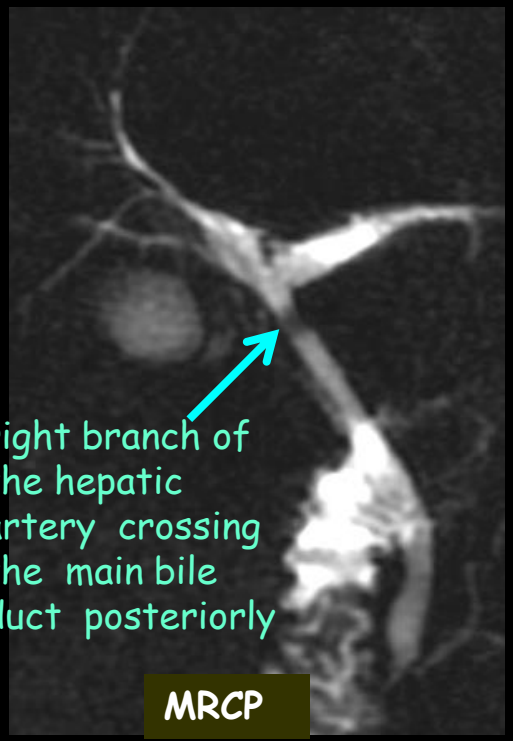
4 years



CT

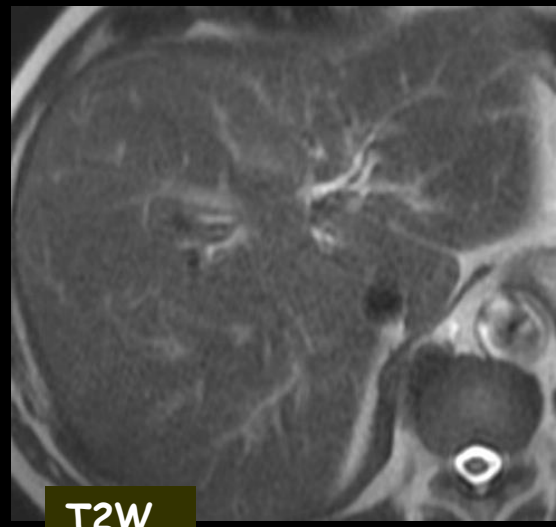




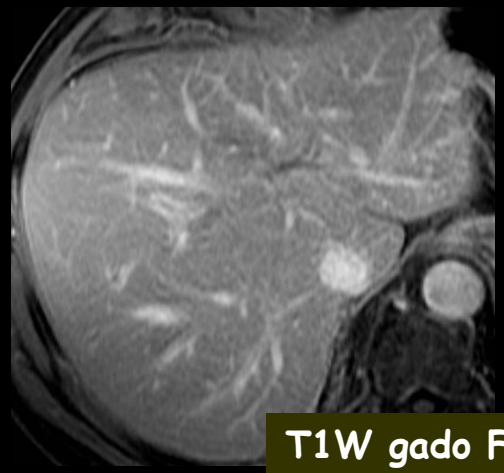


right branch of the hepatic artery crossing the main bile duct posteriorly

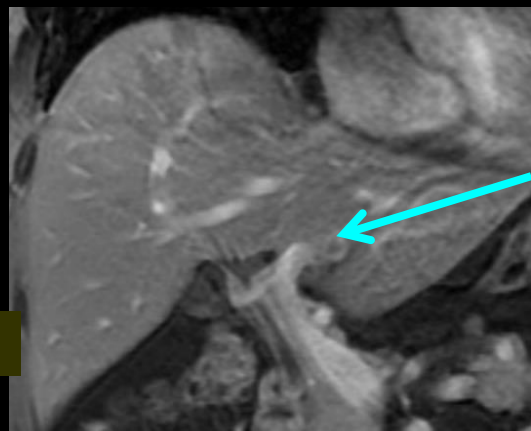
MRCP



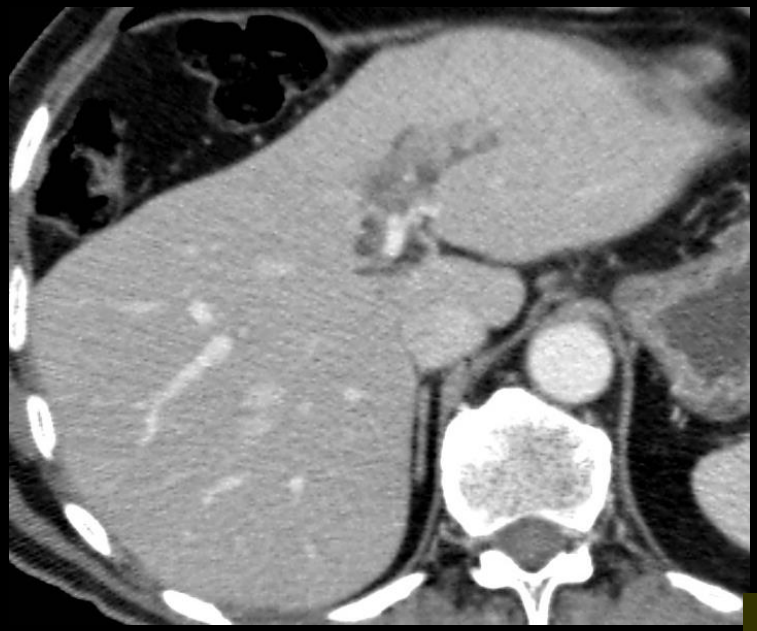
T2W

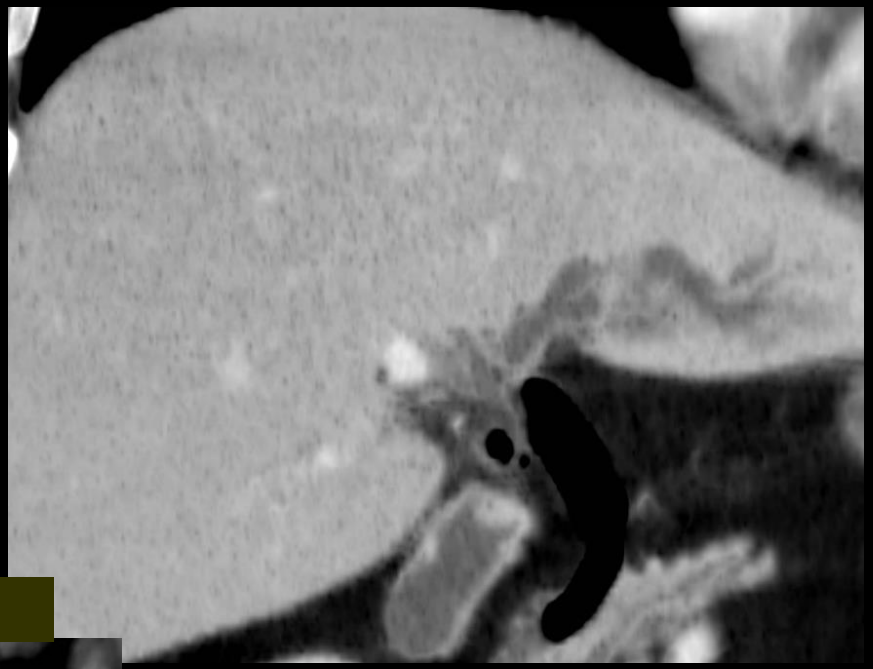


T1W gado FS

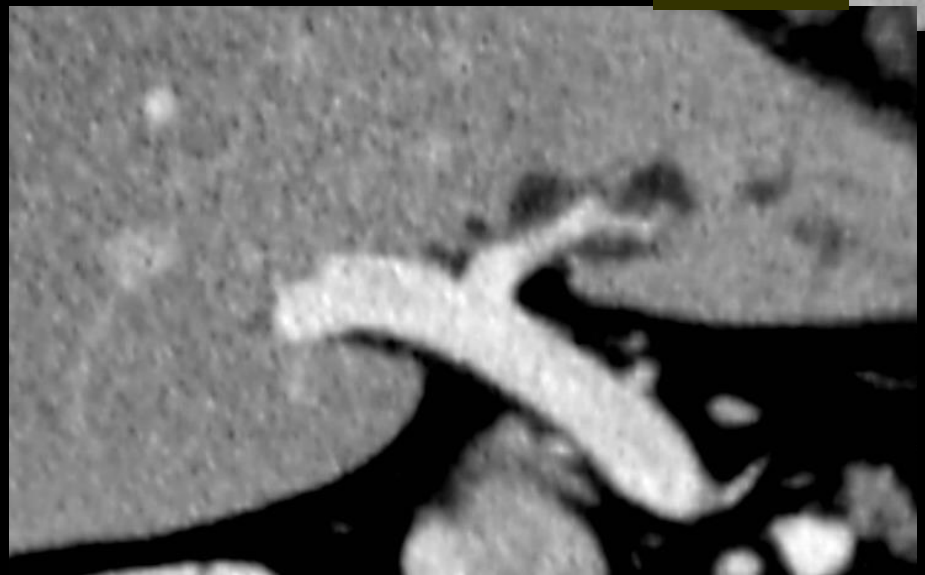


78 yo man ; left lobe biliary dilatation with intestinal subooclusion; mild elevation of bkirubinemia





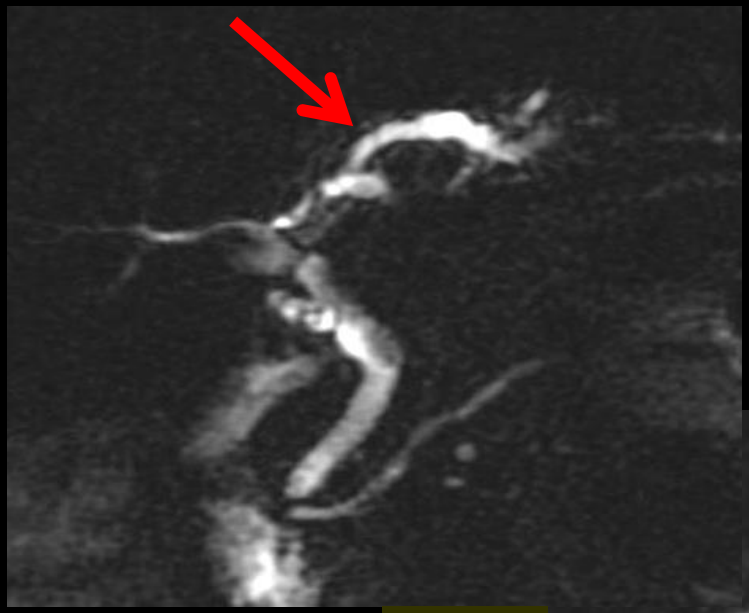
MDCT



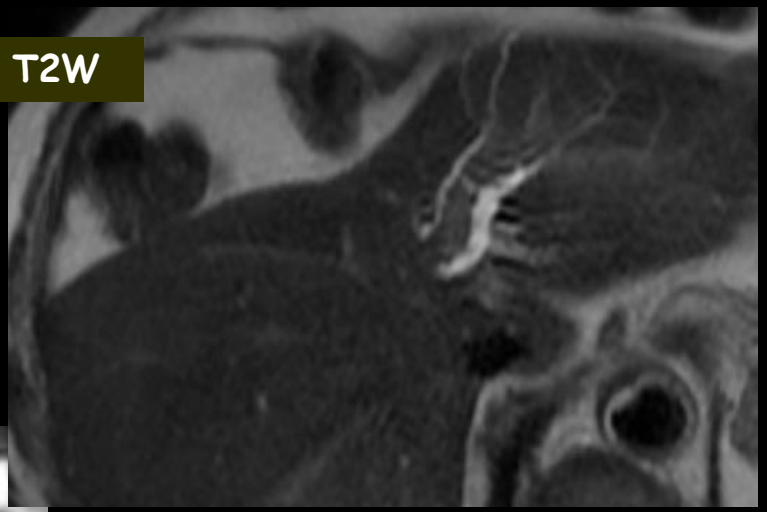
segmental dilatation of the left hepatic lobe biliary ducts

indication of MRI !

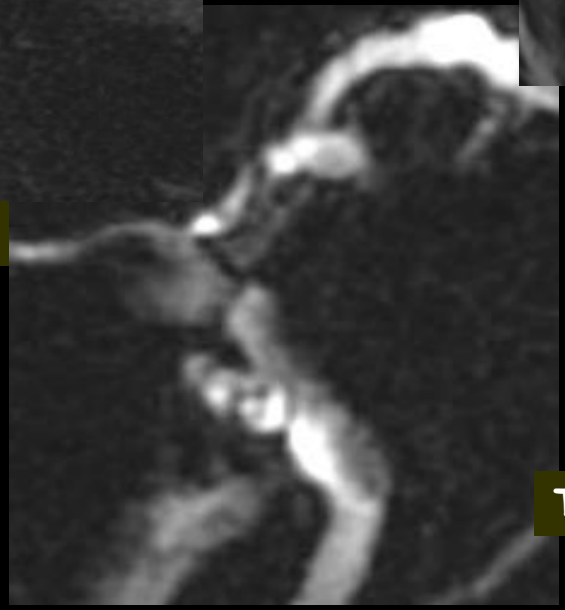
MRI confirm left lobe bile ducts dilatation and thrombosis of adjacent portal branches !



CPIRM



T2W



T1W gado FS

Left hepatic lobectomy , 4 months after the beginning of the symptomatology:
concentric stenosing fibrosis of large as of small bile ducts
inflammatoy lympho plasmocytic infiltration
thrombosis of left lobe portal veins ,partially repermeabilised

Sclerosing cholangitis ; associated diseses

Idiopathic	Secondary etiology
Inflammatory bowel disease Crohn's disease Ulcerative colitis	Cholelithiasis/Choledocholithiasis
Idiopathic fibrosis Retroperitoneal fibrosis Mediastinal fibrosis Peyronie's disease Idiopathic lobular panniculitis Reidel's thyroiditis	Infection Bacterial cholangitis Recurrent pyogenic cholangitis
Pseudotumour of the orbit	Immunodeficiency-related Congenital immunodeficiency Acquired immunodeficiency Combined immunodeficiency Angioimmunoblastic lymphadenopathy
Autoimmune & connective tissue disorders Systemic lupus erythematosus Rheumatoid arthritis Systemic sclerosis Sjögren's syndrome Celiac disease Type 1 diabetes mellitus Autoimmune hemolytic anemia Immune thrombocytopenic purpura Lupus nephritis	Congenital Caroli's disease Cystic fibrosis
Membranous nephropathy Rapidly progressive Glomerulonephritis Chronic sclerosing sialadenitis Primary biliary cirrhosis	Pancreatic disorder Autoimmune pancreatitis Chronic pancreatitis
Alloimmune disorders Hepatic allograft rejection Graft-versus-host disease	Toxic Intraductal formaldehyde or hypertonic saline Intra-arterial chemotherapy
Infiltrative disorders Amyloidosis Sarcoidosis Systemic mastocytosis Hypereosinophilic syndrome Hodgkin's disease Cholangitis glandularis proliferans	Ischemic Vascular trauma Hepatic allograft arterial occlusion Paroxysmal nocturnal hemoglobinuria Posttraumatic sclerosing cholangitis
	Others Hepatic inflammatory pseudotumor Neoplastic/Metastatic disease Eosinophilic cholangitis Portal biliopathy Langerhans cell histiocytosis

11. Abdalian R, Heathcote EJ. Sclerosing cholangitis: a focus on secondary causes. *Hepatology* 2006;44:1063-74

Sclerosing cholangitis may mimic hilar or main bile duct cholangiocarcinoma

It is always difficult to get precise histologic data with biopsies or endoluminal biliary brushing and surgical resection is often decided mainly on MDCT and MR images .

Of course precise knowledge of clinico-biological evolution is fundamental to avoid unnecessary mutilating surgery

and we have to be very carefull in radiology reports and to take in account clinical , biological atypies in multidisciplinary concertations.

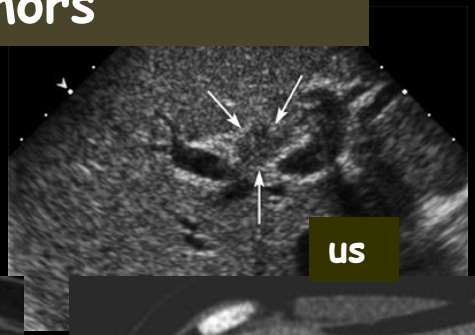
In atypical cases , one can decide

- -to complete biological data ; IgG4,auto antibodies , CA 19-9 …etc
- -a supplementary follow-up of one to three months
- -a trial of corticotherapy (?)
- -repeated endobiliary brushings or better : endoluminal biliary duct biopsy by transhepatic US guided approach

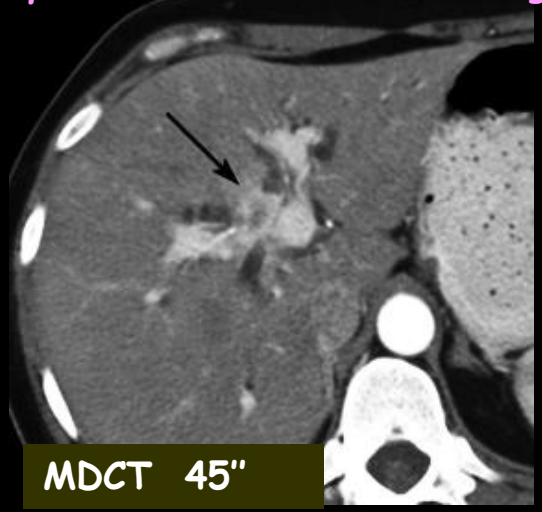
1b. hepato biliary inflammatory pseudotumors

48 yo woman , jaundice ,cholestasis

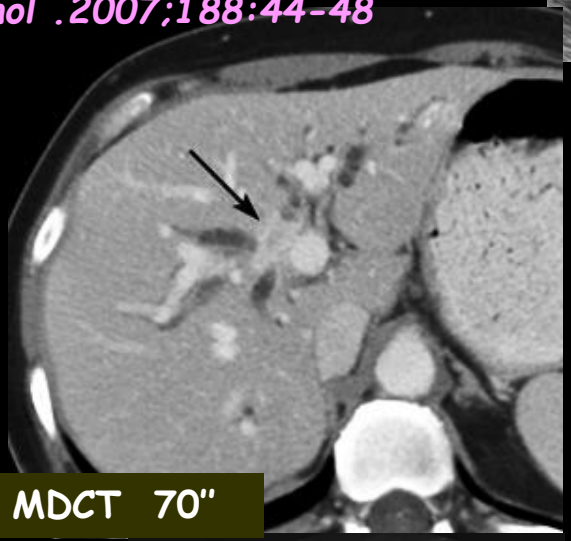
Tublin ME,Moser J, Marsh JW,Gamblin TC .Biliary inflammatory pseudotumor.imaging features in seven patients . AJR Am J Roentgenol .2007;188:44-48



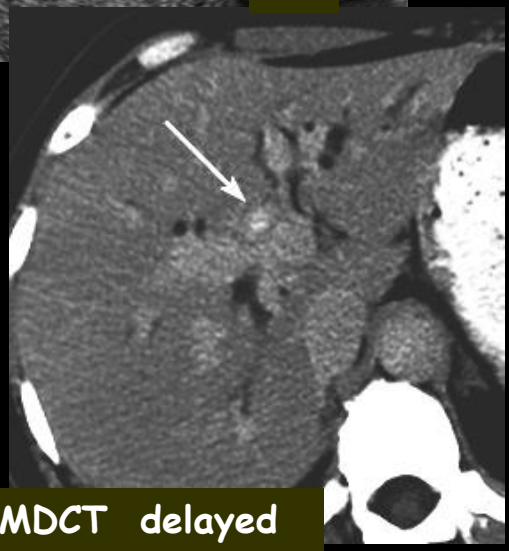
us



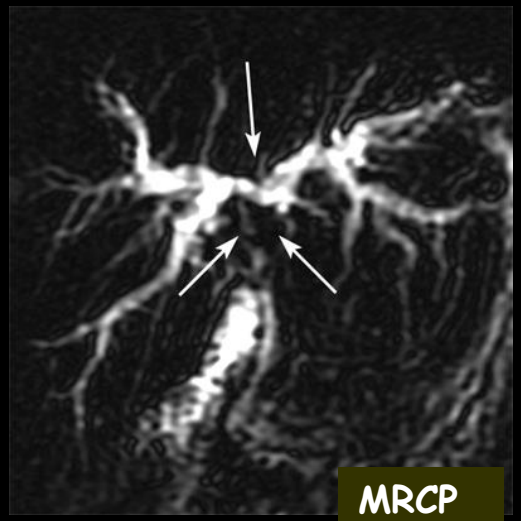
MDCT 45''



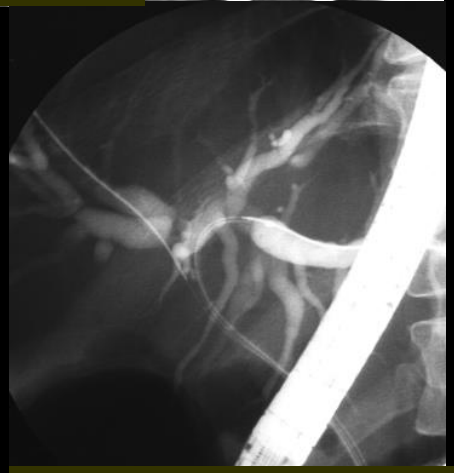
MDCT 70''



MDCT delayed



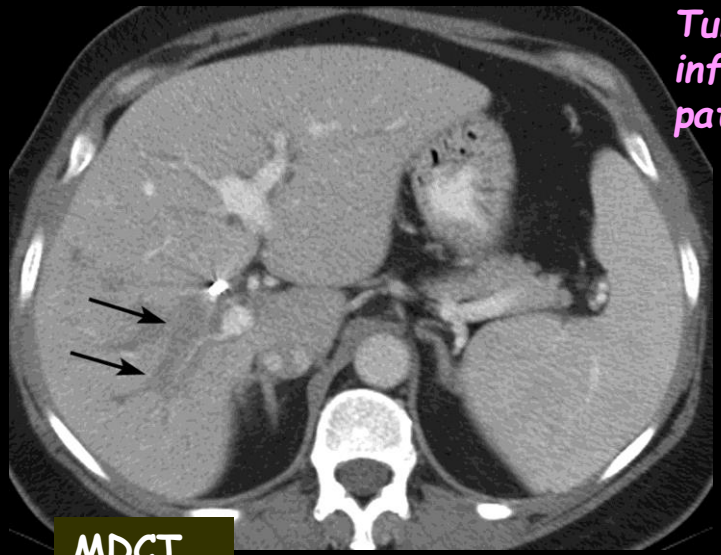
MRCP



interventionnal ERCP

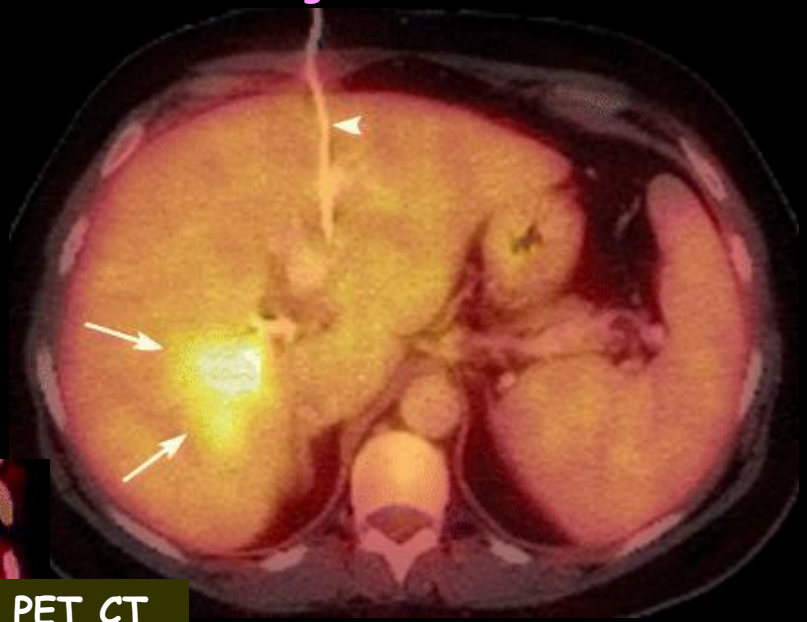
guided biopsies of the juxta hilar mass confirm the diagnosis of inflammatory pseudotumor

42 yo woman ,mild biological cholestasis without clinical icterus , probabilistic diagnosis of Klatskin's tumor

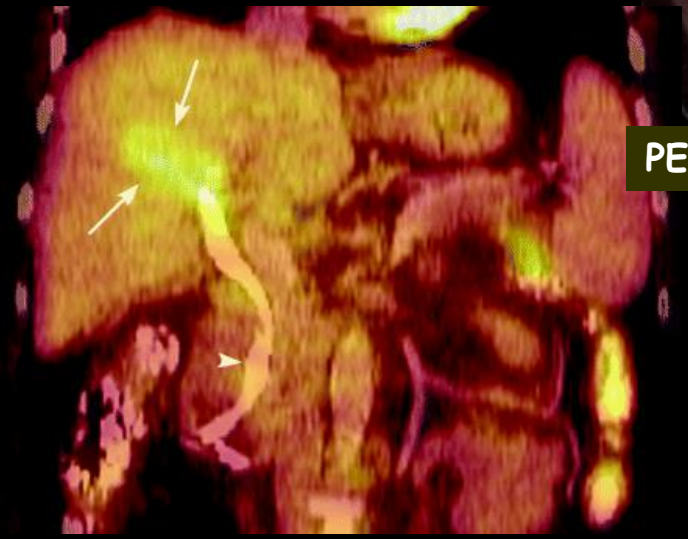


MDCT

Tublin ME,Moser J, Marsh JW,Gamblin TC .Biliary inflammatory pseudotumor.imaging features in seven patients . AJR Am J Roentgenol .2007;188:44-48

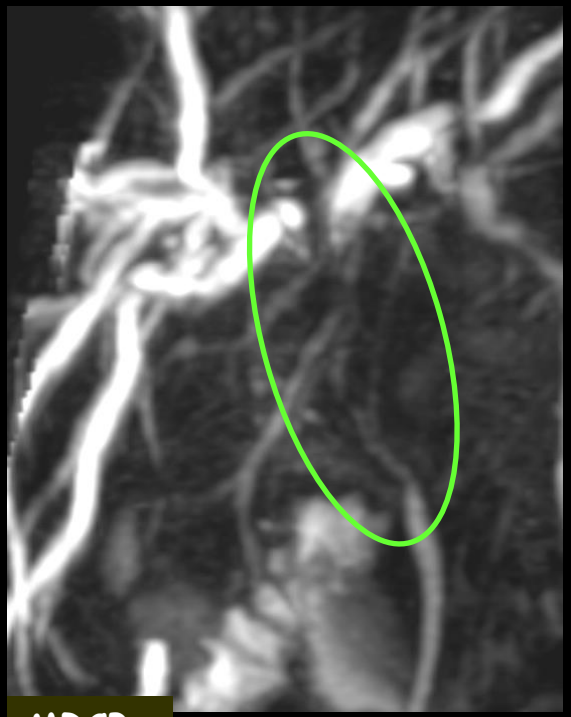


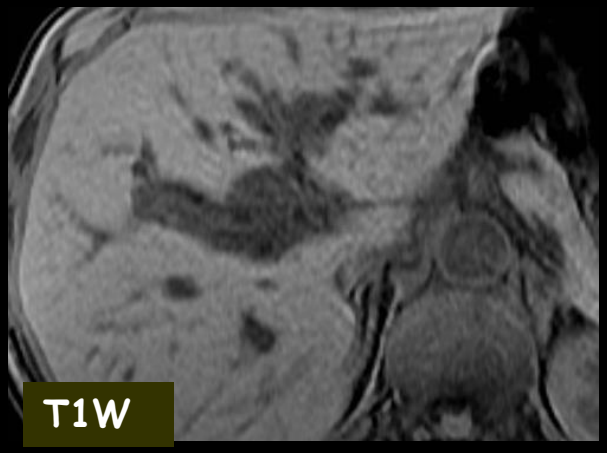
PET CT

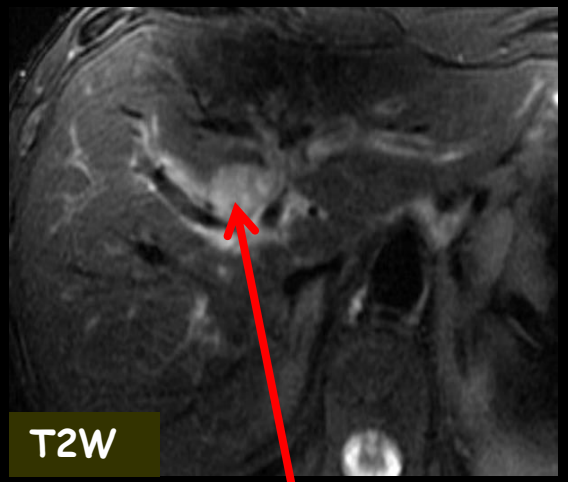


right hepatectomy (after neo-adjuvant chimiotherapy ! !) confirms the histological diagnosis of biliary inflammatory pseudotumor

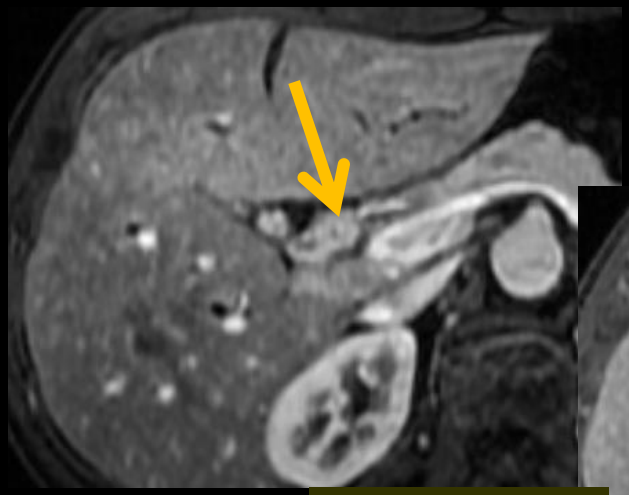
48 yo woman, right upper quadrant pain with mild fever , moderate cholestasis (bilirubin 53 mg/L) , elevated AST and ALT (15/20*N) CRP 20 mg/L.

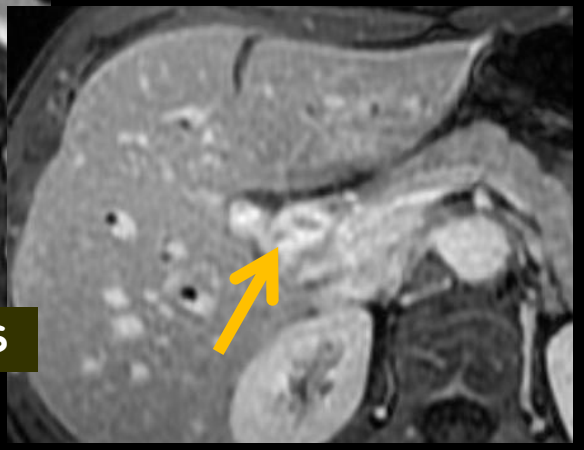


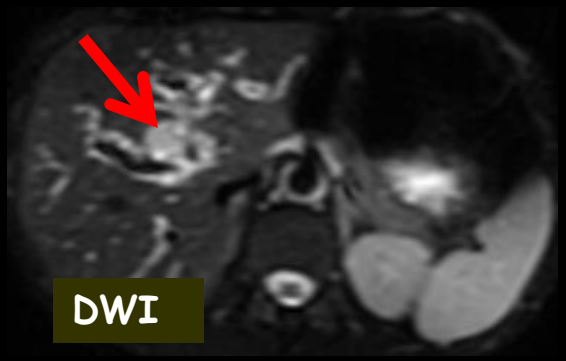




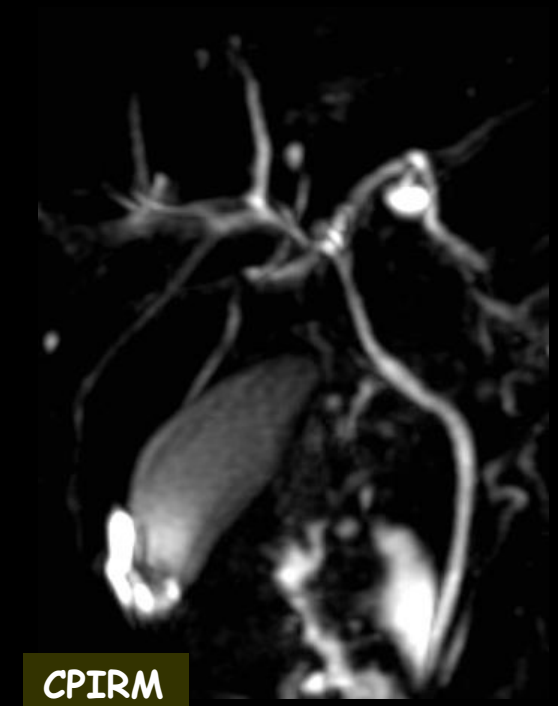
hilar mass-forming lesion with upstream biliary duct dilatation

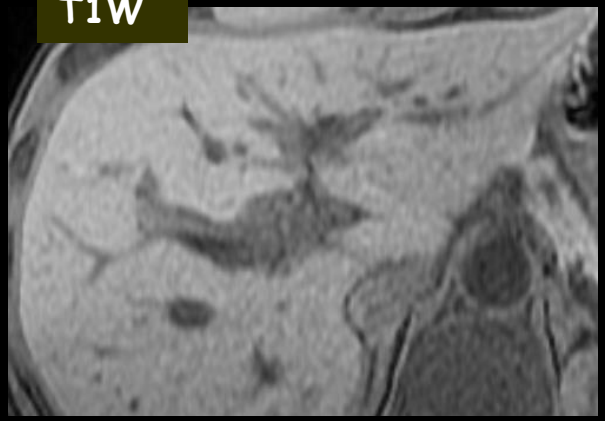


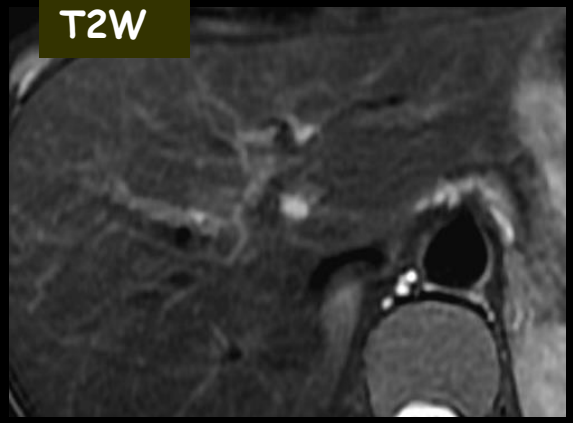


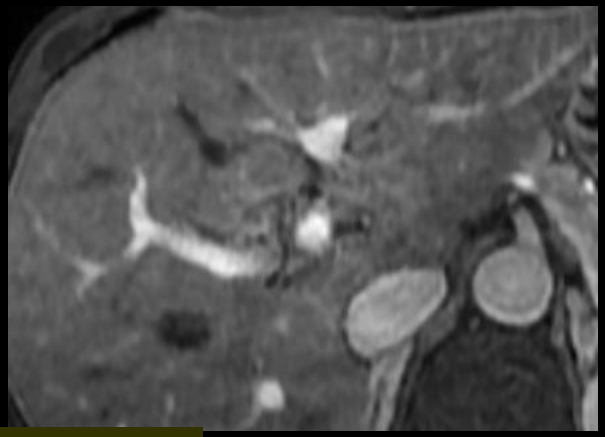


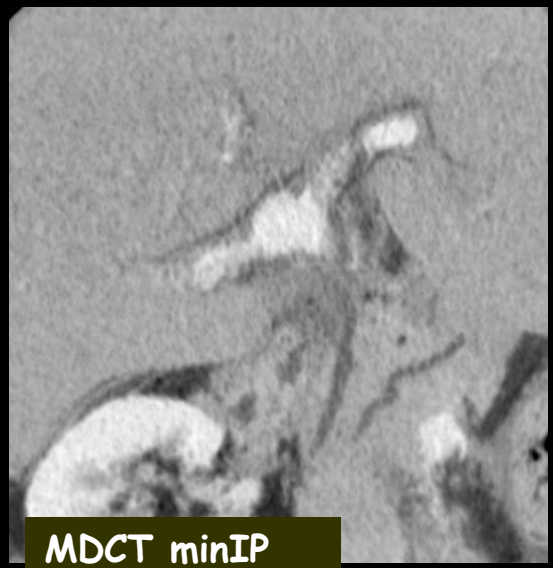
one month later, the whole anomalies spontaneously disappeared, clinico-biologic as radiologic ones

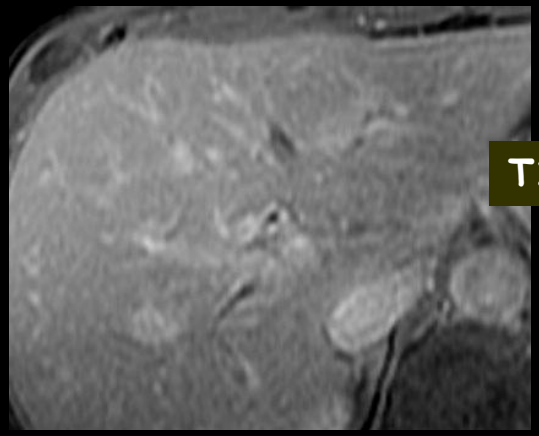

CPIRM


T1W


T2W


T1W gado FS


MDCT minIP

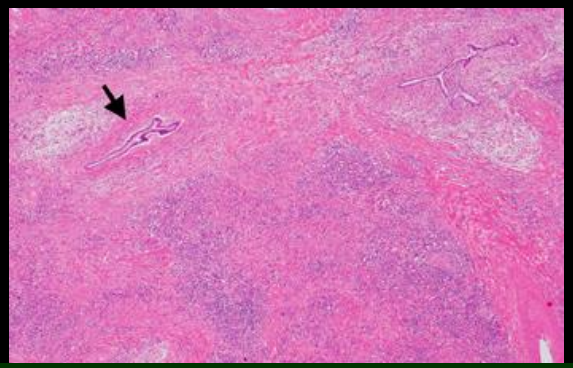


Hepatobiliary inflammatory pseudotumor is the main differential diagnosis of mass-forming hilar (Klatskin's) tumor

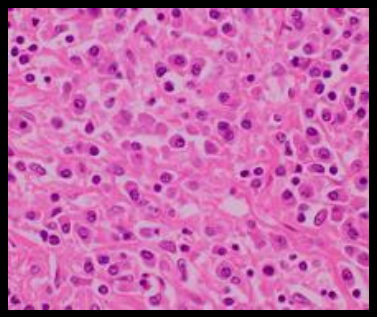
Inflammatory pseudotumors are histologically characterized by a proliferation of fibroblasts or myofibroblasts and inflammatory cell infiltration (mainly polyclonal lymphocytes and plasma cells)

Two types are described: fibrohistiocytic predominantly peripheral and lymphoplasmocytic , central (juxta hilar) and mass forming (with IgG4 elevation)

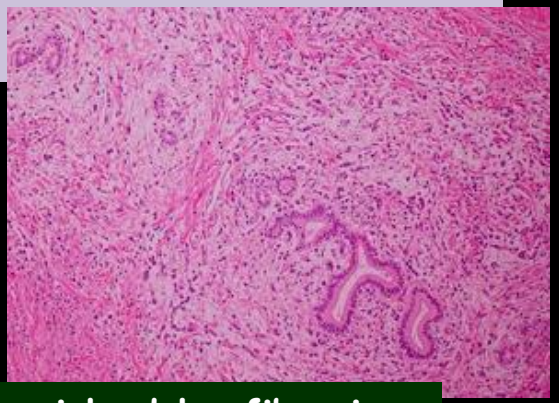
Delayed enhancement in contrasted MDCT and MRI is a strong argument for the diagnosis ; unfortunately it is also seen in cholangiocarcinoma



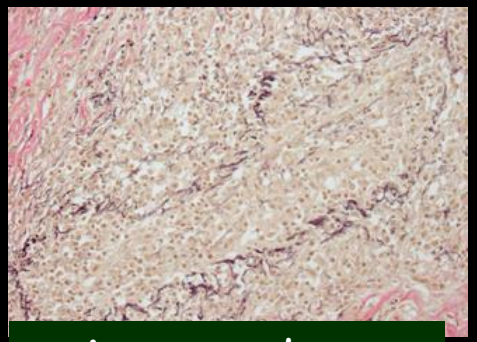
lymphoplasmocytic infiltration



oedematous "immature" fibrosis .



periglandular fibrosis

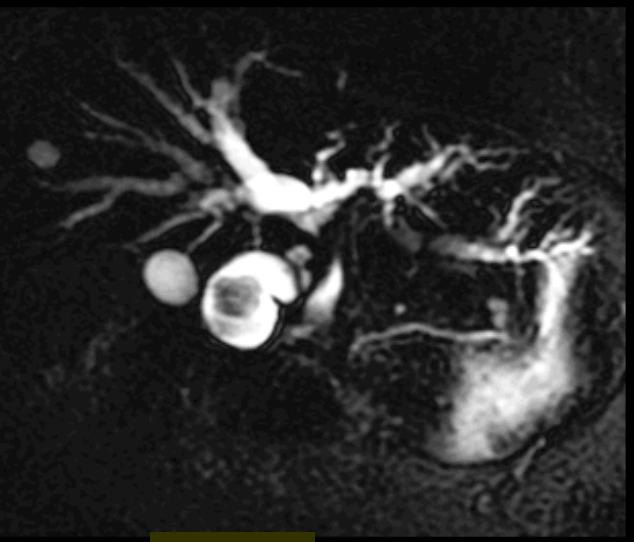


perivenous and centroluminal fibrosis

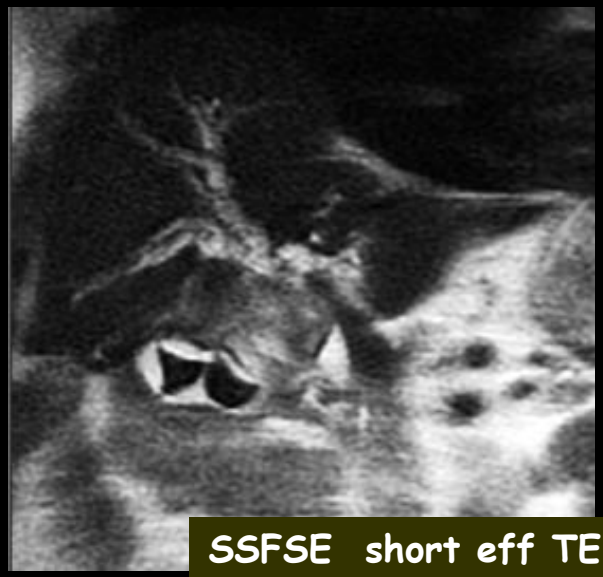
Zen Y et coll. Pathological classification of hepatic inflammatory pseudotumor with respect to IIgG4-related diseases Modern pathology 2007,20:884-894

1c. differential diagnosis of main bile duct "tumor-like" lesions

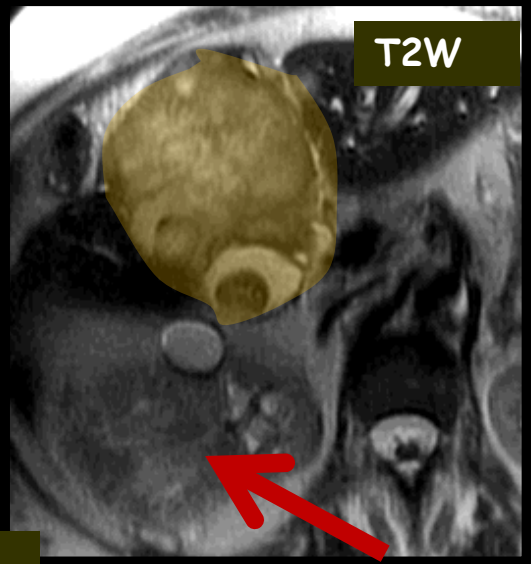
73 yo woman , inreasing jaoundice , palpable mass of the right upper quadrant

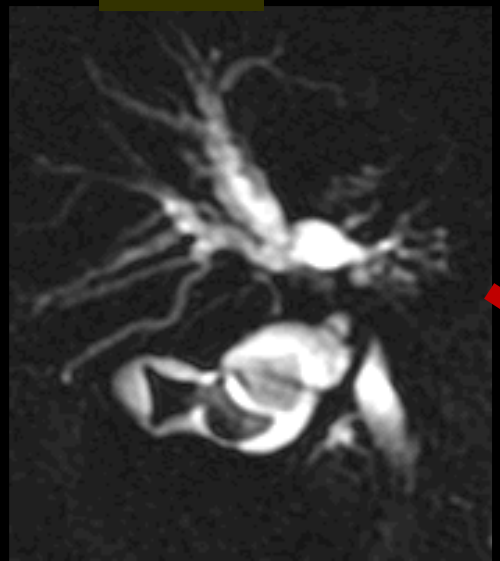


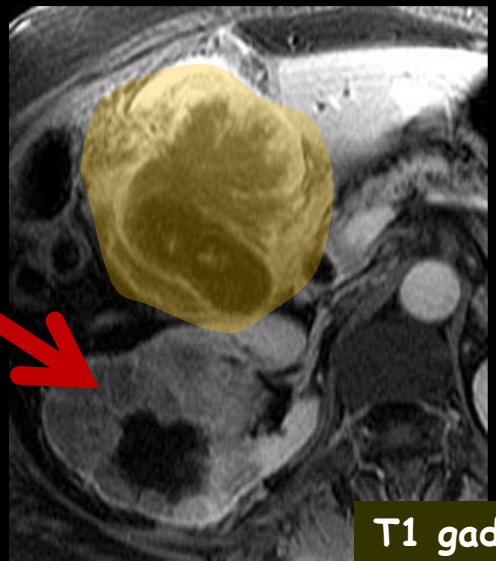
MRCP



SSFSE short eff TE





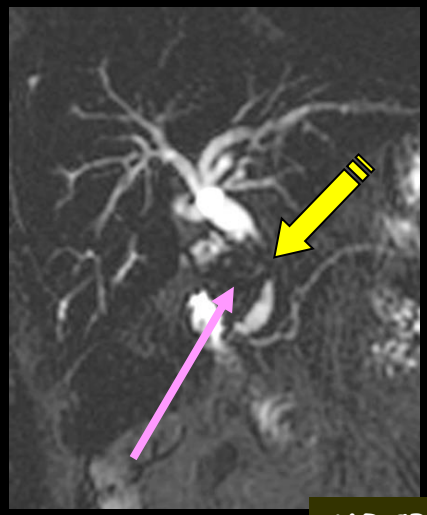


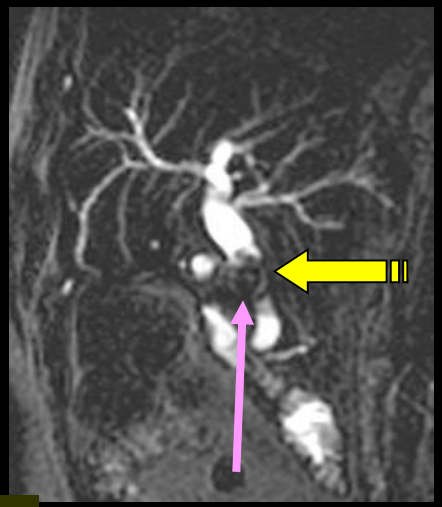
T1 gado

calculo-cancer of the gallbladder with infrahilar pedicular extension

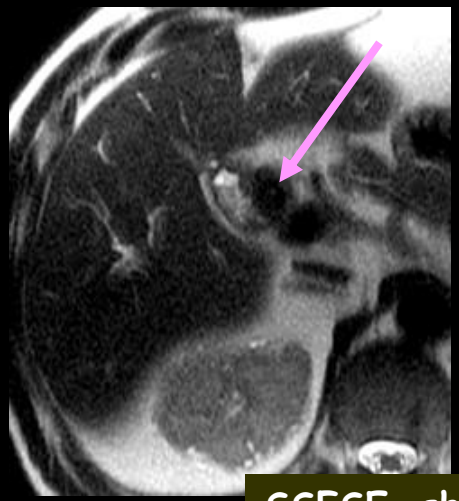
Grawitz tumor of the right kidney

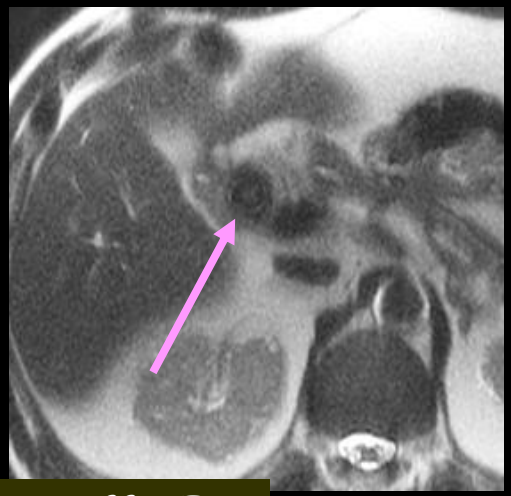
73 yo woman , biliary pain and biological cholestasis ;cholecystectomy 3 years, no weight loss.



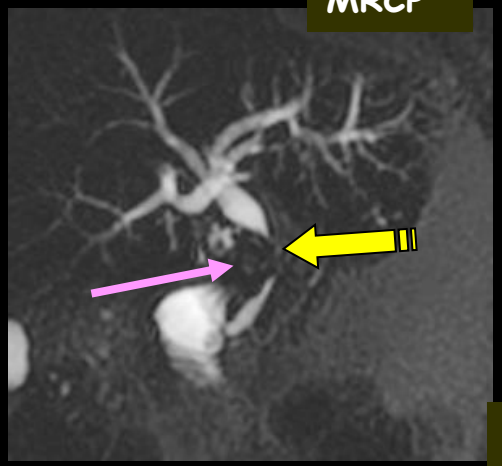


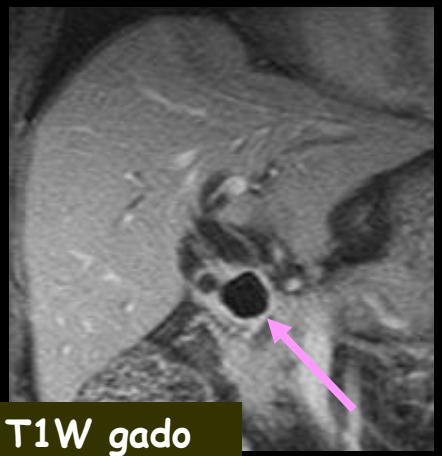
MRCP



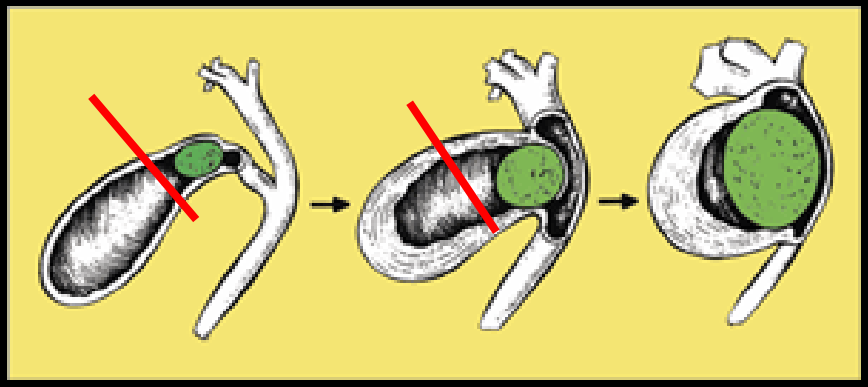


SSFSE short eff TE



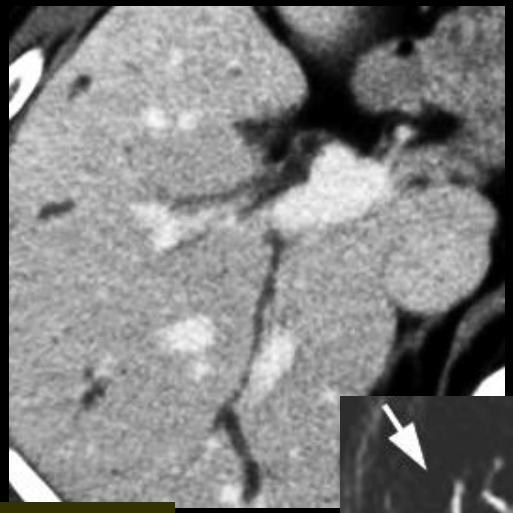


T1W gado

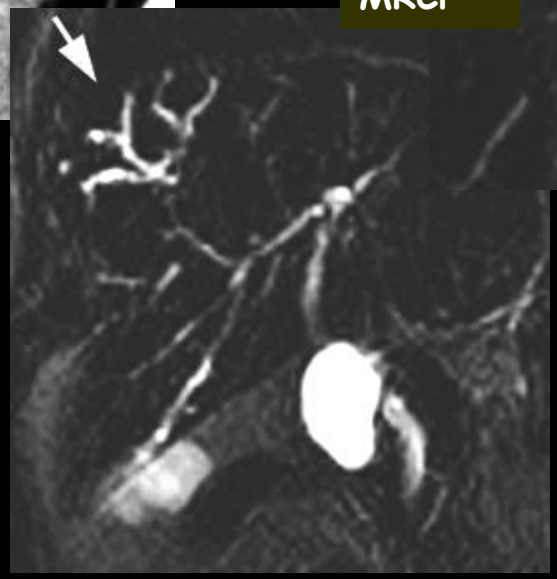


Mirizzi's syndrome (pedicular infrahilar compression due to cystic stone) can be seen even after cholecystectomy , in a long cystic duct remnant !!!

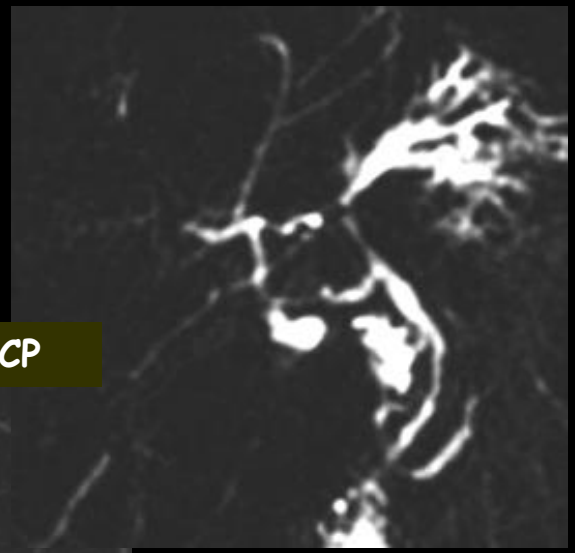
54 yo man , chronic diarrhea, weight loss, cholestasis

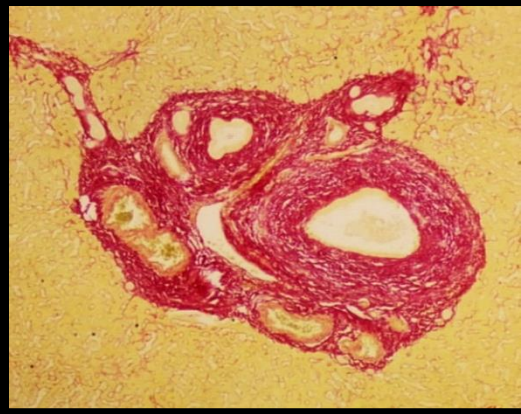


MDCT



MRCP

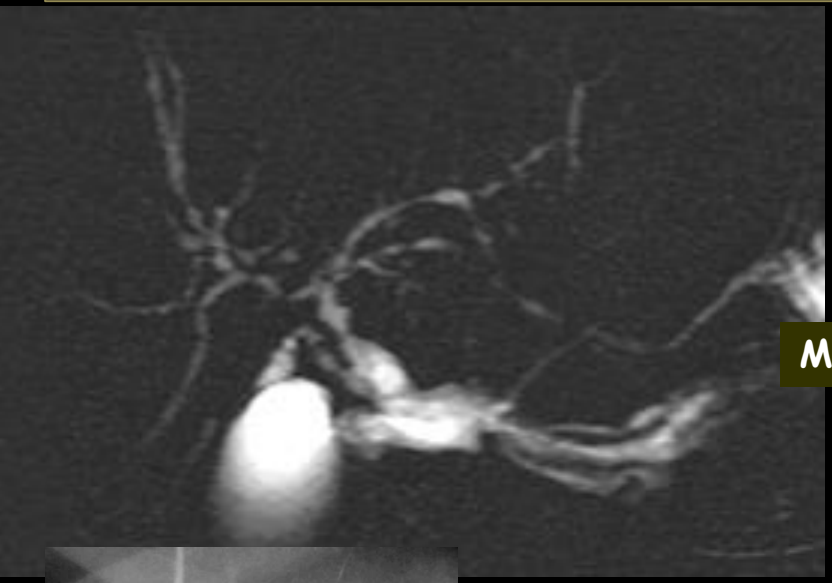


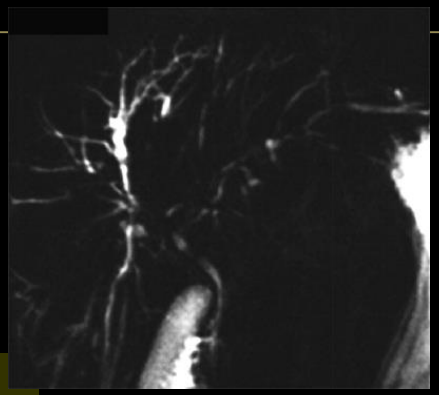


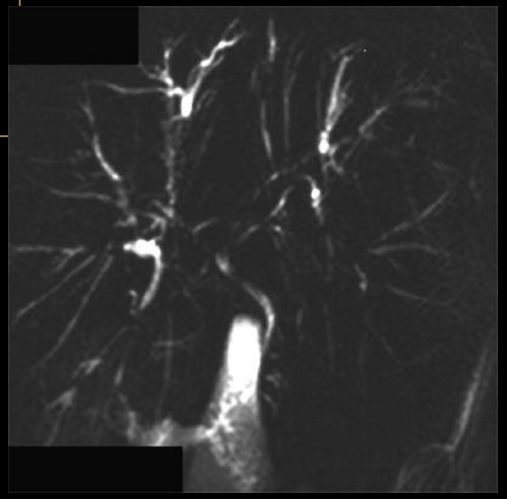
primary sclerosing cholangitis

How can we recognize a primary sclerosing cholangitis ?

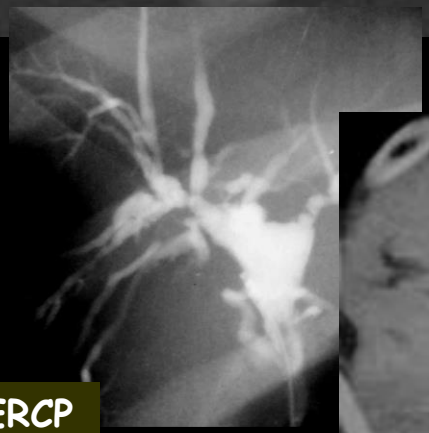
Vuillierme MP et coll. Cholangites JFR 2007. Paris SFR ed 2007.



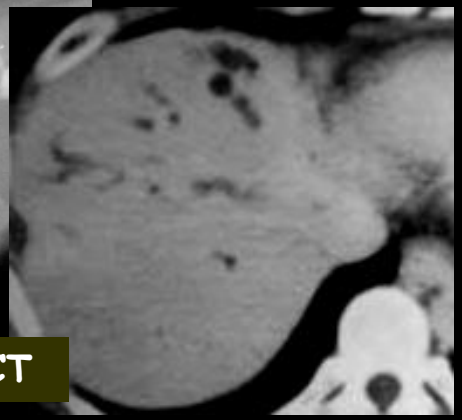




MRCP



ERCP



CT

short stenosis with upstream dilatations ,predominantly peripheral ; beading.

obliterating fibrous cholangitis involve large intrahepatic bile ducts (≠primary biliary cirrhosis)

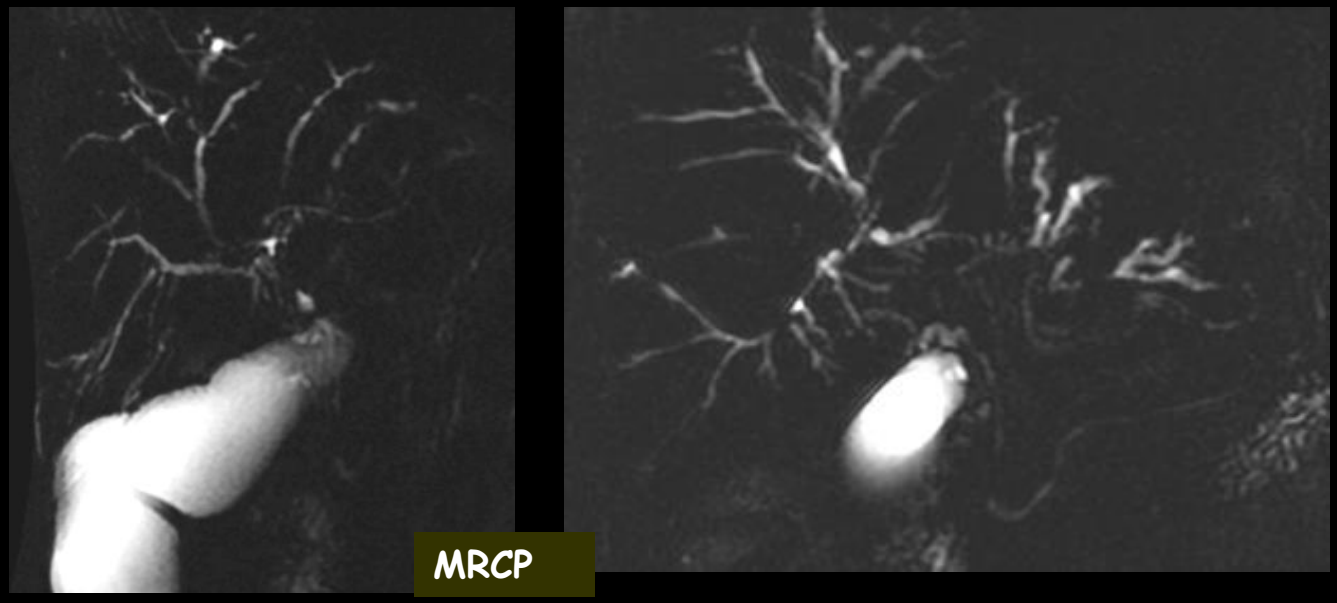
young men S/R 2/1,averag age of diagnosis : 40 yo

frequently (75%) associated to IBD (specially mild or infraclinic ulcerative pancolitis)

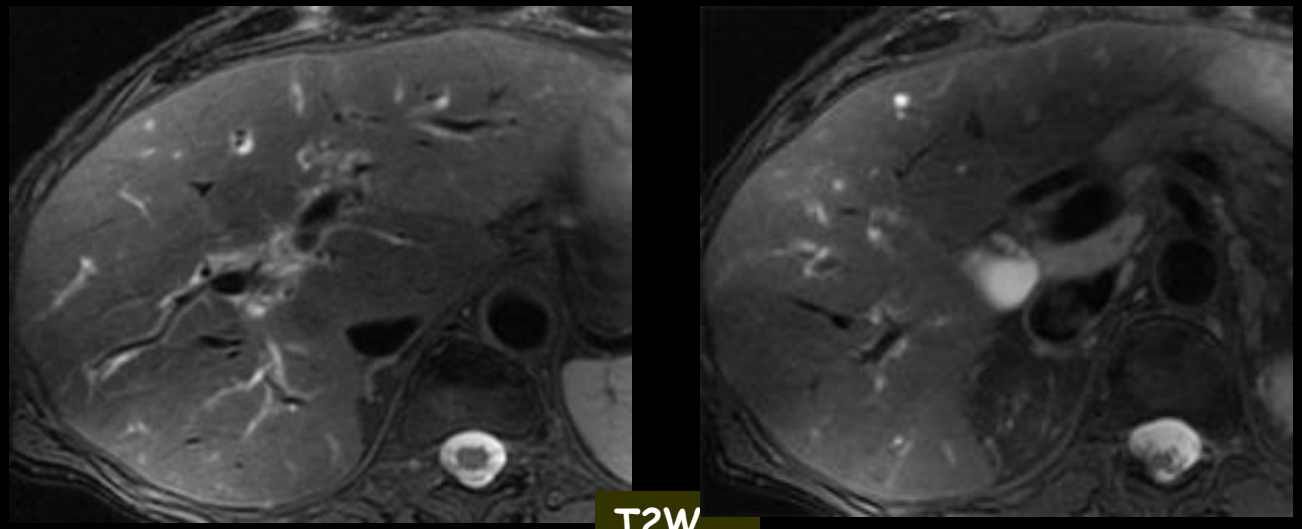
IgG4 are elevated in only 9% of the cases

annual incidence of cholangocarcinoma : 1.5% (elevation of CA 19.9)

72 yo man, follow up of primary sclerosing cholangitis

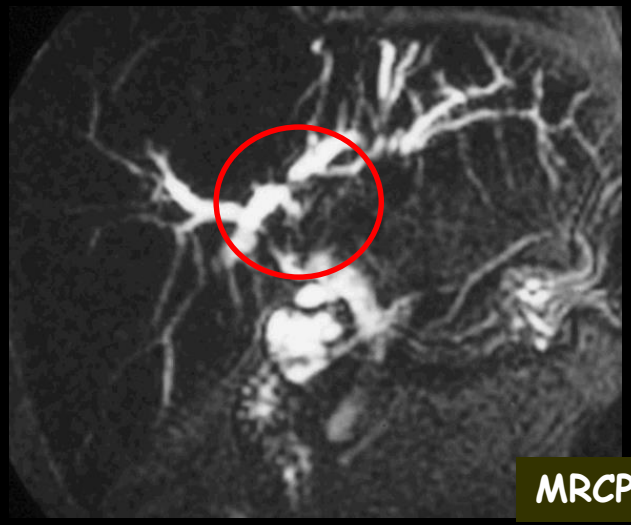


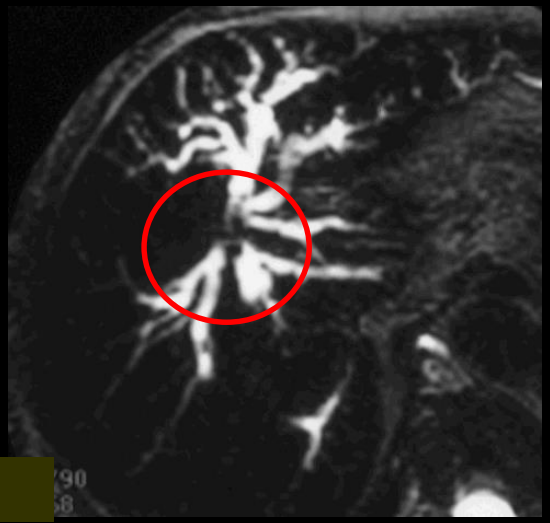
MRCP



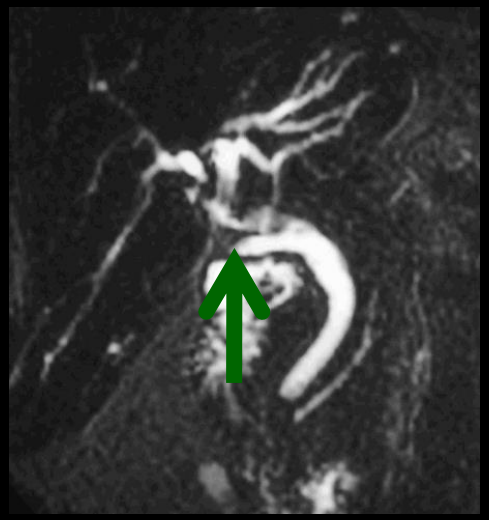
T2W

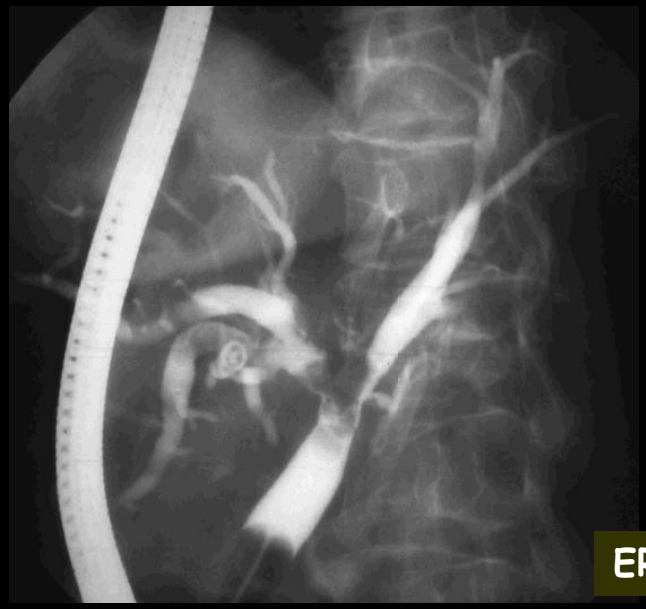
69 yo woman ; cholecystectomy 12 years ago ; biliary pain , fever, cholestasis

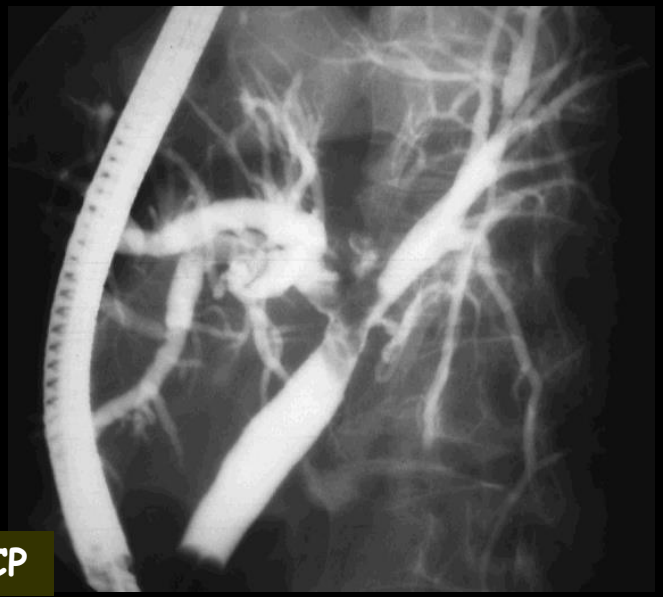




MRCP



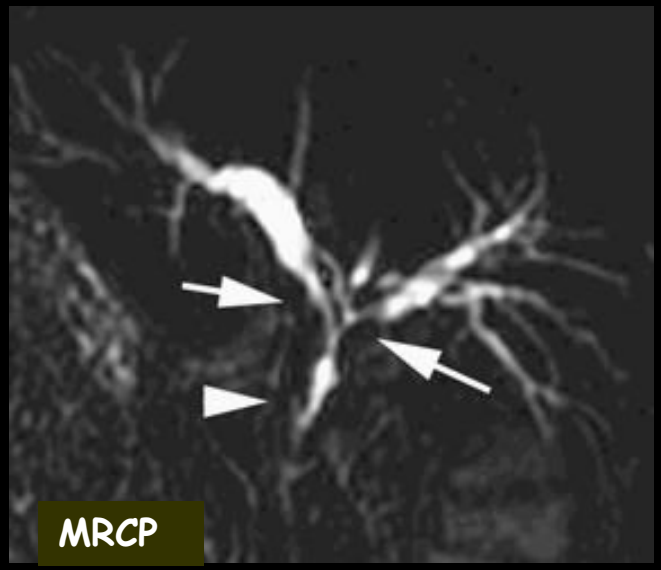


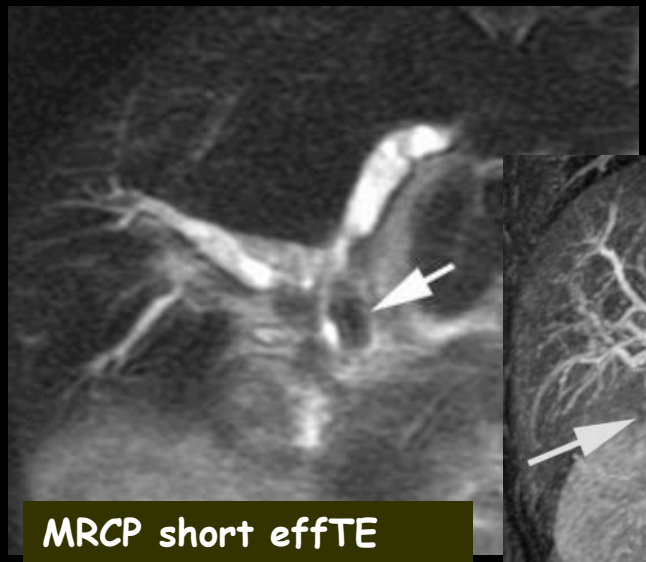


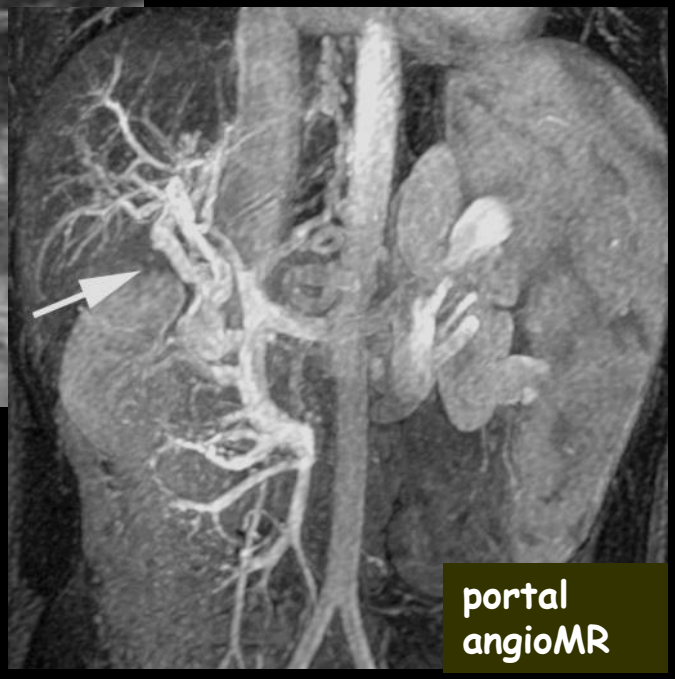
ERCP

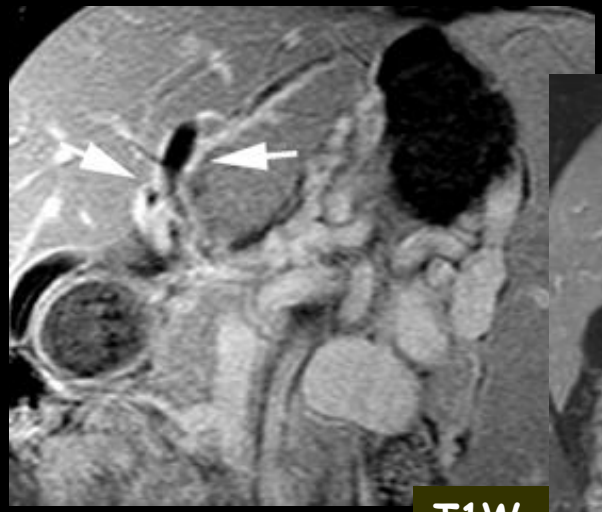
Cholesterol stones incrusted in the wall of proximal hilar bile ducts (confirmed at surgery)

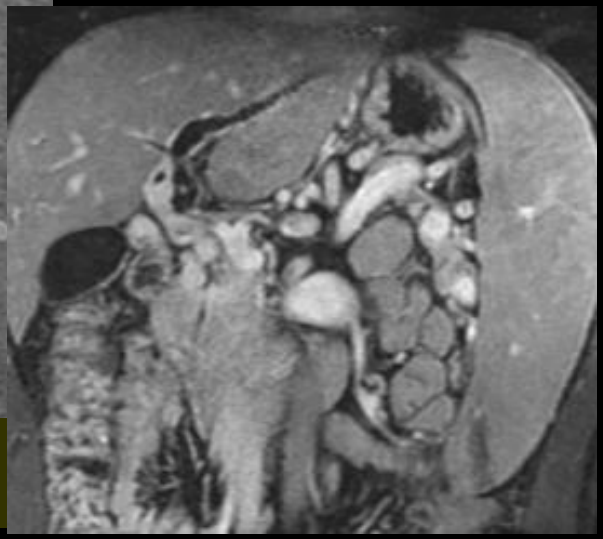
18yo teenager; cystic fibosis with liver insufficiency











Pedicular and porta hepatis portal varices due to portal hypertension (secondary biliary cirrhosis and portal thrombosis .often misnamed "portal cavernoma")

2a. autoimmune pancreatitis

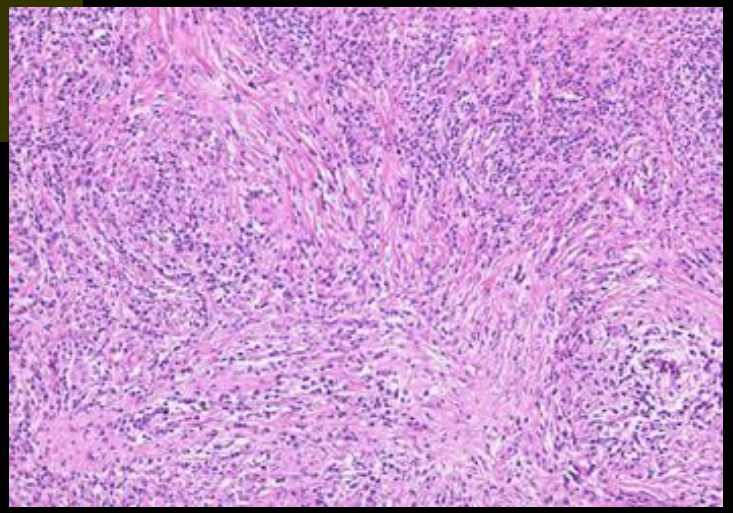
-autoimmune pancreatitis (AIP) is a chronic inflammation of the pancreas due to a postulated autoimmune mechanism .

-occasionally,AIP is associated with other autoimmune disorders such as chronic IBD ,autoimmune cholangitis,Sjögren's disease, retroperitoneal fbrosis,diabete mellitus , SLE,vasculitis , thyroiditis

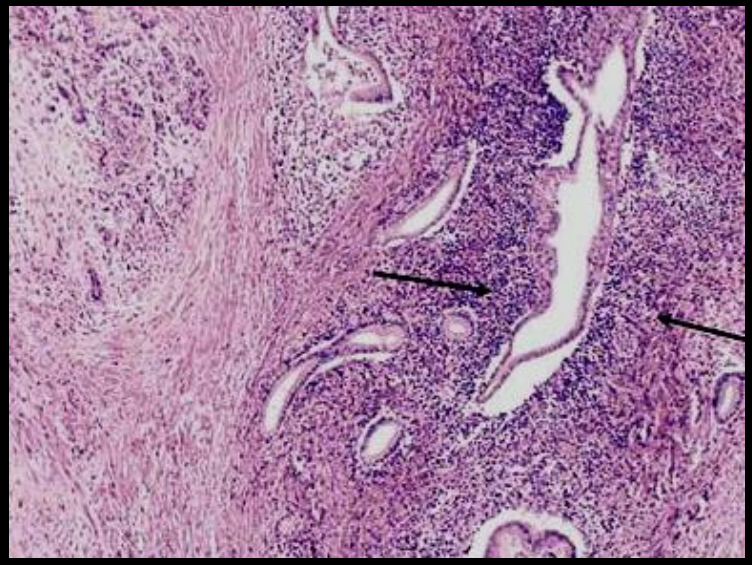
-histologic hallmark is inflammatory lymphoplasmocytic periductal inflammation with massive fibrosis

-AIP is the main differential diagnosis of pancreatic adencarcinoma and is important to avoid unnecessary surgery

-remarkable response to steroid therapy because of its autoimmune pathogenesis must be used to confirm the diagnosis



lymphoplasmocytic sclerosig pancreatitis



periductal collar of lymphoplasmocytic infiltration

MDCT imaging of autoimmune pancreatitis

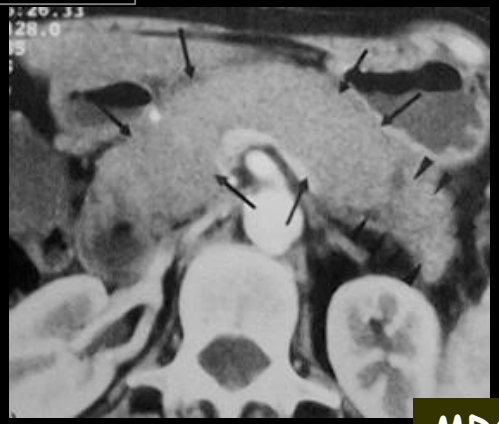
-focal (head) or diffuse hypertrophy (sausage shaped) of the pancreas

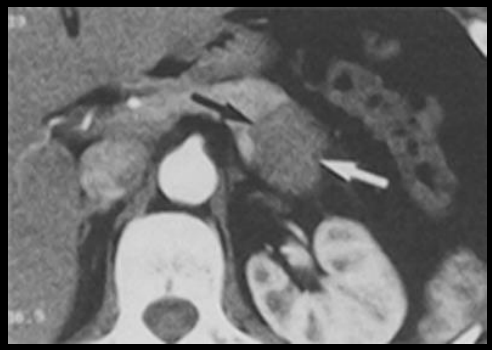
-loss of lobularity

-no peripancreatic fat stranding

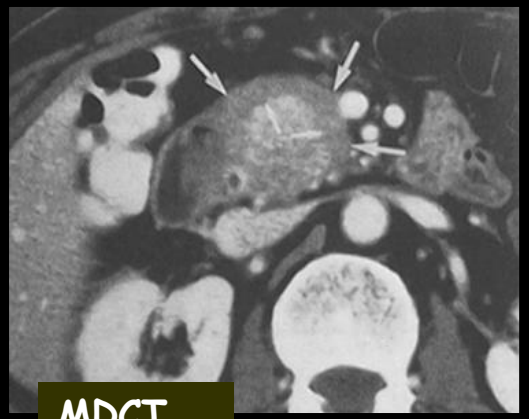
-peripheral rim of a hypoattenuation "halo"

-associated distant lesions (autoimmune cholangitis , retroperitoneal fibrosis ..)

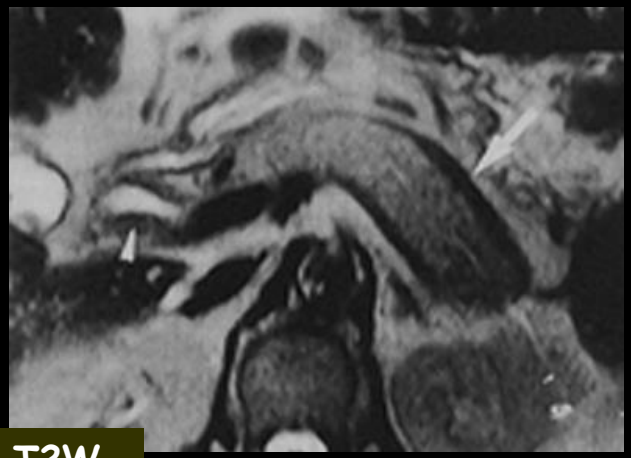




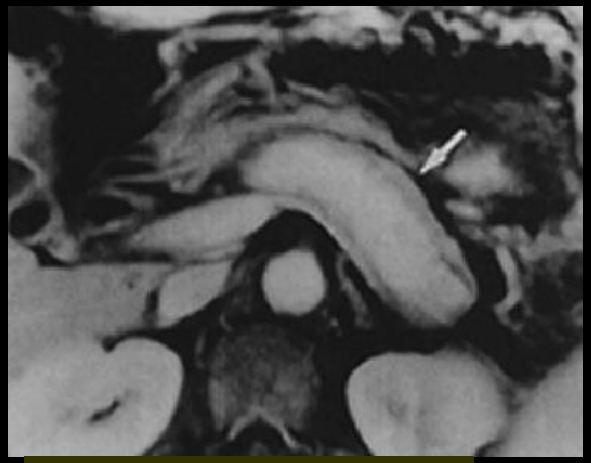
MDCT



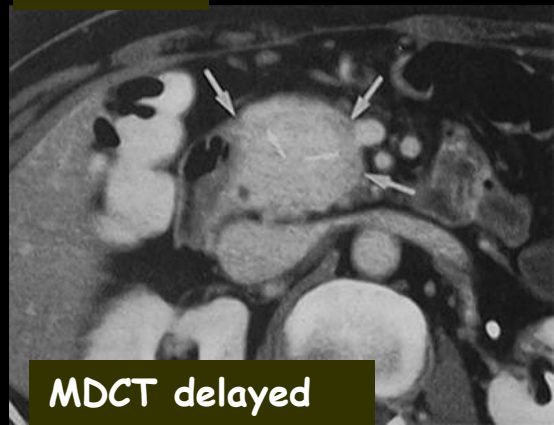
MDCT



T2W

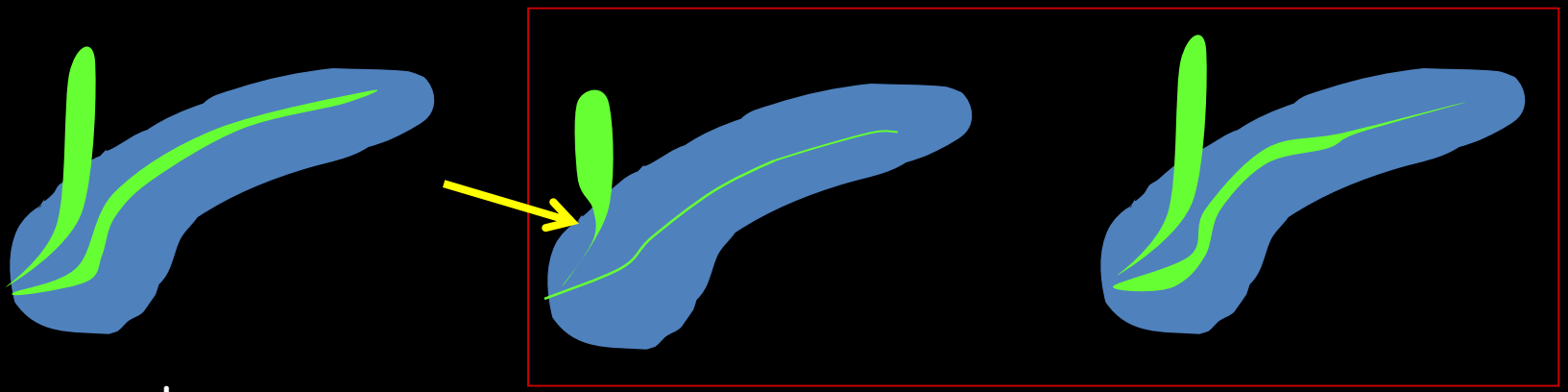


T1W gado ,delayed



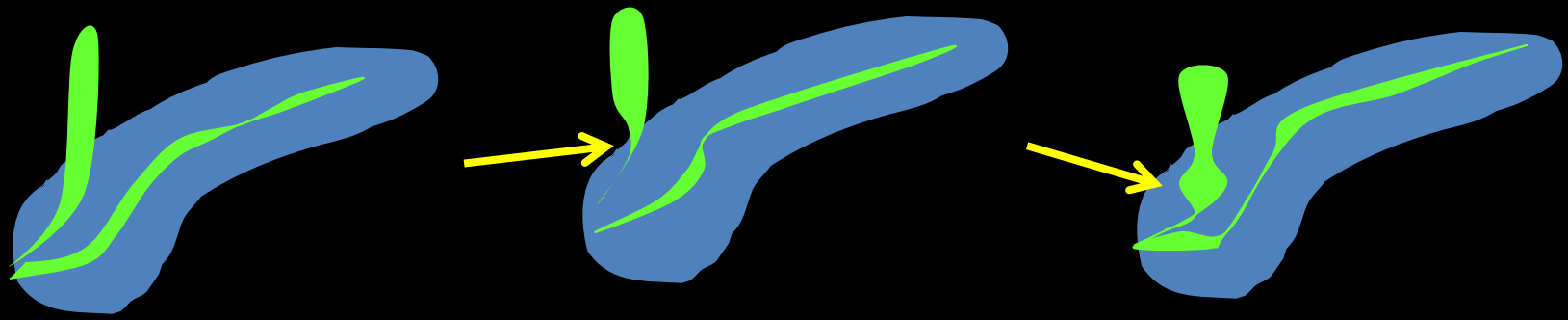
MDCT delayed

ductal pancreatobiliary lesions in autoimmune pancreatitis (MRCP or retrograde endoscopic wirsungography)

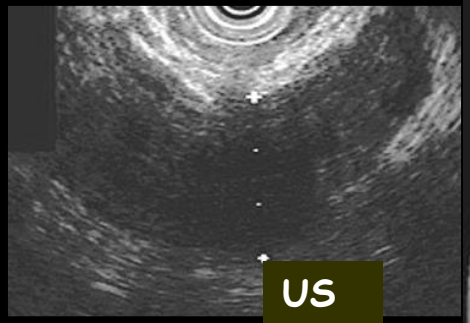


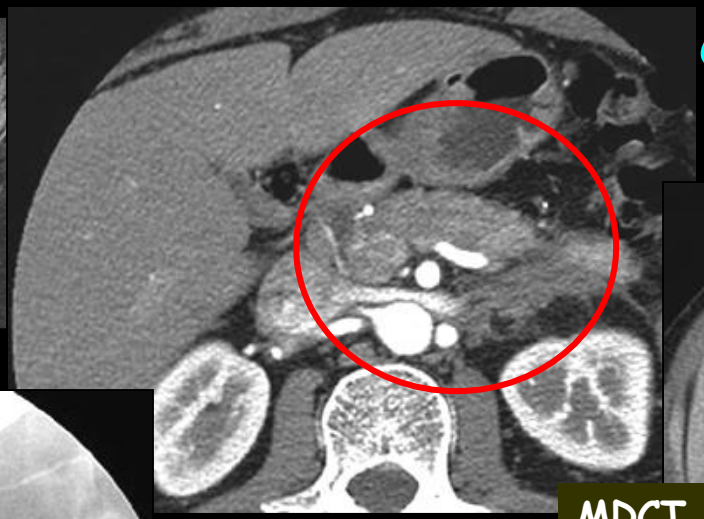
normal

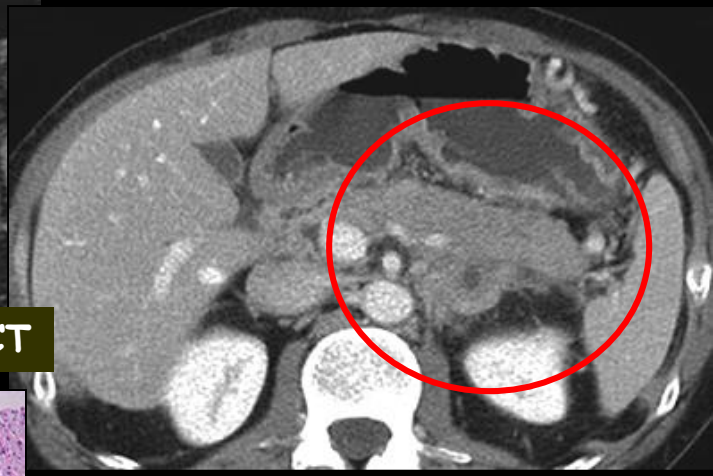
more common anomalies

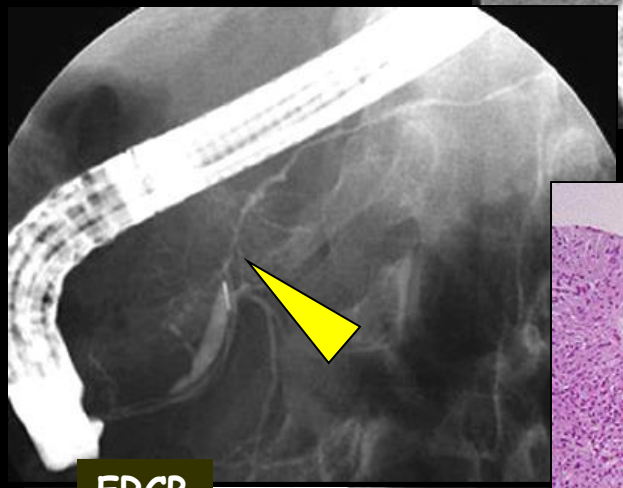


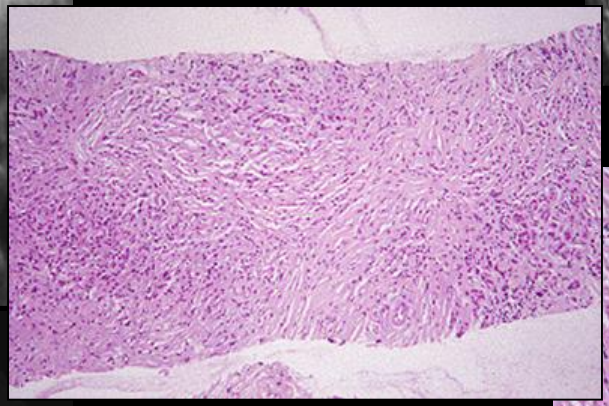
Diffuse pancreatic ductal narrowing without or with minimal upstream dilatation ; stenosis of intrapancreatic main bile duct is frequently observed

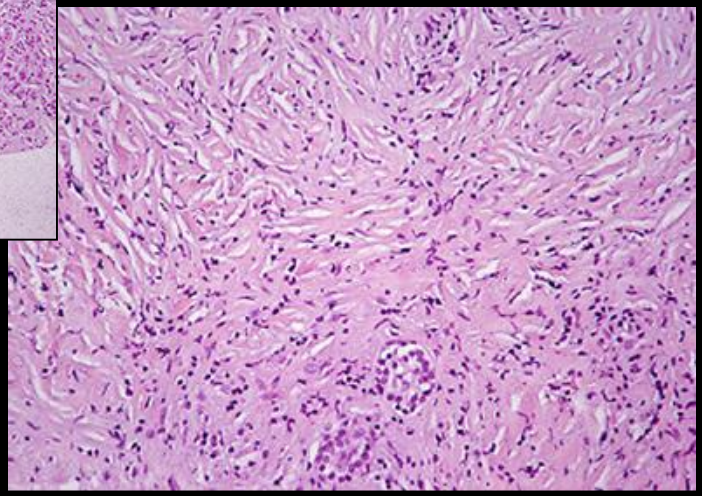


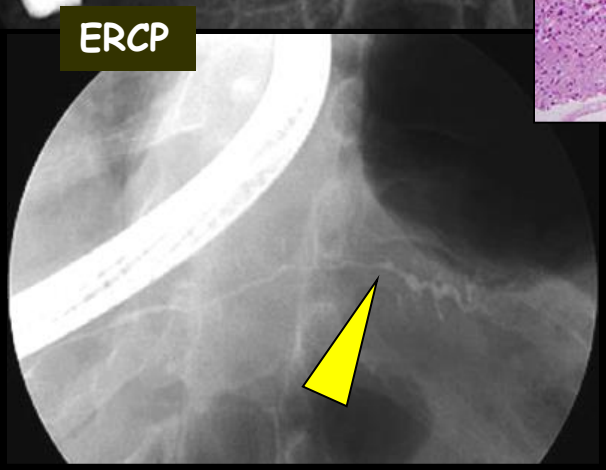






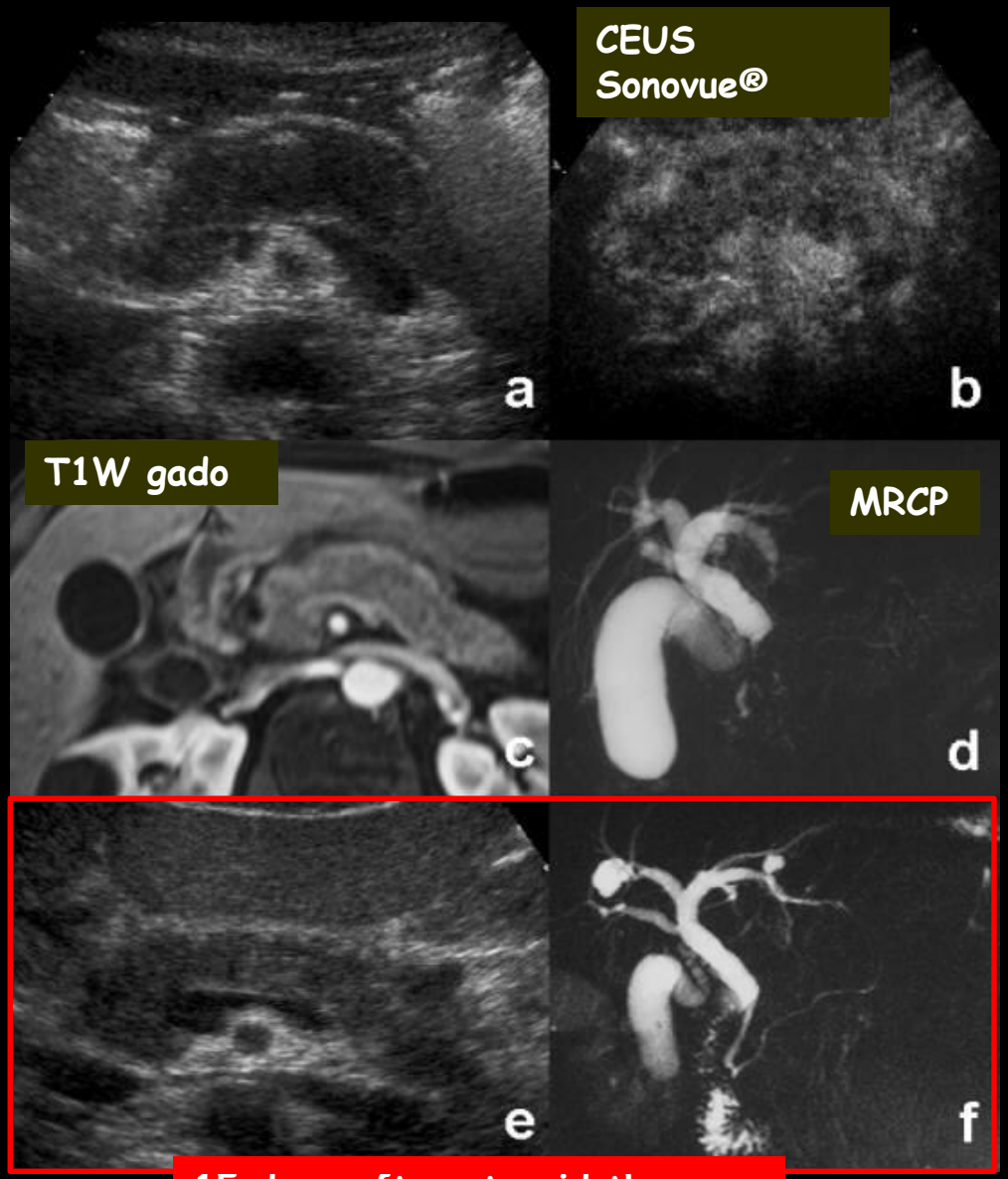






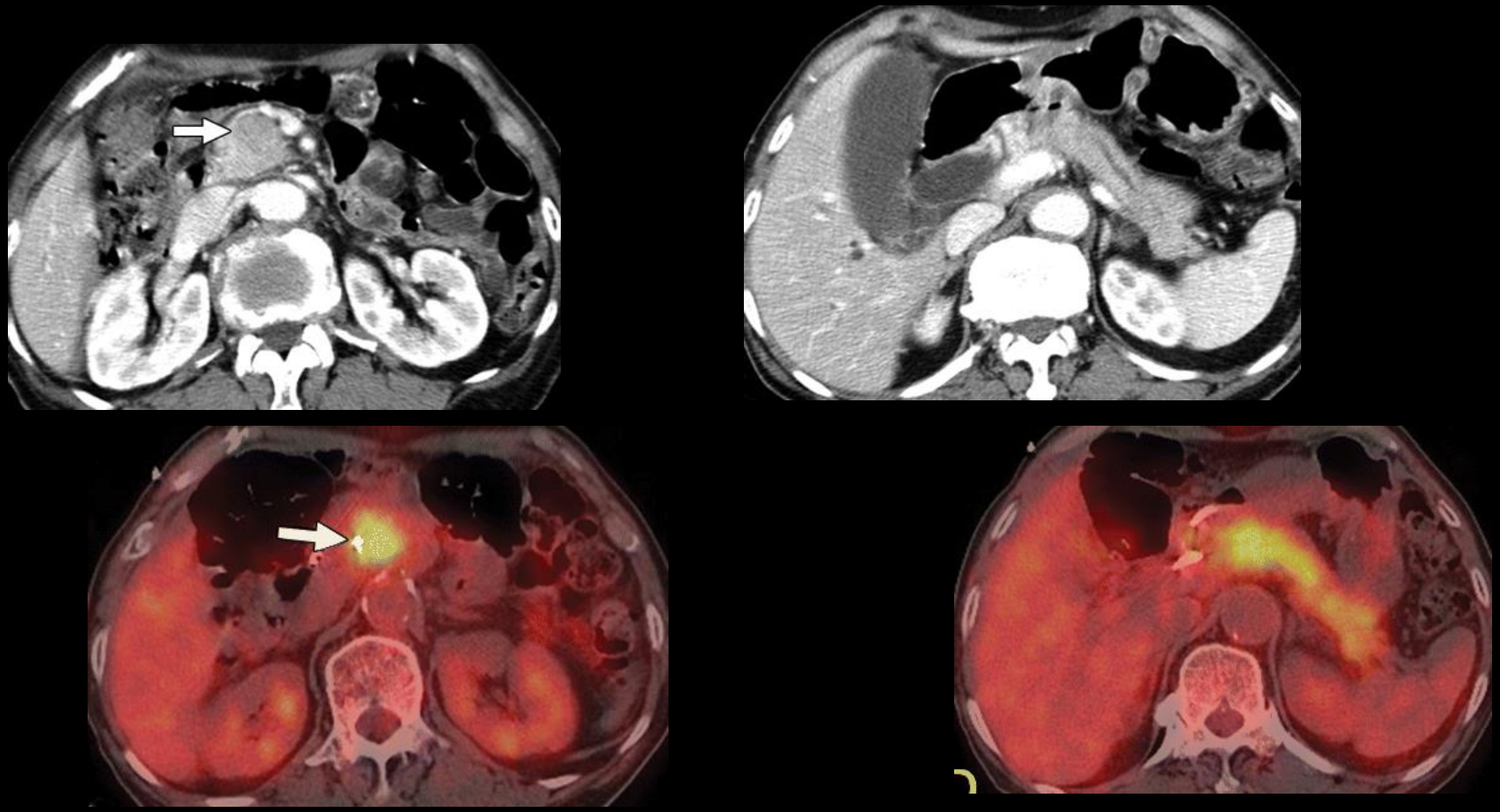
42 yo woman , autoimmune pancreatitis

-quick response to corticosteroid (40 mg /day for 1 week followed by a taper of the daily dose by 5 mg per week) is esentiel to know and to use for the diagnosis



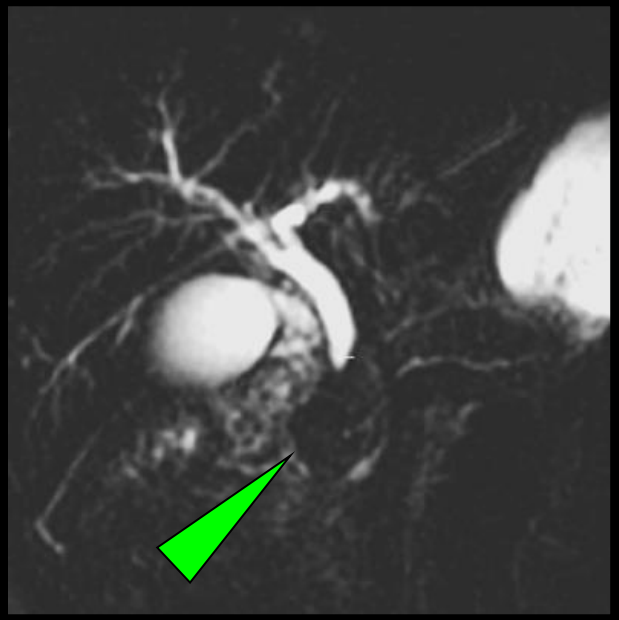
.Morana G et al. Autoimmune pancreatitis: Instrumental diagnosis JOP. J Pancreas (Online) 2005; 6(1 Suppl.):102-107

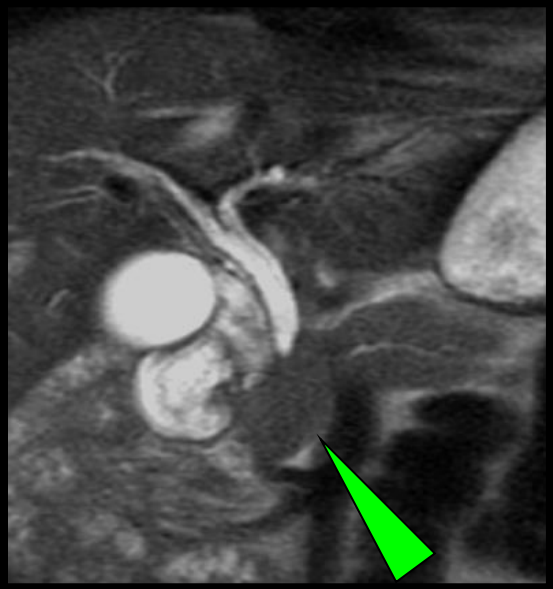
55yo man ,AIP ,diffuse homogeeous hypermetabolism with 18 FDG PET/CT can help for differential diagnosis with pancreatic adenocarcinoma

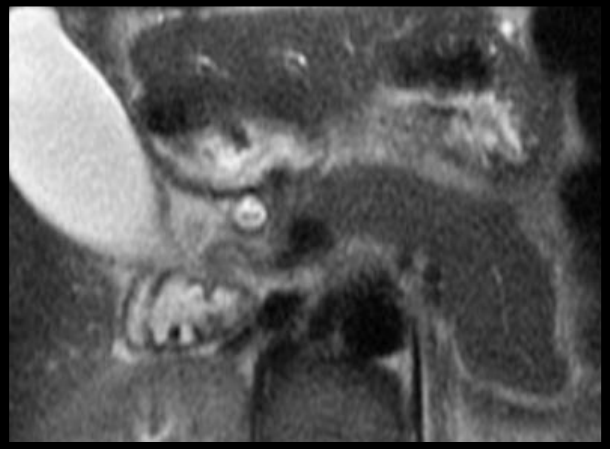


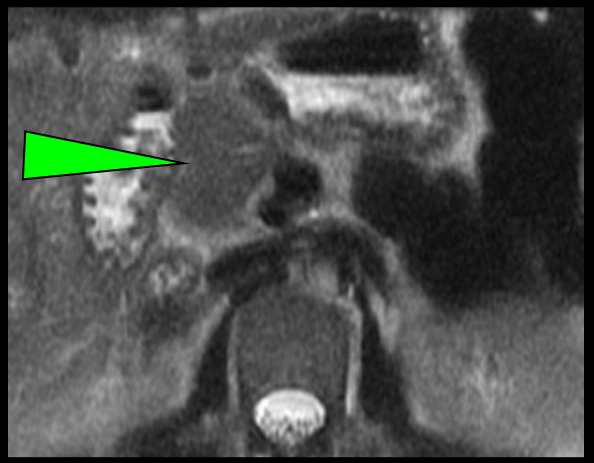
Utility of ^{18}F-FDG PET/CT for differentiation of autoimmune pancreatitis with atypical pancreatic imaging findings from pancreatic cancer
Lee TY[1], Kim MH[2], Park DH et al.[2] AJR Am J Roentgenol 2009;193:343-348

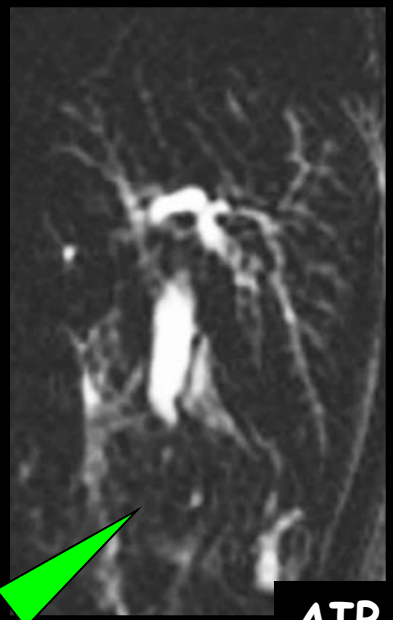
36 yo woman ,pain of the right upper quadrant with cholestasis and anorexia.

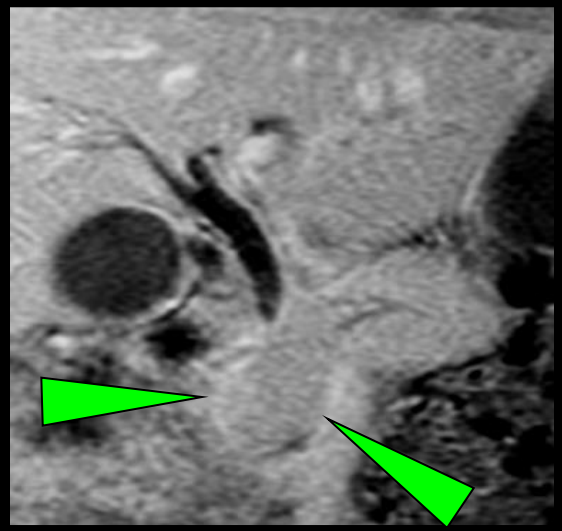










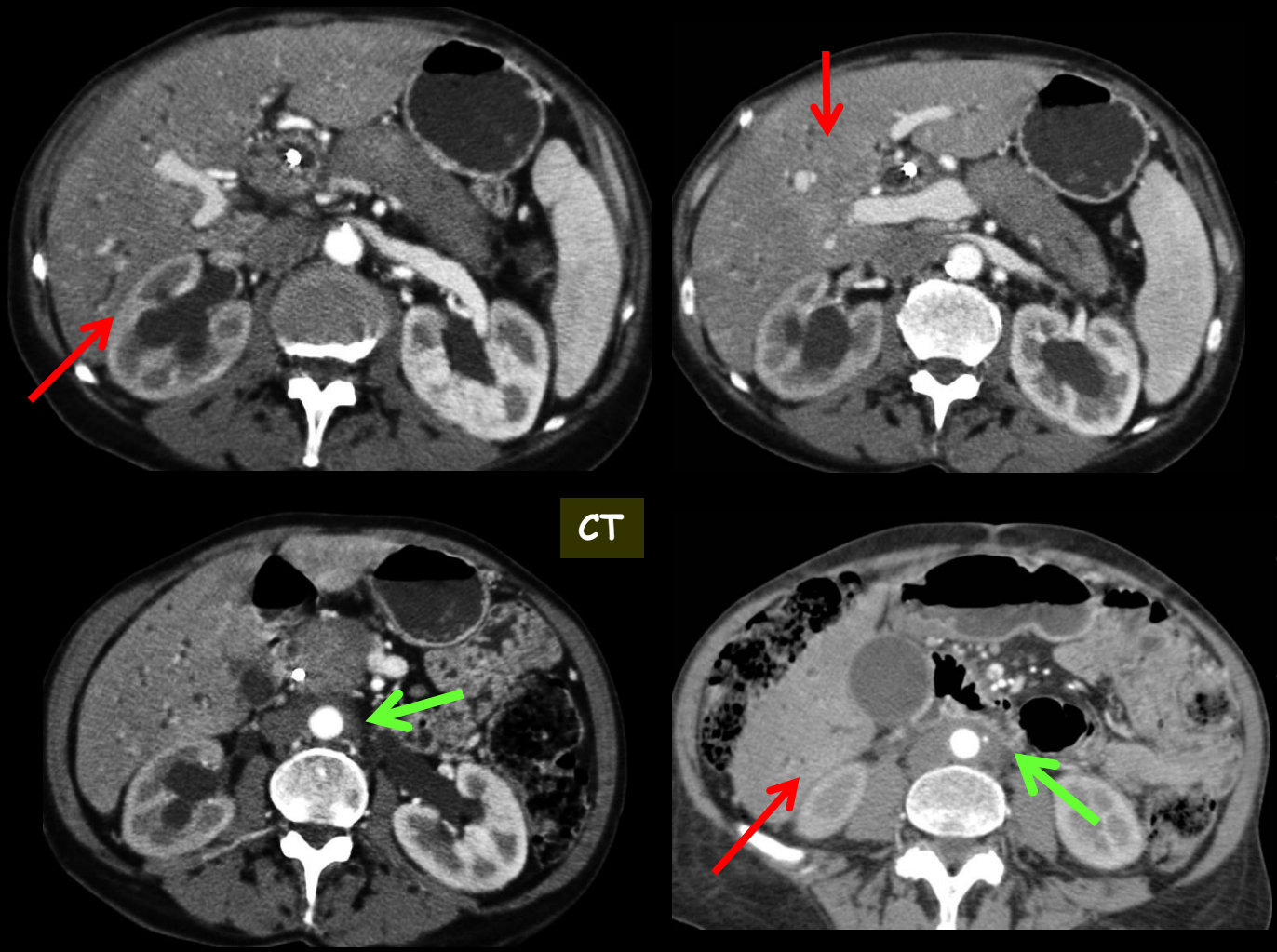


-homogeneous mass of the pancreatic head ;
-dilatation of supra pancreatic main bile duct
-no dilatation of the upstream main pancreatuc duct

AIP localised to pancreatic head

-are AIP one of the 'IgG4 related diseases" ?

63 yo woman ,abdominal pain ,cholestasis, renal insufficiency

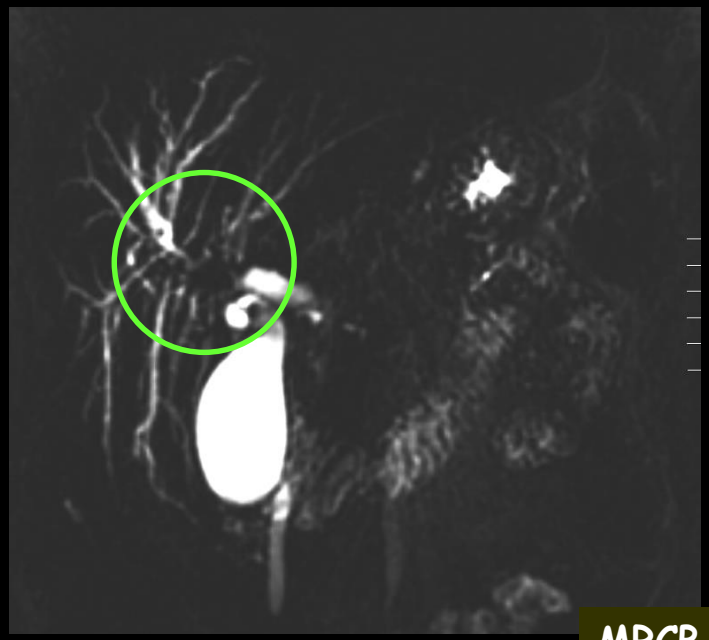


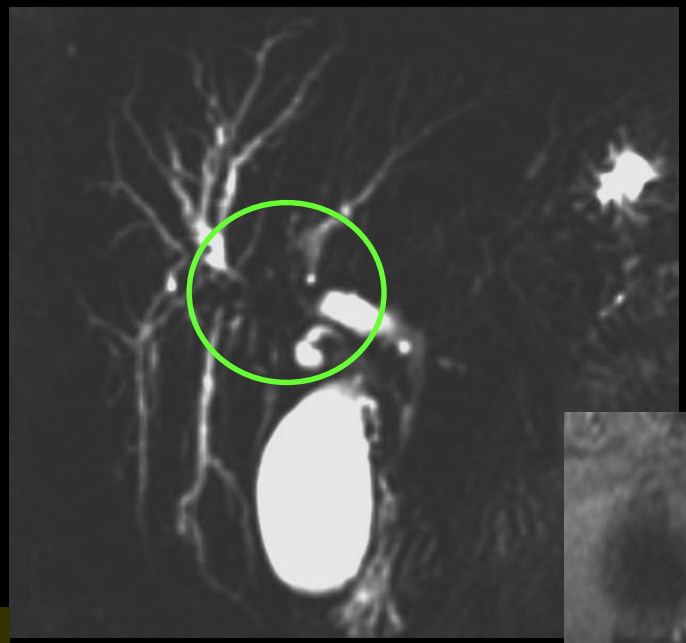
diffuse hypertrophy of the pancreas with loss of lobularity

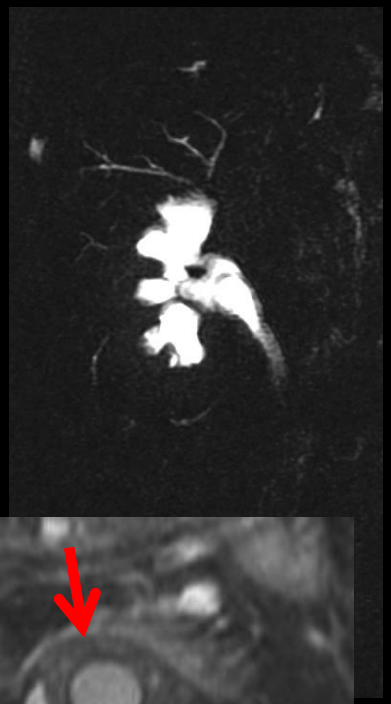
no dilatation of the main pancreatic duct

intrahepatic bile duct dilatation (autoimmune cholangitis)

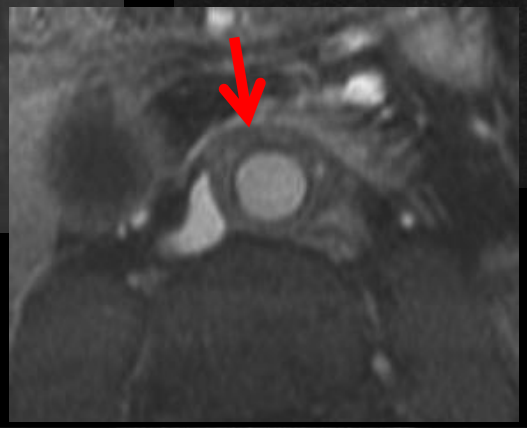
retroperitoneal fibrosis with ureterohydronephrosis

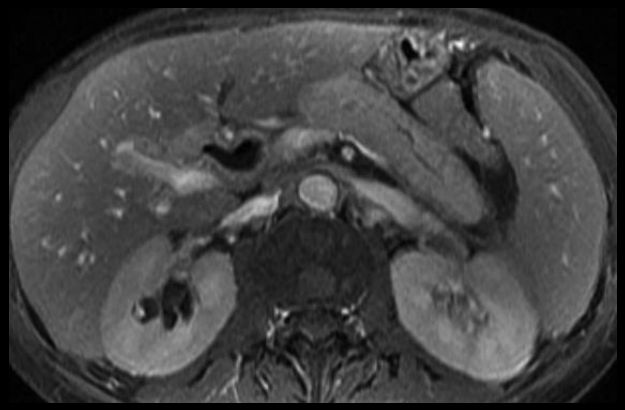


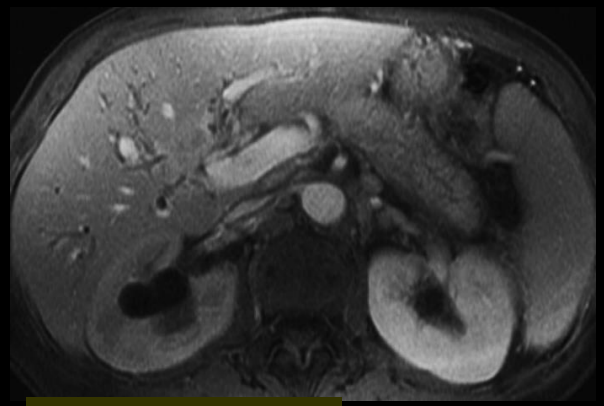


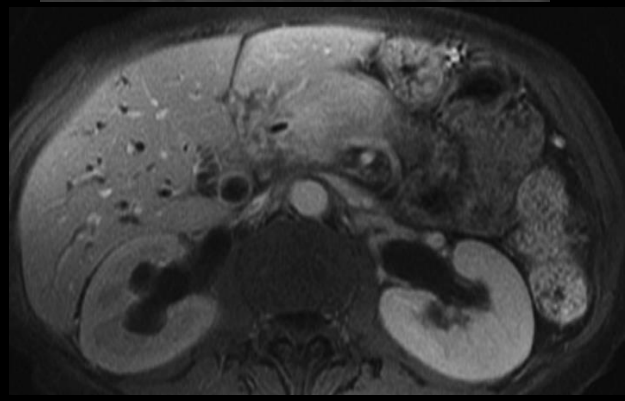


MRCP

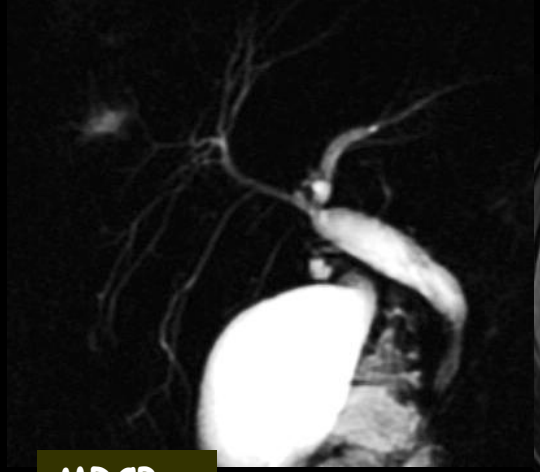




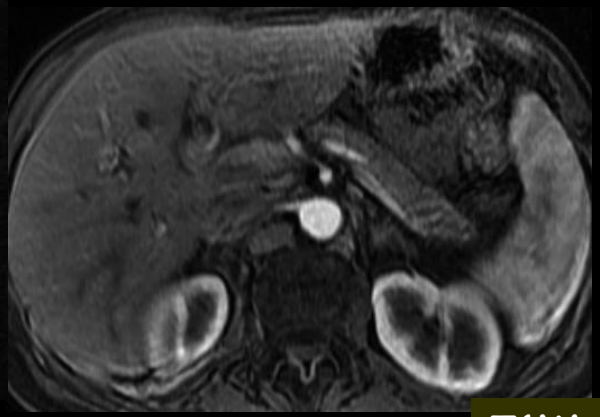


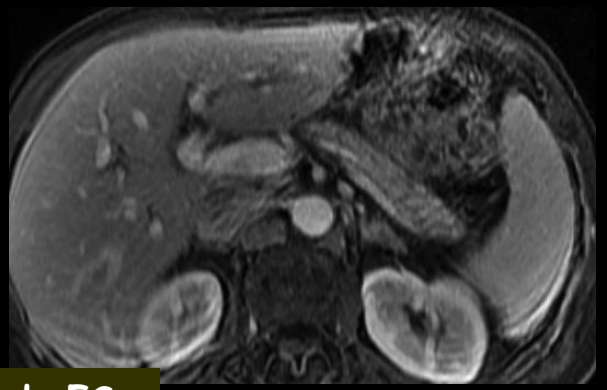


T1W gado FS

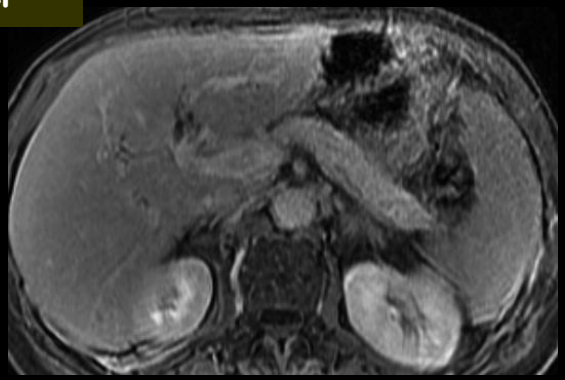


MRCP

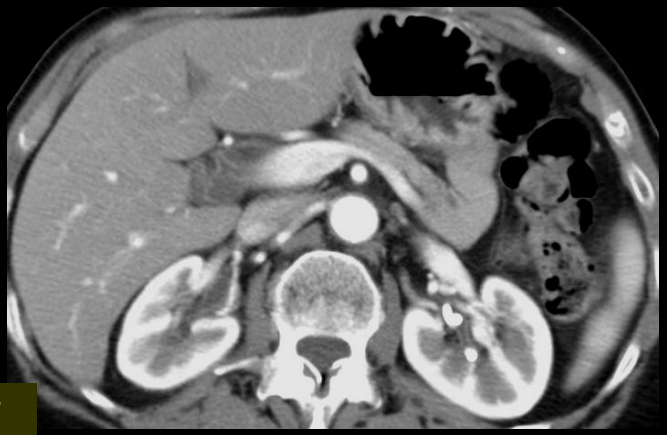




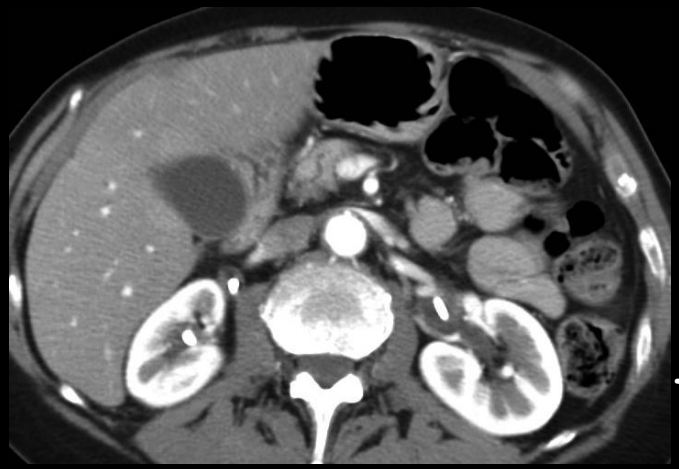
T1W gado FS



after one month of corticosteroids

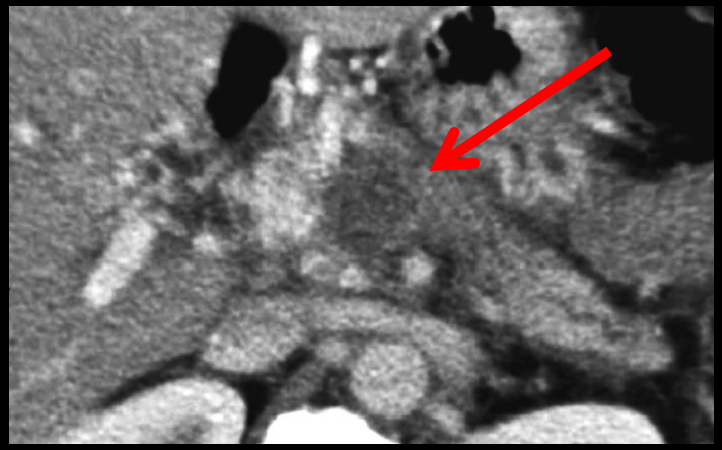


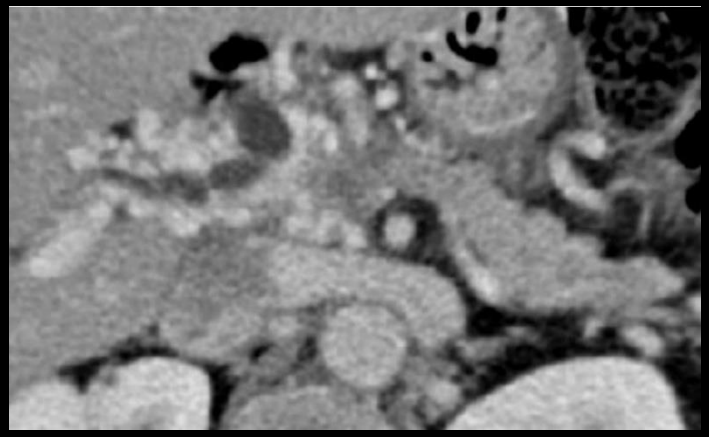
CT



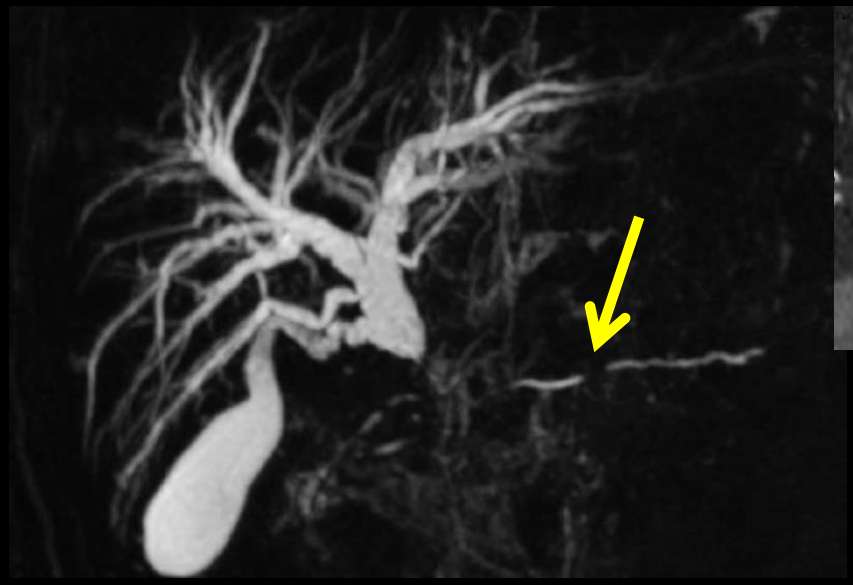
three months later

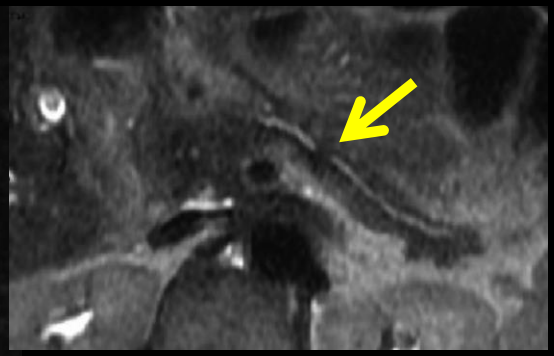
40 yo man ,intense epigastric pain with weight loss and increasing cholestasis ; low back pain.

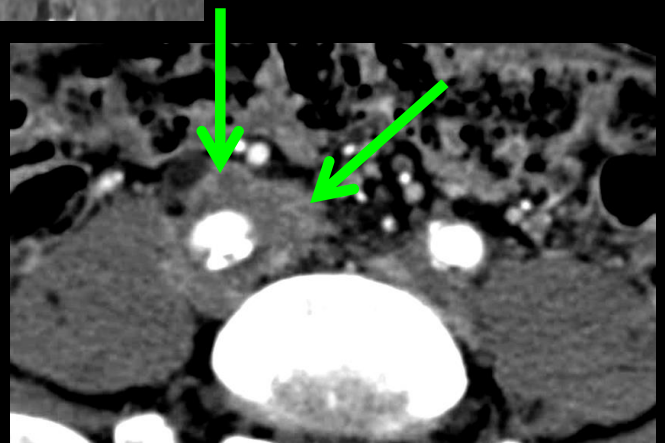




évolution after corticosteroid

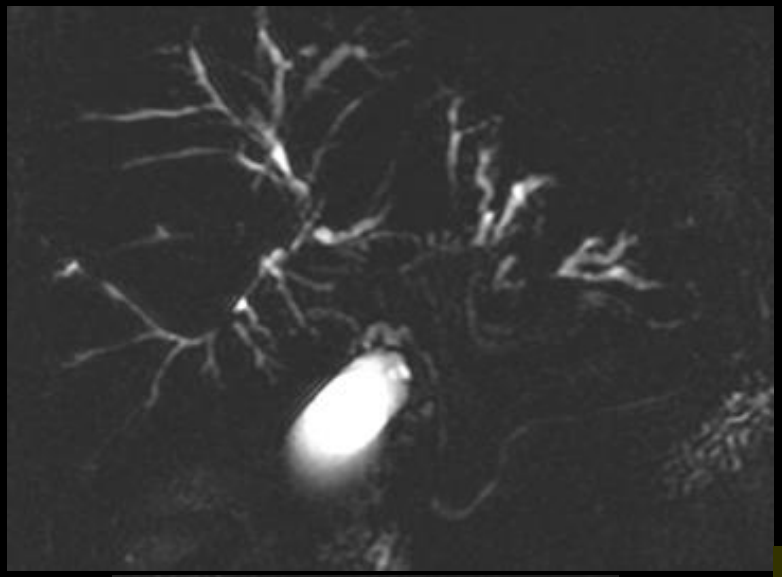




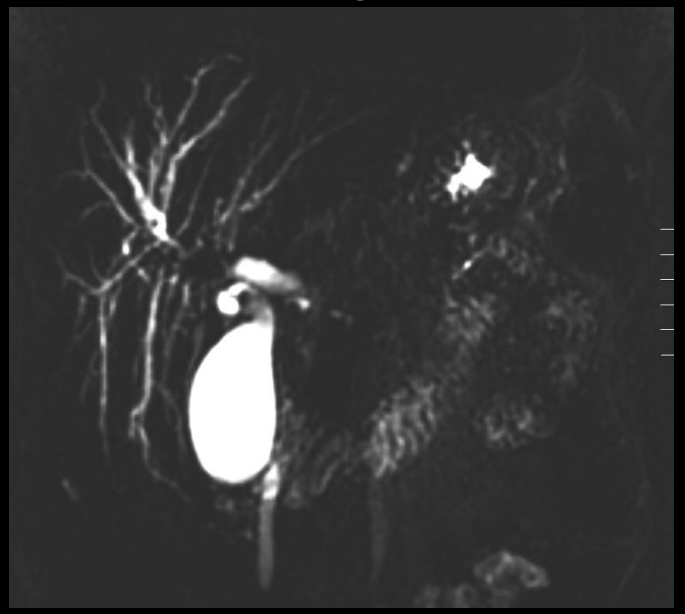


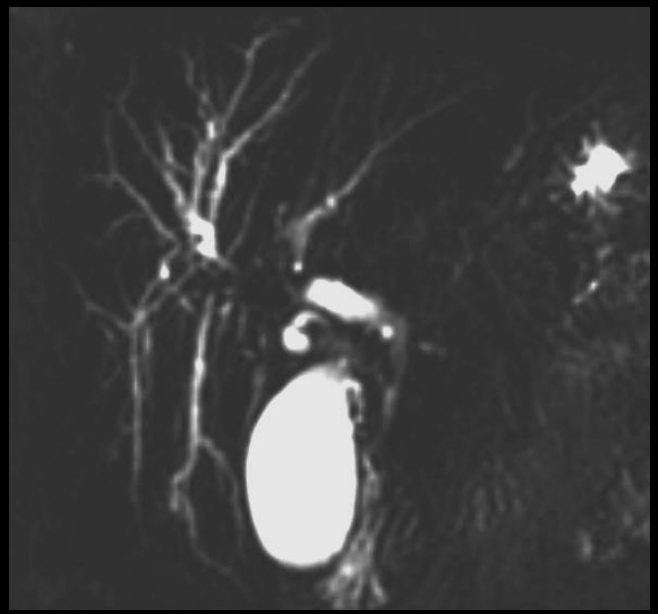
AIP , iliac retroperitoneal fibrosis portal vein thrombosis with cavernoma .

How can we recognize identify autoimmune corticosensitive cholangitis ?



MRCP





primary sclerosing cholangitis

autoimmune cholangitis

Are serologic data useful for he diagnosis of PAI ? ?

Finkelberg DL et al. N Engl J Med 2006 ; 336 : 2670-6

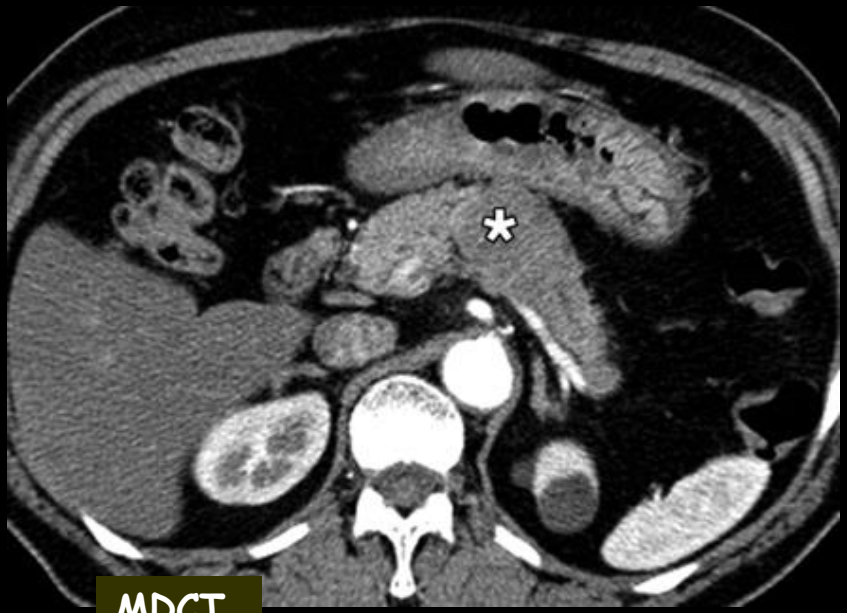
Table 1. Diagnostic Criteria for Autoimmune Pancreatitis.*

Findings on Imaging Radiography (One Required)		Serologic and Histologic Findings (One Required)		
Cross-Sectional Imaging	ERCP or MRCP	Serologic Analysis	Pancreatic–Biliary Histologic Analysis	Nongastrointestinal Histologic Analysis
Diffusely enlarged pancreas	Segmental pancreatic ductal narrowing	Elevated serum IgG4 level	Periductal lymphoplasmacytic infiltration or fibrosis	Tubulointerstitial nephritis with immune deposits within tubular basement membranes
Enhanced peripheral rim of hypoattenuation "halo"	Focal pancreatic ductal narrowing	Elevated serum IgG or gamma globulin level	Obliterative phlebitis	Pulmonary interstitial lymphoplasmacytic infiltration with IgG4-positive plasma cells†
Low-attenuation mass in head of pancreas	Diffuse pancreatic ductal narrowing	Presence of ALA, ACA II, ASMA, or ANA	IgG4-positive plasma cells in tissue†	Chronic sialadenitis with IgG4-positive plasma cells†

* Criteria were modified from those of the Japan Pancreas Society.[30] ERCP denotes endoscopic retrograde cholangiopancreatography, MRCP magnetic resonance cholangiopancreatography, ALA antilactoferrin antibody, ACA II anti–carbonic anhydrase II antibody, ASMA anti–smooth-muscle antibody, and ANA antinuclear antibody.

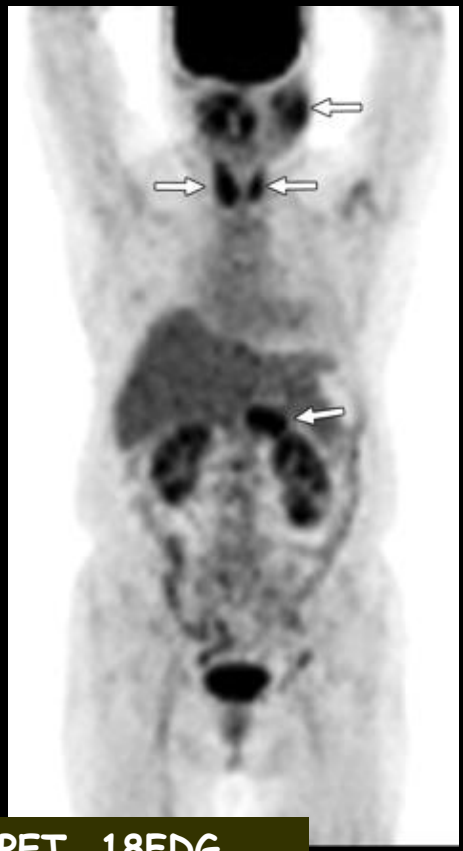
† The presence of tissue IgG4-positive cells is not necessarily abnormal, but an increased number of infiltrating IgG4-positive plasma cells is abnormal.

Is there an interest of 18FDG PET/CT for he diagnosis of PAI ? ?



MDCT

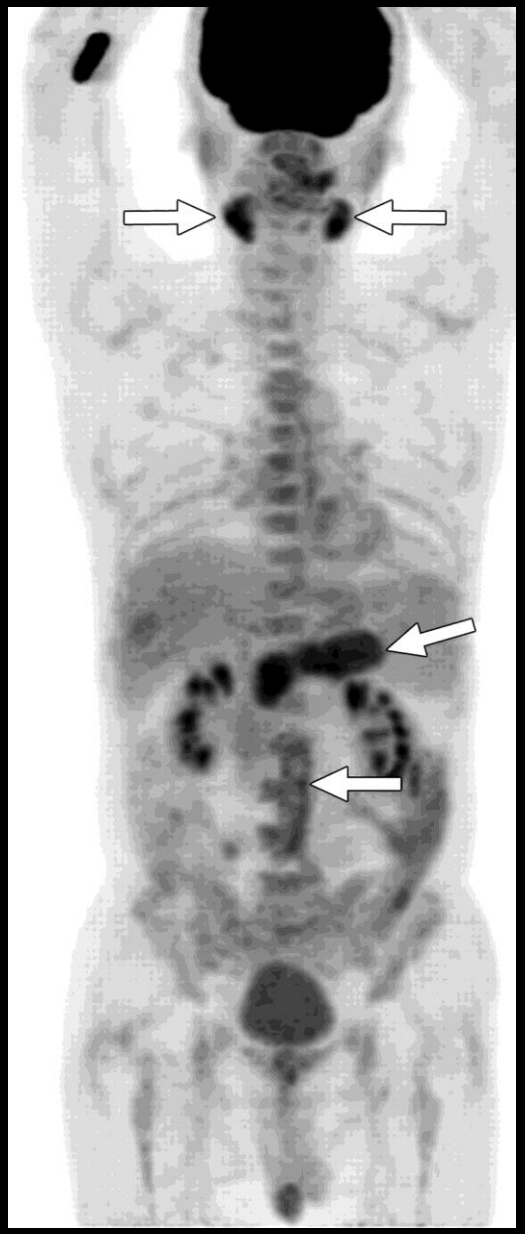
66 yo woman AIP ,metabolic hyperactivity in caudal pancreas, thyroid and salivary glands . These extrapancreatic sites of 18 FDG are not seen in pancreatic adenocarcinoma

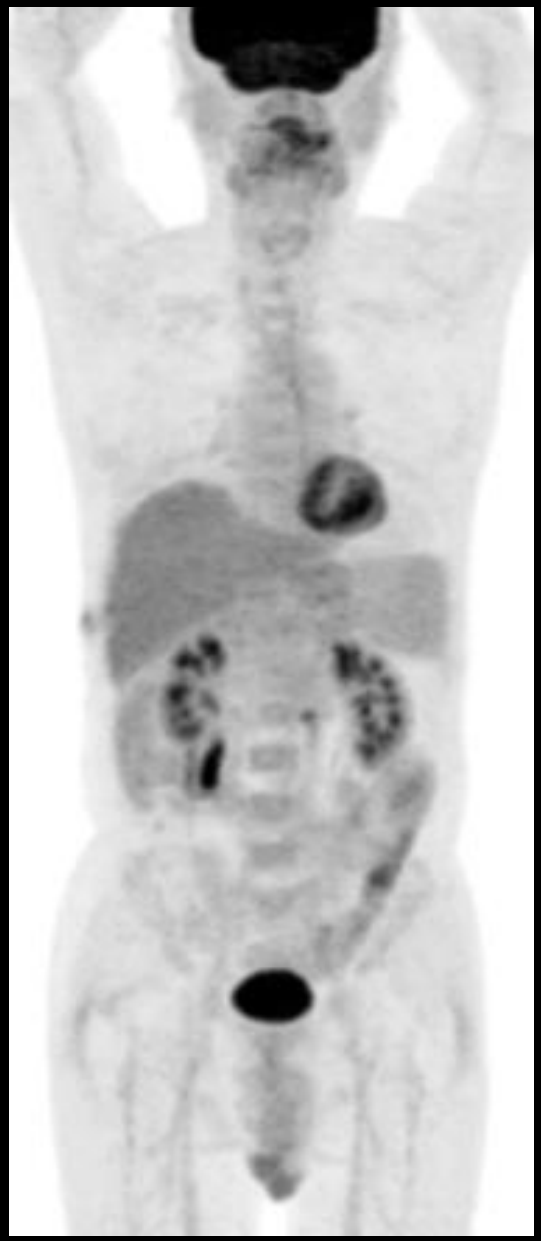


PET 18FDG

Utility of ^{18}F-FDG PET/CT for differentiation of autoimmune pancreatitis with atypical pancreatic imaging findings from pancreatic cancer
Lee TY[1], Kim MH[2], Park DH et al.[2] AJR Am J Roentgenol 2009;193:343-348

71 yo man ,PAI ,sialadénitis and retroperitoneal fibrosis with uretrohydronephrosis

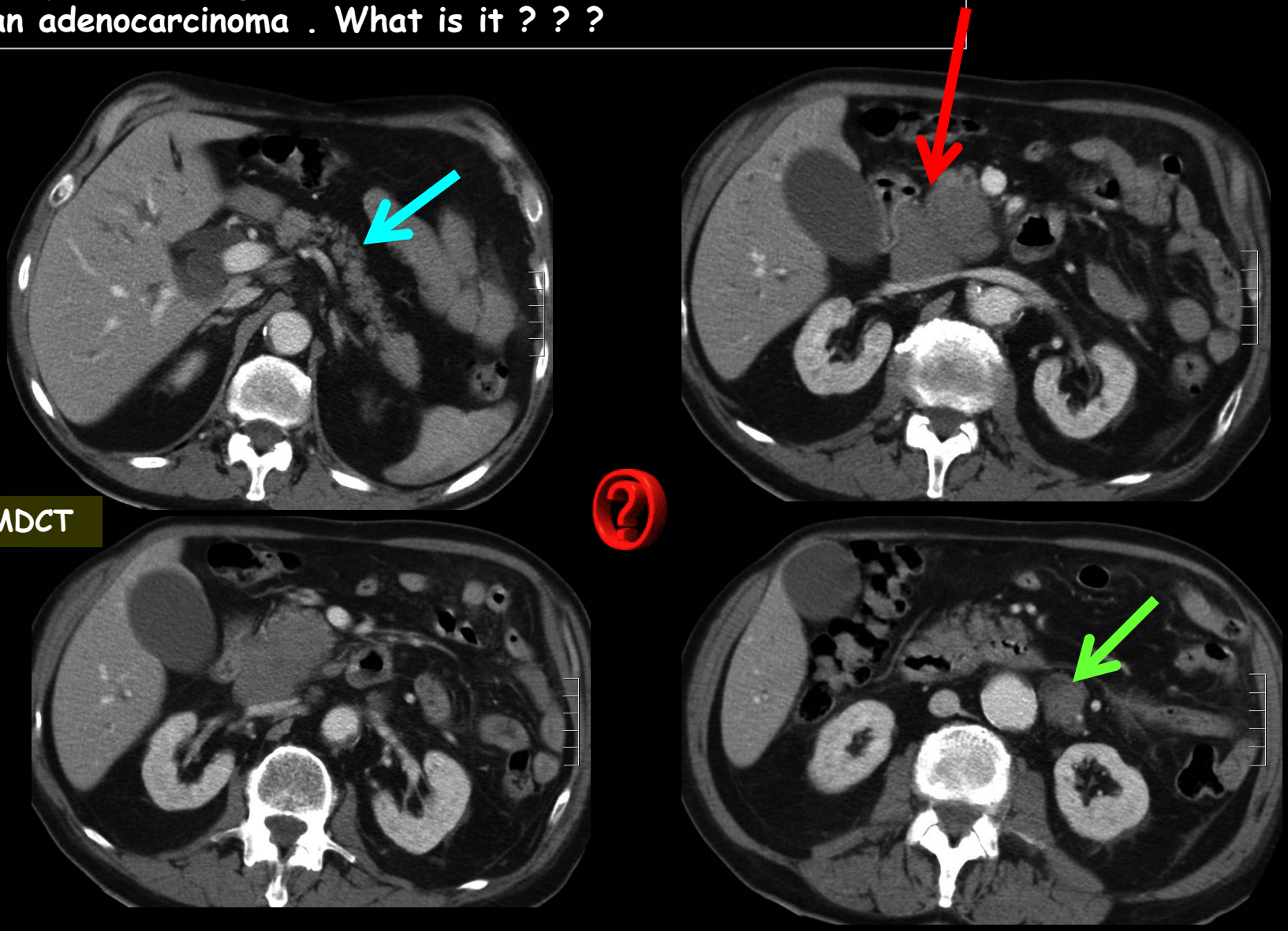




Utility of ^{18}F-FDG PET/CT for differentiation of autoimmune pancreatitis with atypical pancreatic imaging findings from pancreatic cancer
Lee TY[1], Kim MH[2], Park DH et al.[2] AJR Am J Roentgenol 2009;193:343-348

One exemple of differential diagnosis of AIP

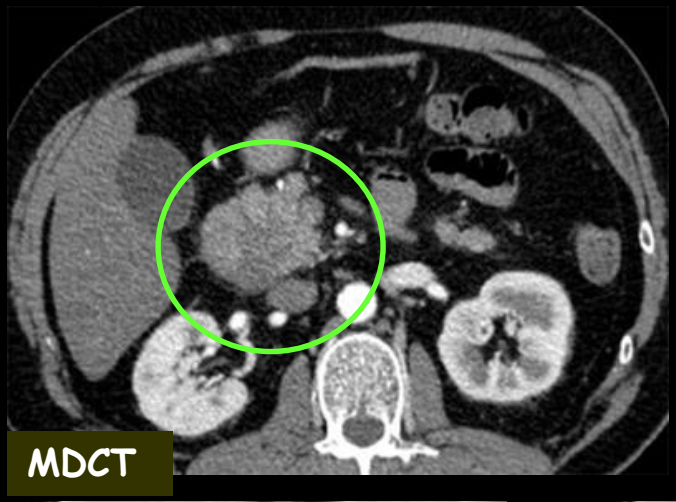
80 yo man ,weight loss,cholestasis ; it's not an AIP nor an adenocarcinoma . What is it ? ? ?

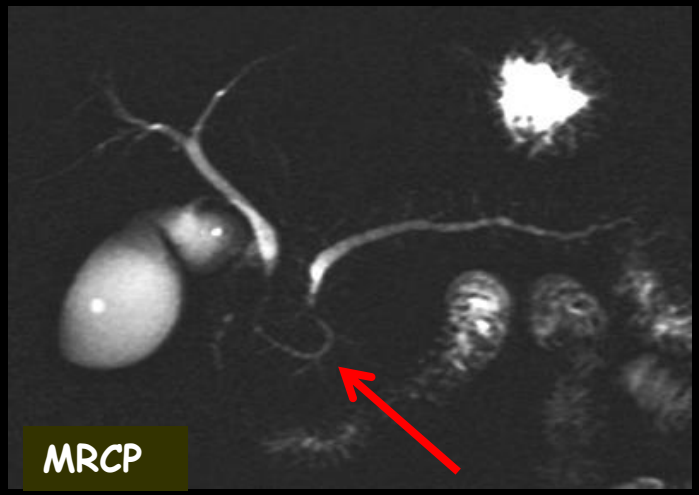


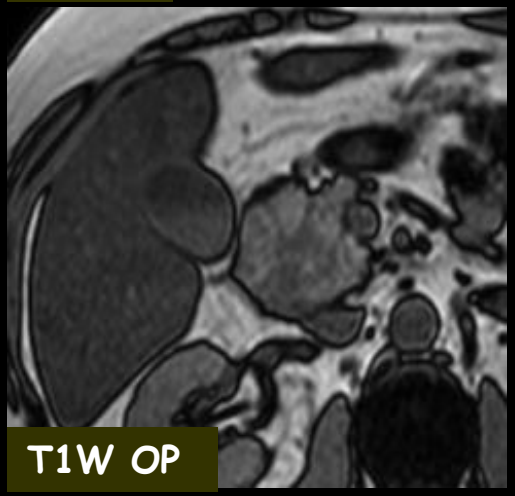
High grade NHL with pancreatic localisation

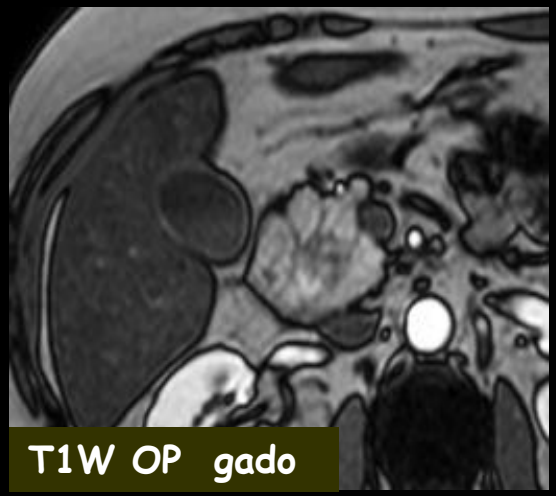
2b. Inflammatory pseudotumor of the pancreas

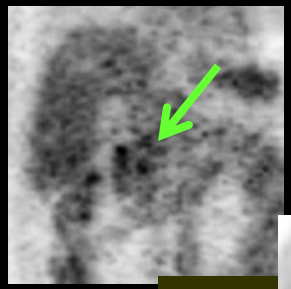
56 yo man,alcoholic and smocker, clinical presentation of mild pancreatitis

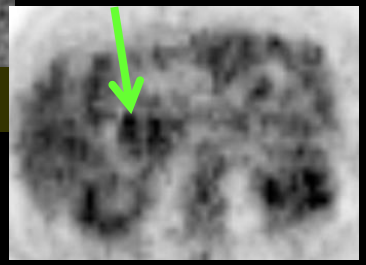




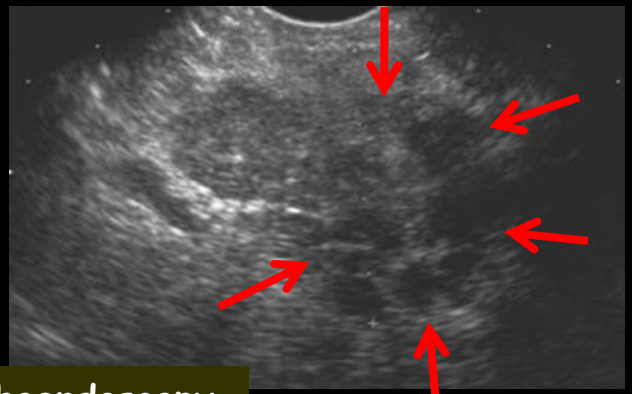




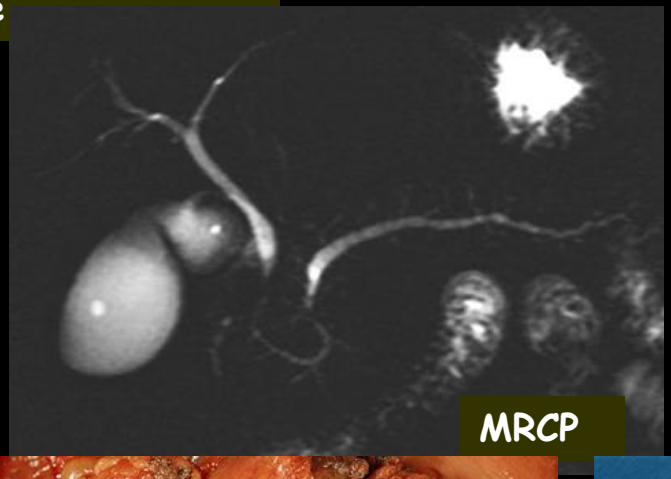




Obs Pr .B Dupas Nantes



échoendoscopy
e

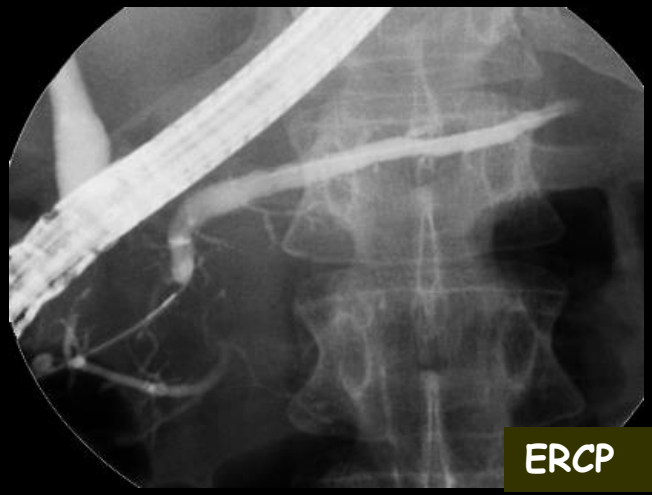


MRCP

2 échoendoscopic guided biopsies with cytologic analysis : no supect cell;

new imaging investigations after 3 months

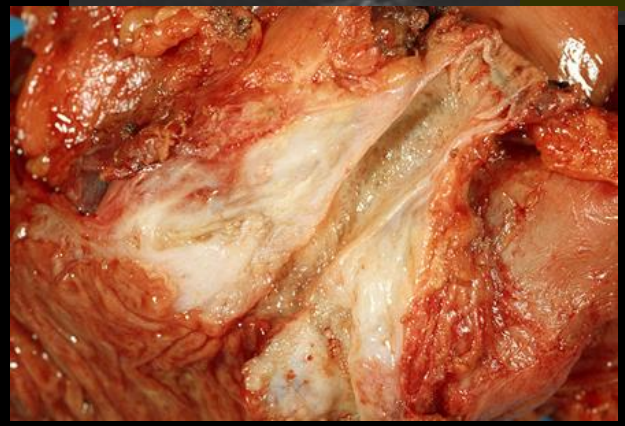
CA 19-9 136,8 U/ml

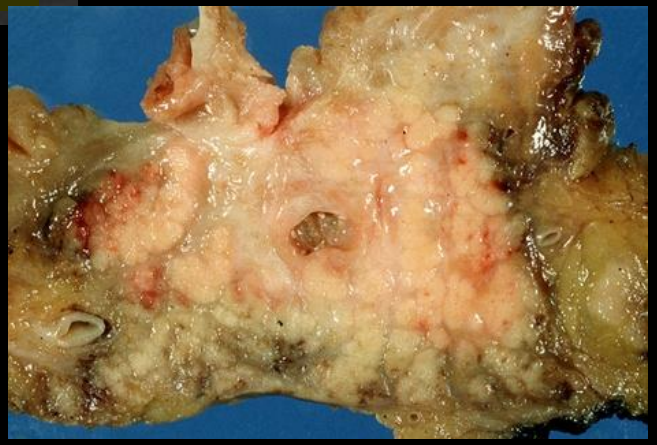


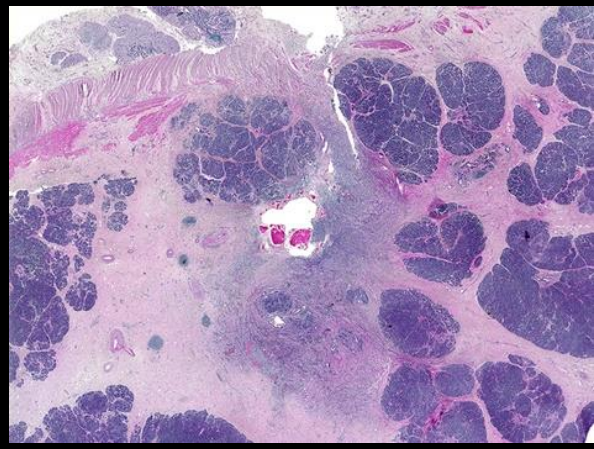
ERCP

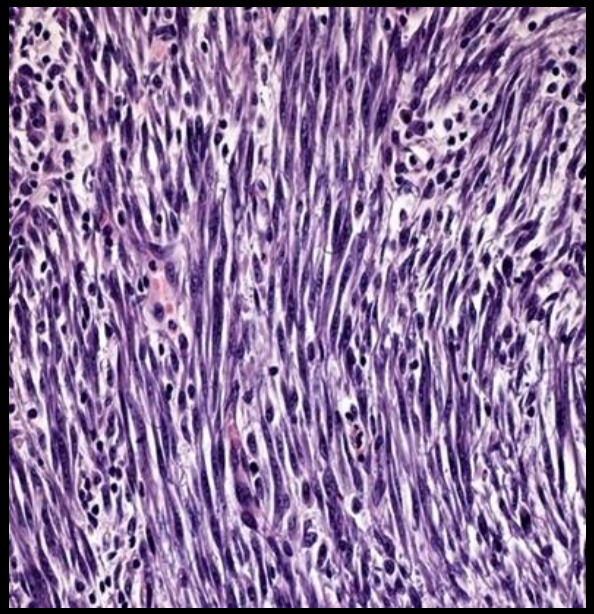
Obs Pr .B Dupas Nantes

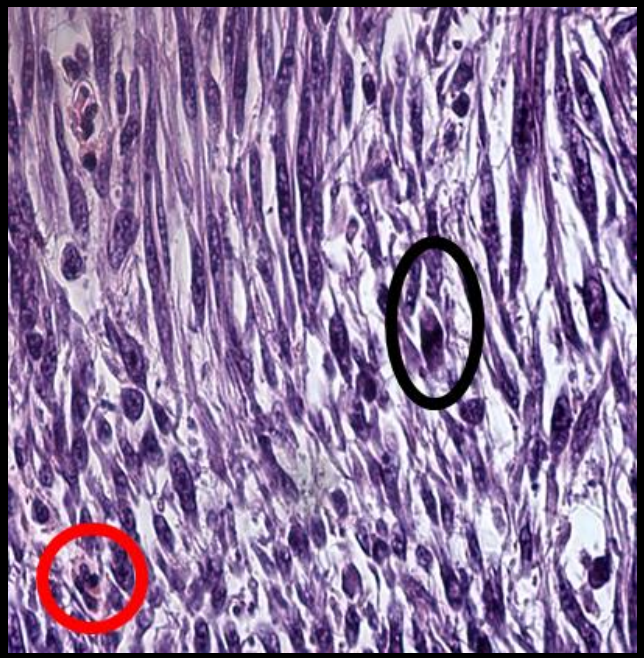
Surgery is decided : Whipple intervention

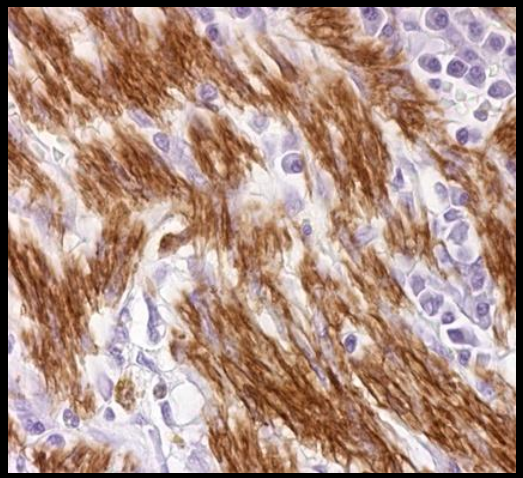


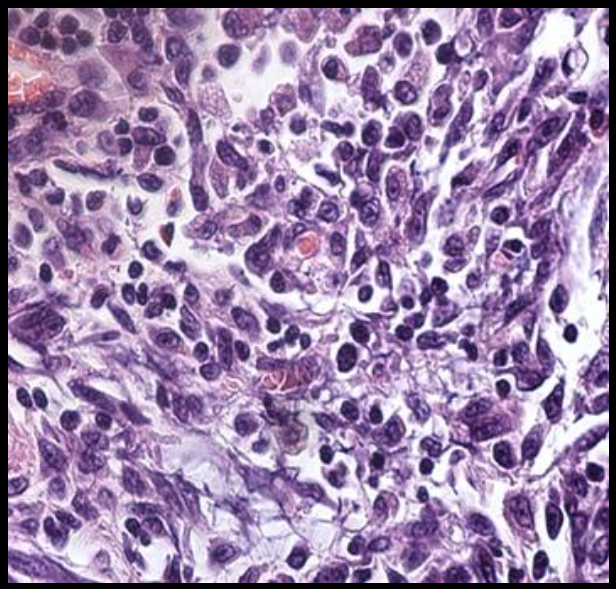










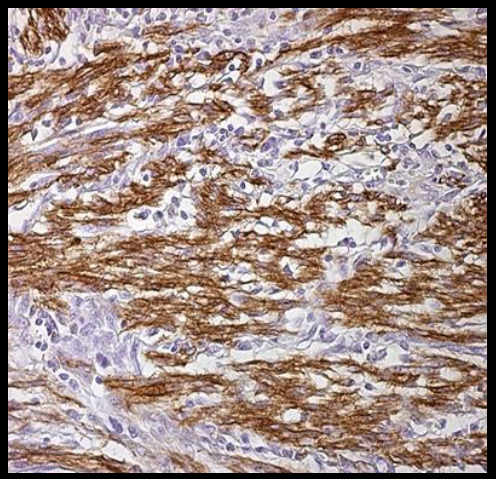


inflammatory pseudotumor or inflammatory **myofibroblastic** tumor

cellular fusiform prolifération with variable degrees of atypy

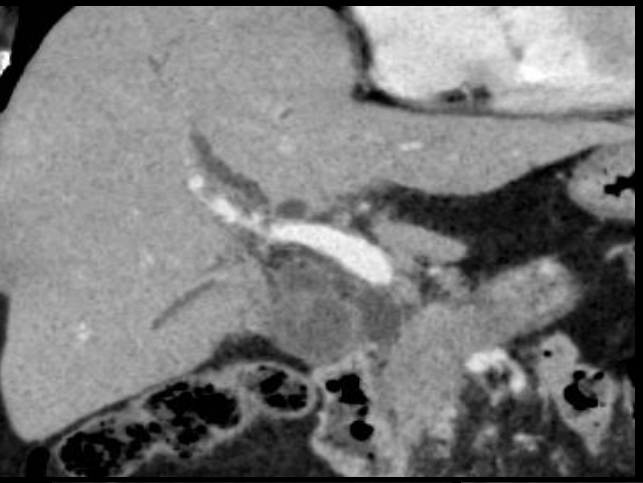
lymphoplasmocytic infiltration

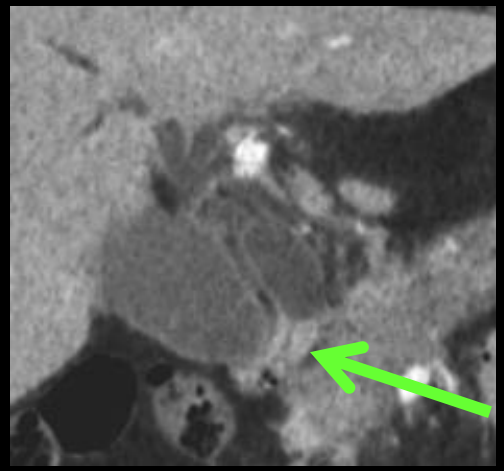
myxoid stroma

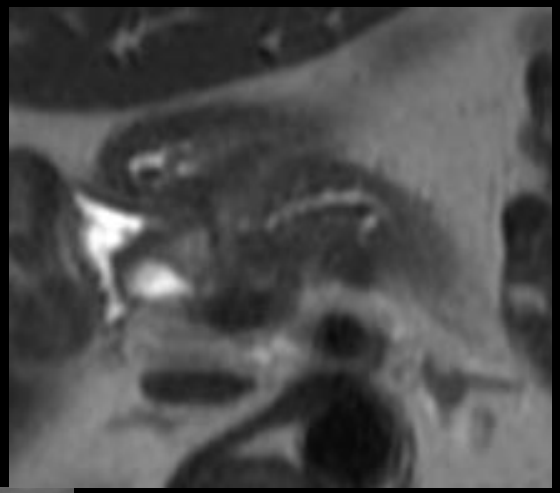


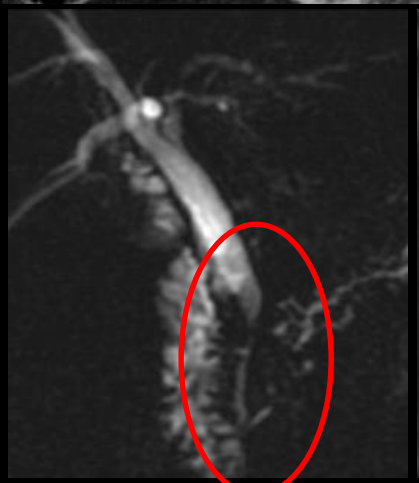
immunological stainig : smooth muscle actine spécific +++

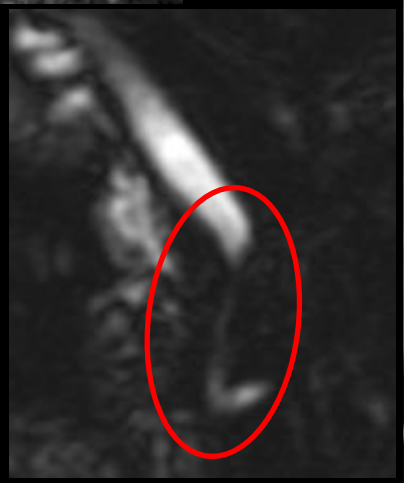
71 yo woman , ictèrus , seric bilirubin :180 mg/L.

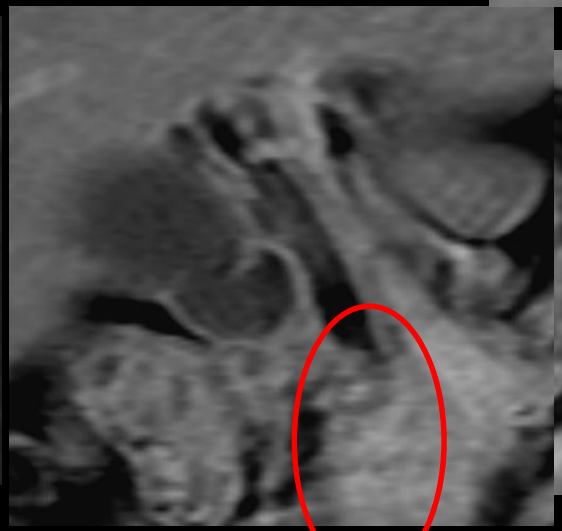


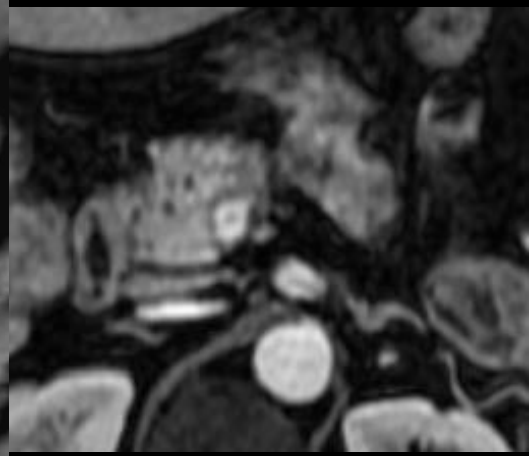






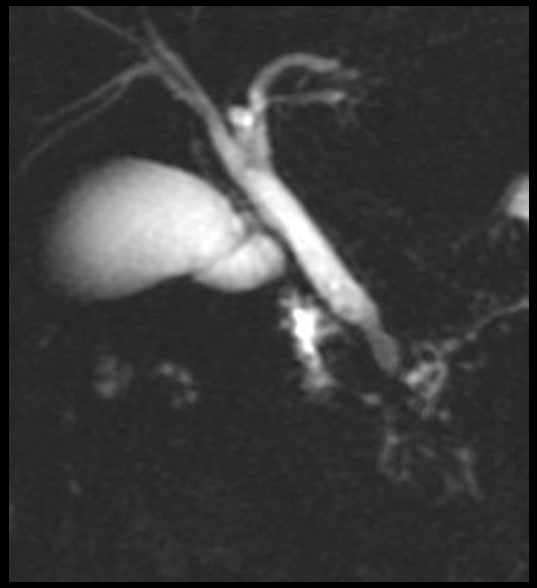


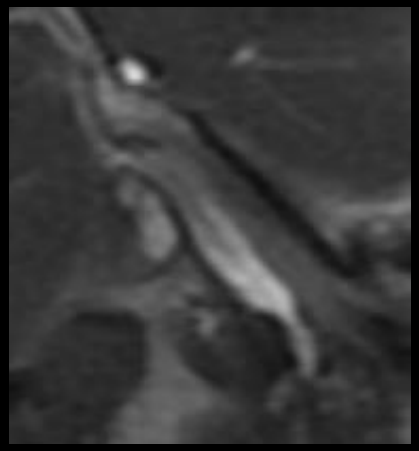




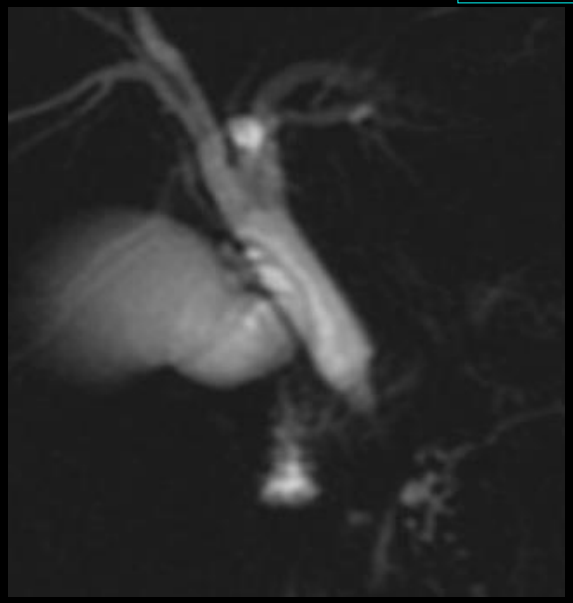
Fluctuating evolution of cholestasis and clinical jaundice

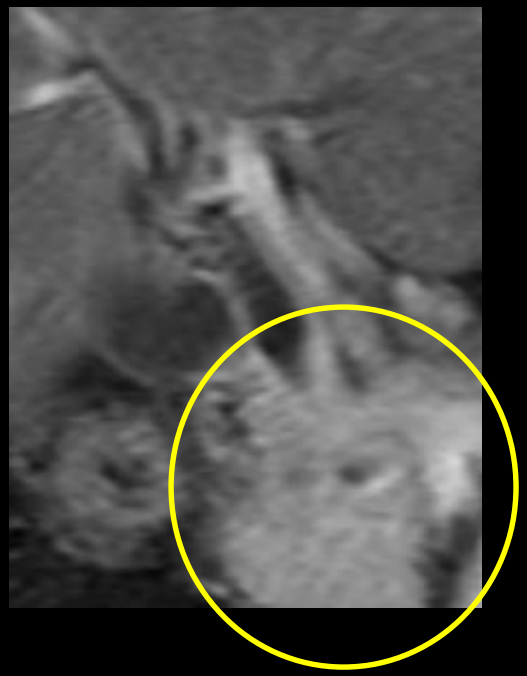
Follow up 3 months

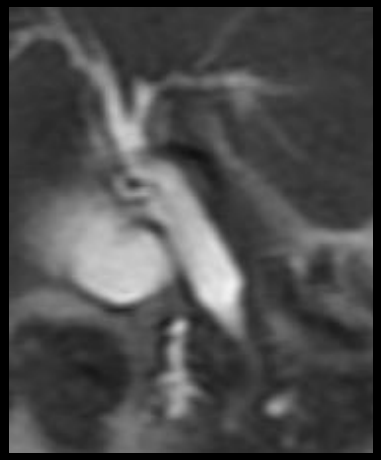




Follow up 6 months







intervention (Whipple)

inflammatory pancreato-cholangitis (fibro-hyaline transformation and lymphoplasmocytic infiltration)

Au total

Inflammatory pancreatobiliary "tumor-like" lesions are a challenge for radiologist and surgeons

It is often imposible to get histological data despite progress of endoscopic and radiologic guided biopsies and decisions must be based on MDCT and MR images

Biology can contribute to diagnosis when Ig G4 are elevated but this is quite rare in west europa

Clinicians have to be very attentive to atypies in clinical or biological evolution

It is often wise to wait some weeks before surgery (3 months for example) in equivocal cases and a corticosteroid test can be useful to avoid unnecessary mutilating surgery .