

Cholangite sclérosante primitive diagnostic et prise en charge

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Rabat

FMC SMMAD 2018

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Objectifs pédagogiques

- Epidémiologie
- Ethiopathogénie
- Histoire naturelle
- Présentations cliniques
- Moyens diagnostiques
- Traitement
 - Médical
 - Endoscopique
 - TH
- surveillance

Incidence/Prévalence

- Europe du nord : 0.5 - 1.3 /100 000 /an
- Amérique du nord : 3.85 - 16.2 / 100,000/an
- Espagne, Singapore Japan : 0.022, 0.13 ,
0.095 / 10,000

Prévalence CSP si RCH

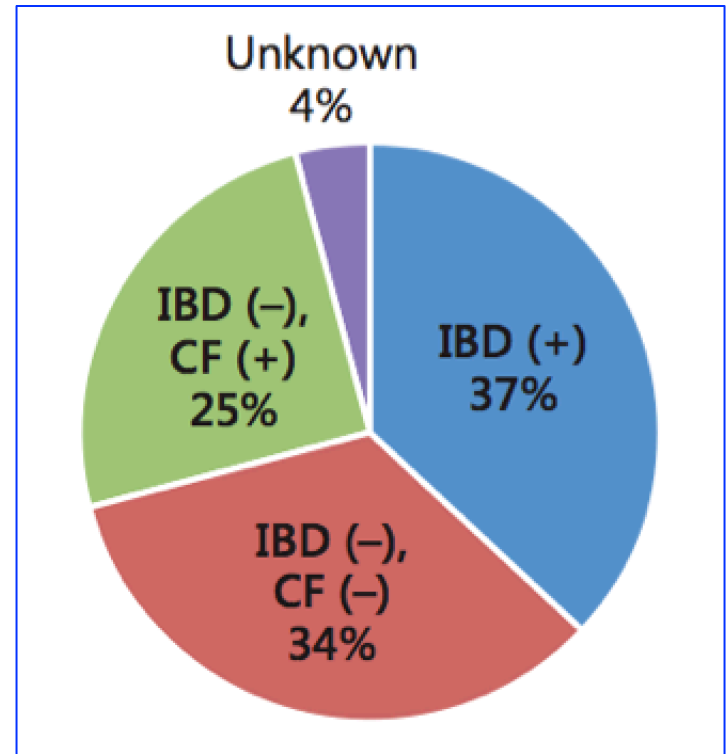
Author	Year	Country	Number of patients	PSC %
Aitola ⁶⁰	1994	Finland	534	2%
Broome ⁶¹	1994	Sweden	1274	2.3%
Lupinetti ⁶³	1980	USA	202	1%
Olsson ⁶⁴	1991	Sweden	1500	3.7%
Rasmussen ⁶⁵	1992	Denmark	305	3.6%
Schrumpf ⁶⁶	1982	Norway	336	<u>5.4%</u>
Shepherd ⁶⁷	1983	UK	681	2.4%
Hashimoto ⁶⁸	1993	Japan	163	3.1%
Bernstein ⁶⁹	2001	Canada	4454	Men: 3% Women: 1%
Tobias ⁷¹	1983	South Africa	250	3.2%
Wewer ⁷²	1991	Denmark	396	<u>0.75%</u>

Facteurs de Risque de CSP si MICI résultats du registre suisse

- 2744 patients [1188 RCH 1556 Crohn)
- 57 avaient une CSP (48 RCH et 9 CROHN).
- Prévalence **4.04 vs. 0.58%, P<0.001**
- Facteurs de risque
 - Sexe masculin [OR 2.771, P=0.022],
 - Pancolite (OR 2.855, P=0.011)
 - Non fumeur (OR 9.253, P=0.030),
 - ATCD appendicectomie (OR 4.114, P=0.019)

Prévalence de RCH si CSP

Pays	Prévalence
France	60 %
Espagne	44 %
Turquie	43-63 %
Iran	62 %
Inde	50 %
Japon	34-37 %



TH Karlsen, Journal of Hepatology 2017

Iatsushi T, nflamm Intest Dis 2016

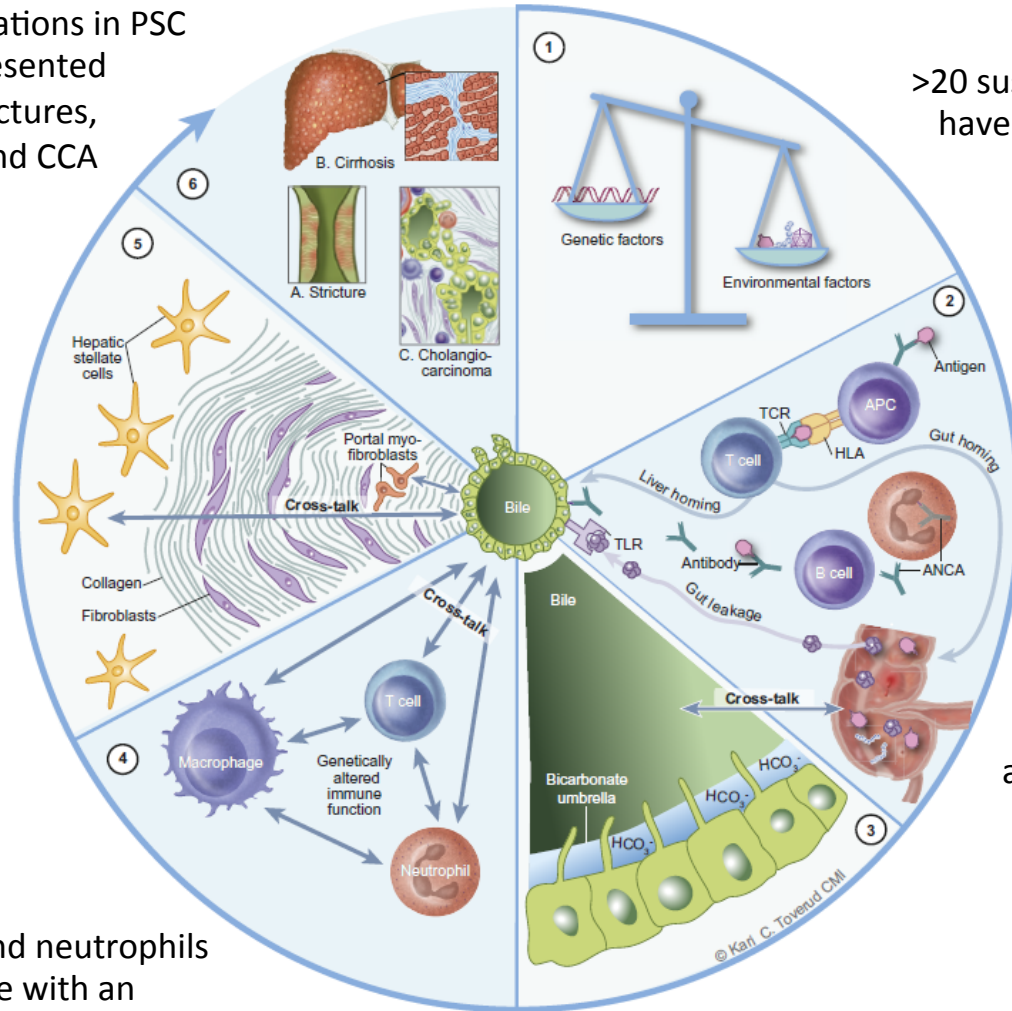
physiopathologie



Liver-related complications in PSC are mainly represented by bile duct strictures, liver cirrhosis and CCA

Chronic injury + common fibrotic mechanisms involving hepatic stellate cells and portal myofibroblasts in an undefined cross-talk with cholangiocytes

T cells, macrophages and neutrophils are likely to engage with an activated cholangiocyte phenotype

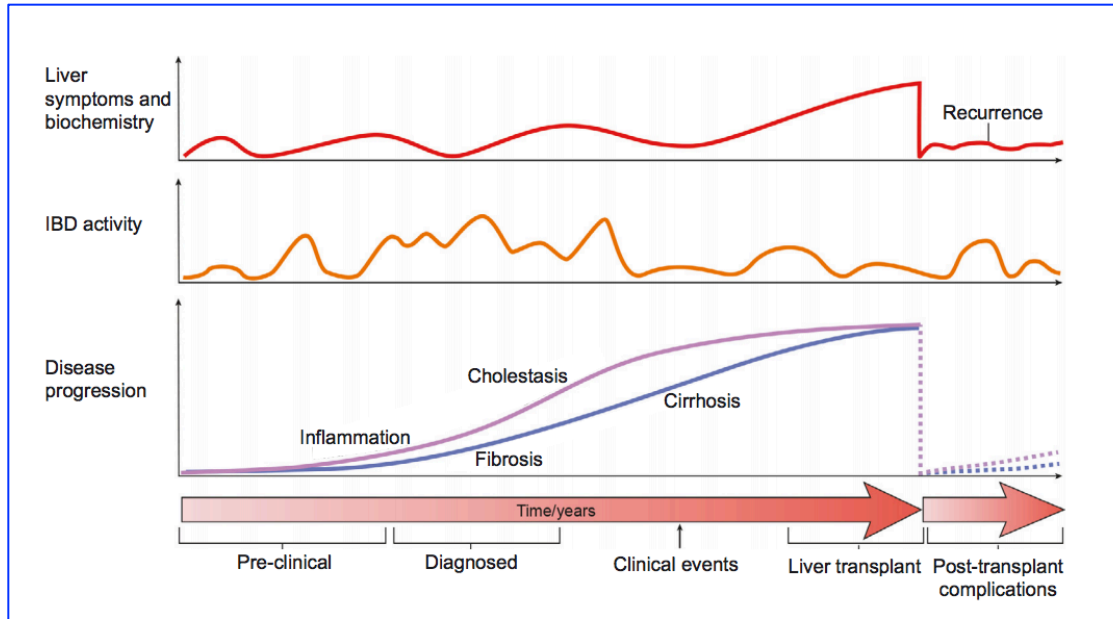


>20 susceptibility genes have been identified

Role of gut-derived antigens remains unclear

Primary or secondary disturbances in bile homeostasis are thought to contribute to PSC

CSP : Histoire naturelle et causes de mortalité

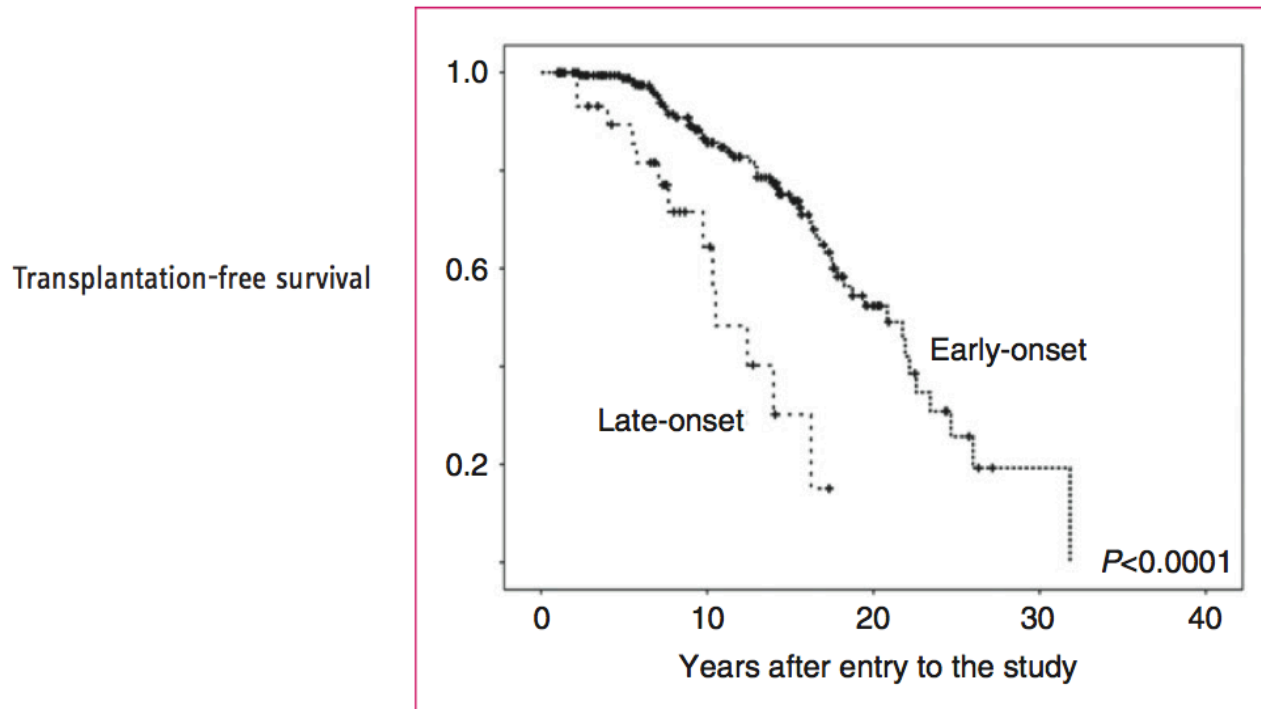


Causes de mortalité

- CCA (32%)
- IHC (15%)
- Complications de la TH (9%)
- CCR (8%)

Impact of age at diagnosis on disease progression in patients with primary sclerosing cholangitis

Christian Rupp^{1,2}, Alexander Rössler¹, Taotao Zhou¹, Conrad Rauber¹,



Patients with later age at diagnosis increased risk for progressive liver failure and biliary malignancies

Patients with large-duct primary sclerosing cholangitis and Crohn's disease have a better outcome than those with ulcerative colitis, or without IBD

J. Fevery*, W. Van Steenberghe*, J. Van Pelt*, W. Laleman*, I. Hoffman†, K. Geboes‡, S. Vermeire§ & F. Nevens*

Conclusions

The prevalence of PSC with concomitant Crohn's disease is relatively rare, but the outcome is more benign than PSC with UC or without IBD. Approximately one-fourth has small-duct PSC. In large-duct PSC/CD, liver disease is less aggressive and the outcome is much better. The outcome of PSC patients with UC resembled that of PSC without IBD.

Aliment Pharmacol Ther 2016; 43: 612-620

Présentation typique

- Homme de 30- 40 ans
- Suivi pour MICI (RCH)
- cholestase +/- cytolyse

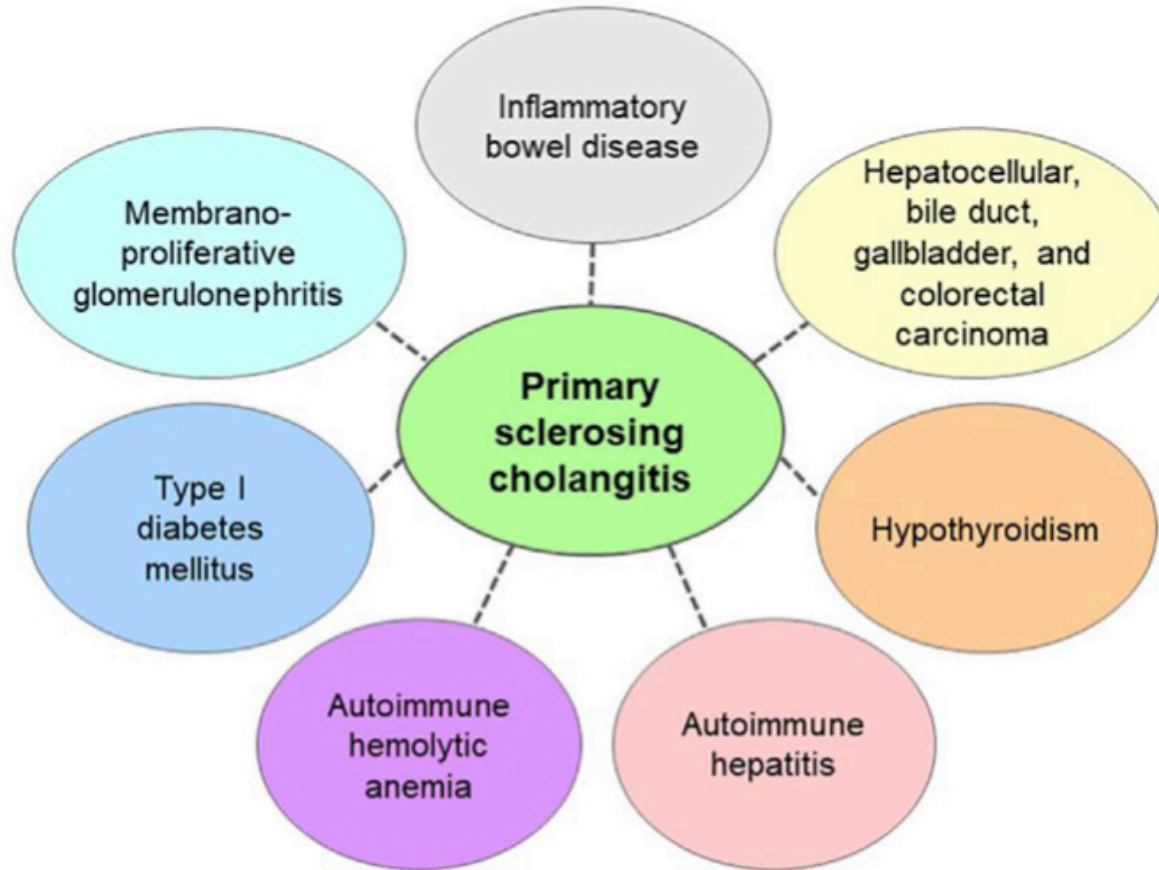
Particularités des CSP associées à une MICI

- Survenue à un âge plus jeune
- Formes de passage plus fréquentes (CSP-HAI)
- Pas de parallélisme sévérité CSP/RCH.
- Colectomie: pas de modification de la CSP

Autres modes de découverte

- Découverte fortuite de cholestase
- Prurit ,ictère ,asthénie
- angiocholite
- Cirrhose décompensée
- Cholangiocarcinome
- 25 % des cas : pathologies auto-immune associée

Pathologies pouvant être associées à la CSP



RCH avec CSP : Phénotype particulier

- Souvent pas d'atteinte rectale : 18-56 % vs 10 %
- Pancolite dans 60 % vs 50 %
- Atteinte colon droit fréquente
- iléite de reflux : 20–51%
- Fréquence des formes indéterminées
- Forme souvent bénigne
- Risque du cancer du colon élevé (10-15%)
- Cancer souvent du colon droit

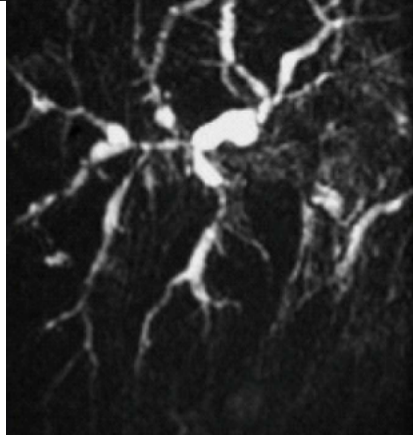
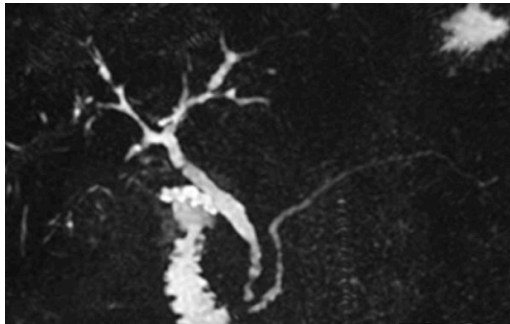
Moyens diagnostiques



- IRM +++
- CPRE
 - si dic douteux après IRM+PBF
 - Si biopsies ou cytologie nécessaire
 - si Tx endoscopique indiqué

Recommendations on the Use of Magnetic Resonance Imaging in PSC-A Position Statement From the International PSC Study Group

MRCP should be the first diagnostic imaging modality in patients with suspected PSC. (1A)



If the initial MRI/MRCP at the time of establishing a PSC diagnosis has been performed without contrast media, a second MRI/MRCP including contrast media should be considered within 6 months of the diagnosis because of the higher risk of prevalent CCA when PSC is detected. (1C)

Prevalence of Sclerosing Cholangitis Detected by Magnetic Resonance Cholangiography in Patients With Long-term Inflammatory Bowel Disease

- ◆ 222 RCH et 100 Crohn surveillance à long terme (20 ans)
- ◆ 24 patients (7.5%) : lésions évoquant une CSP
- ◆ seulement 7 patients (2.2%) connu porteur de CSP
- ◆ Avec l'IRM dans le suivi ; on détecte 3 x plus de CSP asymptomatique
- ◆ 65 % des patients avaient une CSP sans anomalies biochimiques

Anomalies biologiques associées

- NFS
- Transaminases GGT Bili PA
- EPP
- Ig G4
- Ac anti mitochondries
- Ac anti muscles lisses

Serologic finding	Prevalence
Hypergammaglobulinemia	30%
Increased serum immunoglobulin M (IgM) levels	40–50%
Atypical perinuclear antineutrophil cytoplasmic antibodies (P-ANCA)	30–80%
Human leukocyte antigen DRw52a	0–100% in various reports
Increased immunoglobulin G4 (IgG4)	9%

CSP et Ig G4 positif

CSP +Augmentation Ig 4
fréquence : 9 %

Immunohisto : 23 %

CSP mauvais Pic

TH précoce

Iléite associée

Colectomie fréquente

Diagnostic différentiel entre CSP et cholangite Ig G4

Feature	Primary sclerosing cholangitis	IgG4 cholangiopathy or autoimmune cholangiopathy
Age	Young to middle age	Older
Obstructive jaundice	Marked	Less severe
Biliary strictures	Band-like strictures with beaded and pruned tree appearance	Segmental strictures (distal CBD)
Associated autoimmune pancreatitis	No	Yes
IgG4-related diseases	No	Yes
IBD association	Yes	Rarely associated with type 2 AIP
Risk of cholangiocarcinoma	Yes	Rare (with limited data), can mimic

$Ig\ G4 > 4 \times N$
 $IgG4/IgG1 > 0.24$
 PCR pour mesure de ce rapport

Indications de la PBF

- Doute de CSP des petits canaux avec IRM normale
- Ig G4 élevée
- HAI associée

Fibroscan dans la CSP

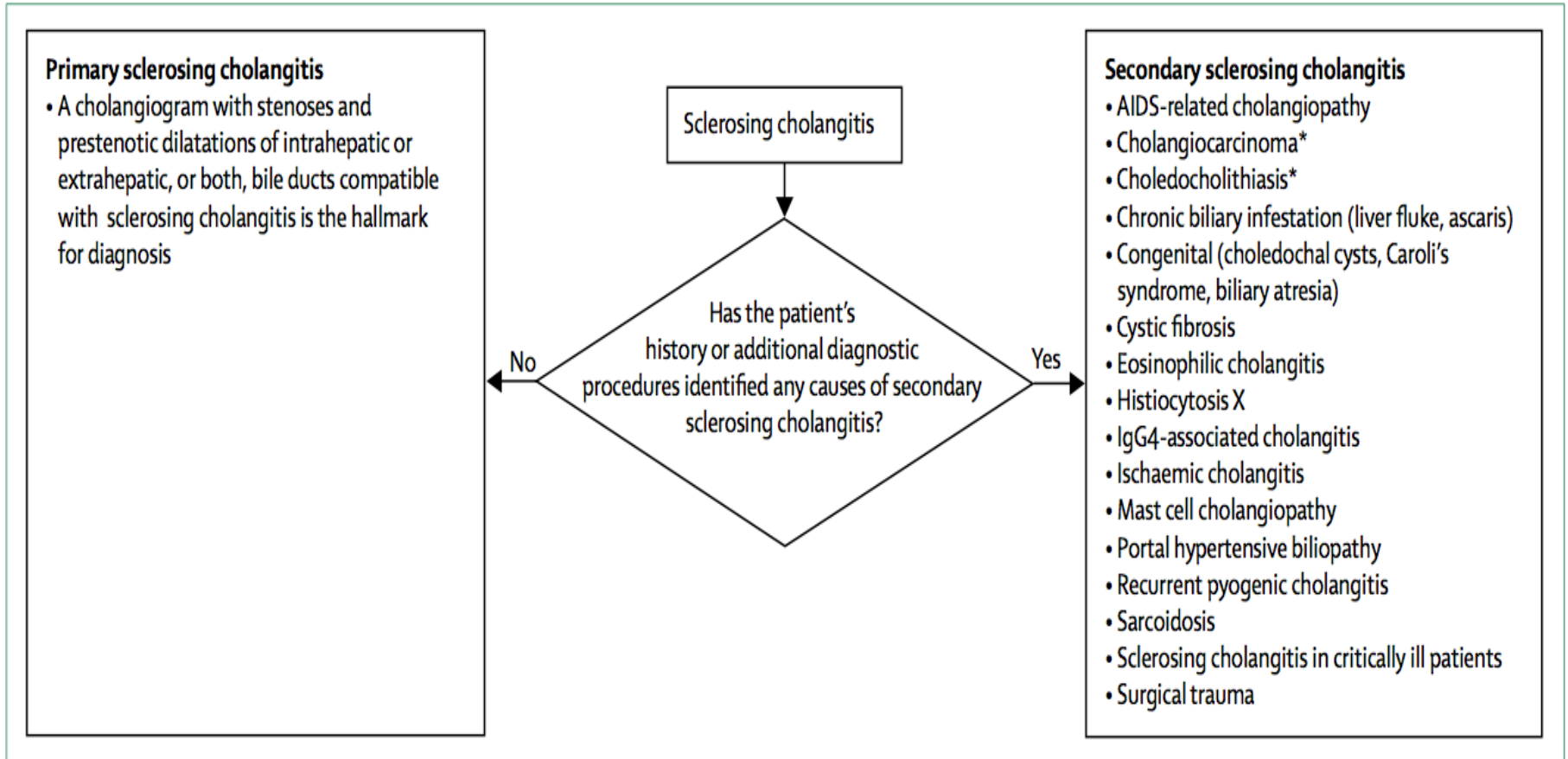
Stage	n	Cutoff (kPa)	AUROC
All patients (n = 66)			
≥F1	60	7.4	0.71 (0.69)
≥F2	32	8.6	0.84 (0.79)
≥F3	15	9.6	0.93 (0.90)
F4	9	14.4	0.95 (0.91)

Corpechot C et al Gastroenterology 2014

Stage	n	AUROC	95% CI	Cutoff (kPa)	SE	95% CI	SP	95% CI
All patients	62							
≥ F1	57	0.63	0.44 to 0.82	6.6	64.9	52.5 to 77.3	60	17.1 to 100
≥ F2	27	0.91	0.82 to 0.99	8.8	81.5	66.8 to 96.1	88.6	78 to 99.1
≥ F3	20	0.95	0.89 to 1.0	9.6	90	76.9 to 100	90.5	81.6 to 99.4
F4	16	0.978	0.93–1.0	14.4	68.8	46 to 91.5	97.8	93.6 to 100

Ehlken H et al Plos One 2016

Diagnostic différentiel



CSP :Critères diagnostiques

- Cholestase sans causes évidentes
- Aspect typique en IRM
- Pas de cholangites secondaires

Diagnosing PSC	Diagnostic approach
Classical large-duct PSC	Cholestatic serum liver tests (elevated ALP) GGT) and/or cholestatic symptoms (pruritus, jaundice, cholangitis), MRC, diagnostic ERC (occasionally)
Small-duct PSC (MRC/ERC normal)	Liver biopsy, IBD confirmed
PSC high IgG4	Serum IgG4, IgG4 staining of relevant biopsy
PSC with features of AIH (PSC-AIH overlap)	ANA, anti-SMA, anti-LKM, anti-SLA/LP, IgG, liver biopsy

Traitement

Traitement du Prurit

Recommendations

1. Local skin treatment should be performed with emollients and/or antihistamines in patients with PSC and mild pruritus, to reduce symptoms. (Conditional recommendation, very low quality of evidence) (123,124)
2. Bile acid sequestrants such as cholestyramine should be taken (prescribed) in patients with PSC and moderate pruritus to reduce symptoms. Second-line treatment such as rifampin and naltrexone can be considered if cholestyramine is ineffective or poorly tolerated. (Conditional recommendation, very low quality of evidence) (124–126)

Chercher ostéoporose et déficit en vit liposoluble

Patients with PSC should undergo bone mineral density (BMD) screening at diagnosis with dual energy X-ray absorption at diagnosis and repeated at 2- to 4-year intervals. (Conditional recommendation, moderate quality of evidence) (128)

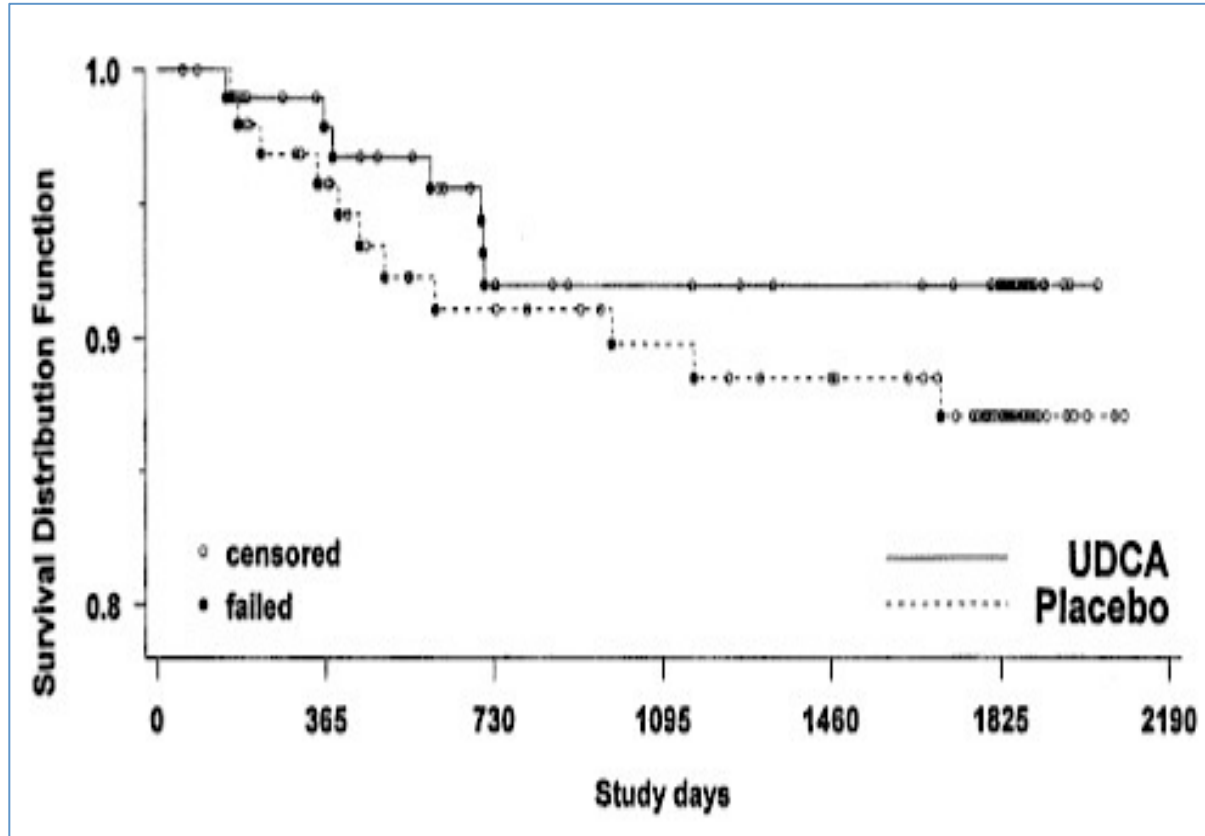
Patients with advanced liver disease should be screened and monitored for fat-soluble vitamin deficiencies. (Conditional recommendation, moderate quality of evidence) (129)

15. In patients with hepatic osteopenia, we suggest the use of calcium 1.0-1.5 g and vitamin D 1,000 IU daily for therapy (2C).

16. In patients with hepatic osteoporosis, we suggest the use of bisphosphonate therapy in addition to calcium and vitamin D supplementation (2C).

AUDC et CSP

17-23 mg/kg/j

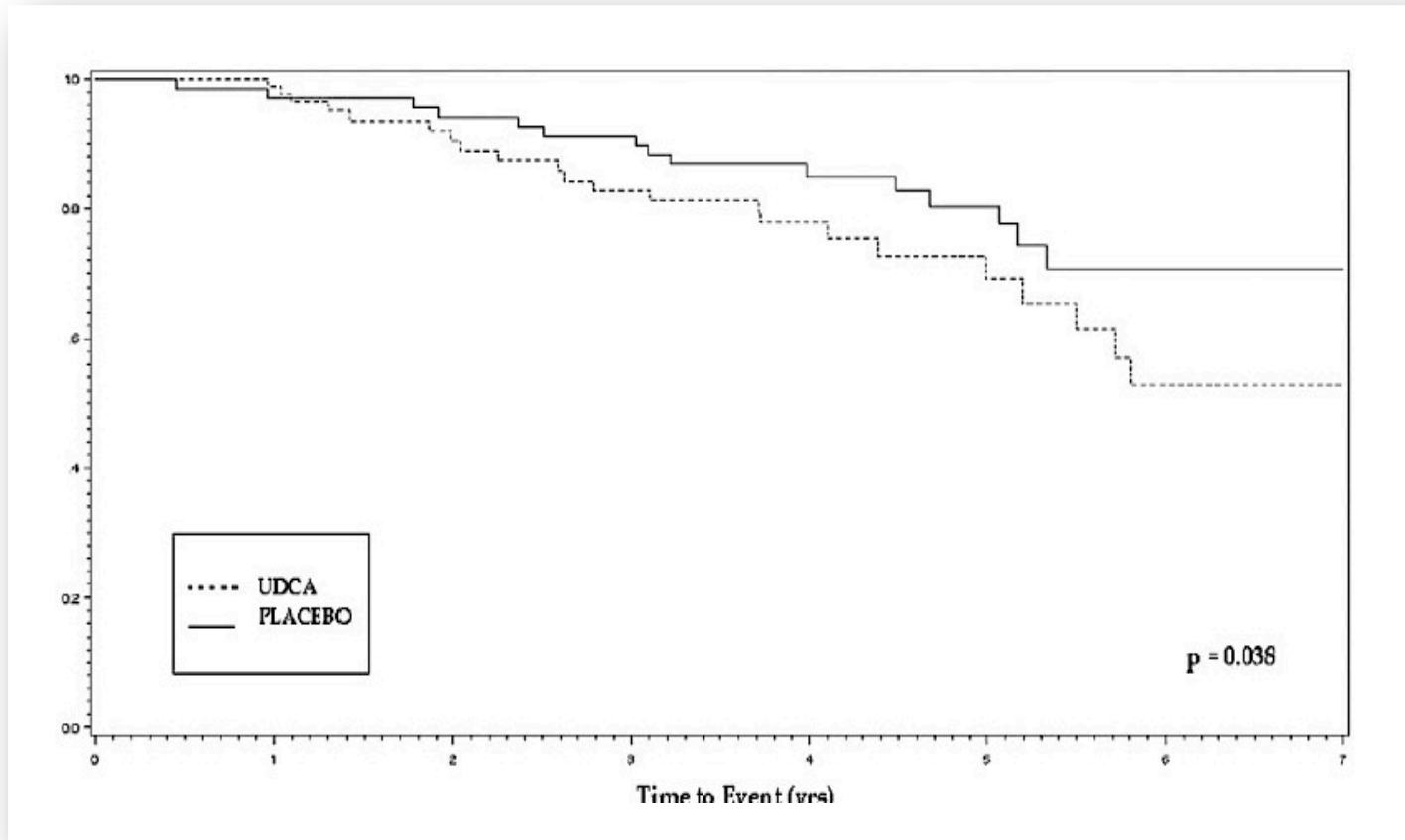


RTC avec 219 patients
tendance à améliorer la survie

AUDC forte dose

Effet délétère

AUDC 28-30 mg/kg/j vs. Placebo



URSO forte dose

- Risque plus élevé de
 - Cirrhose, VO
 - cholangiocarcinome voir de CCR
 - Transplantation hépatique

Lindor KD, Hepatology 2009

Eaton JE, Am J Gastroenterol 2011

AUDC et CSP: que fait-on ?

Recommendations:

28. In adult patients with PSC, we recommend against the use of UDCA as medical therapy (1A).

29. In adult patients with PSC and overlap syndrome, we recommend the use of corticosteroids and other immunosuppressive agents for medical therapy (1C).

AASLD recommendations 2010

Recommendations

1. The available data base shows that UDCA (15–20 mg/d) improves serum liver tests and surrogate markers of prognosis (I/B1), but does not reveal a proven benefit on survival (III/C2). **The limited data base does not yet allow a specific recommendation for the general use of UDCA in PSC.**

EASL recommendations 2009

ACG Clinical Guideline: Primary Sclerosing Cholangitis

Keith D. Lindor, MD, FACG^{1,2}, Kris V. Kowdley, MD, FACG³ and M. Edwyn Harrison, MD²

Recommendation

1. Ursodeoxycholic acid (UDCA) in doses >28 mg/kg/day should not be used for the management of patients with PSC. (Strong recommendation and high quality of evidence) (42)

Am J Gastroenterol 2015;

Que faire en pratique ?

Acide ursodésoxycholique (AUDC) : 15-20 mg/kg/j (AMM 2012). Les posologies très fortes 28-30 mg/kg/j sont contre-indiquées

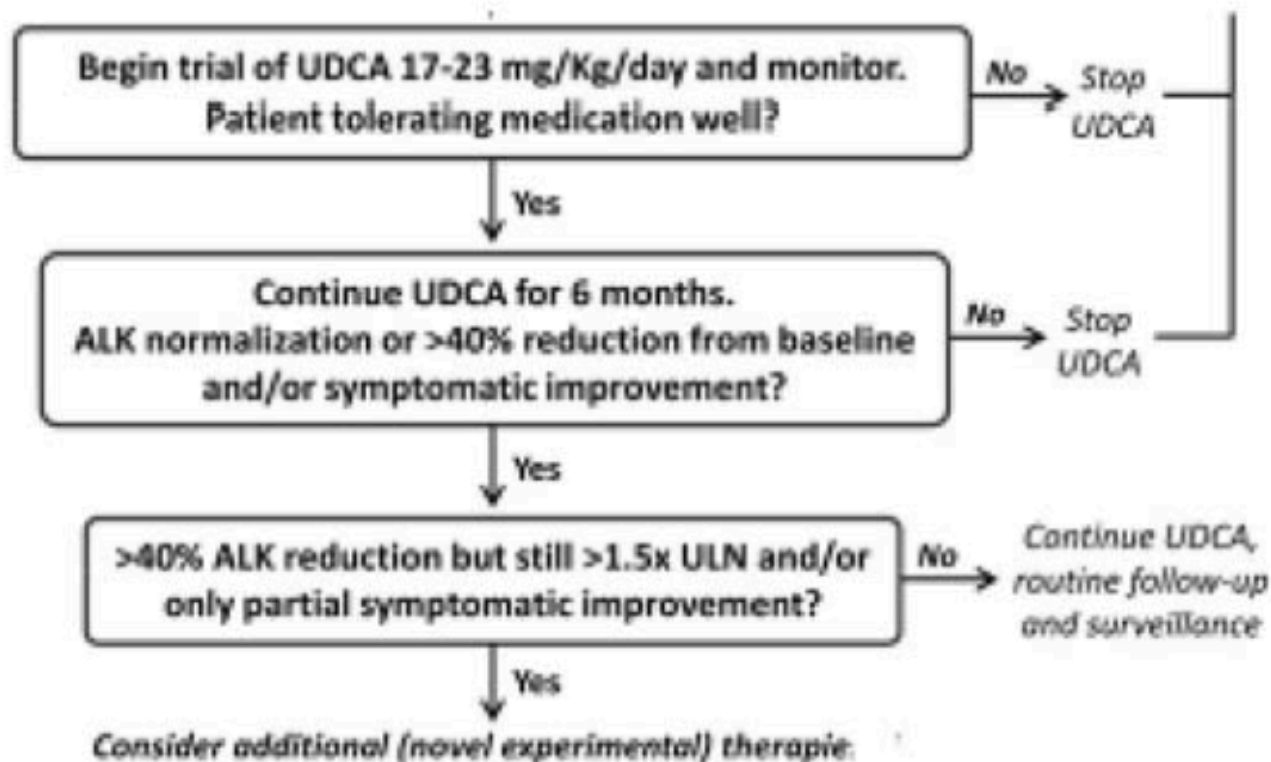
<p>Société Nationale Française de Gastro-Entérologie</p> 	2014	Olivier Chazouillères
<p>Conseil de pratique</p>		
 <p>ASSOCIATION FRANÇAISE POUR L'ETUDE DU FOIE</p>		

La plus part des experts proposent
une dose de 18-21 mg/kg

James H. Tabibian, MD, PhD, Ahmad H. Ali, MBBS, and Keith D. Lindor, MD

Gastroenterology & Hepatology Volume 14, Issue 5 May 2018

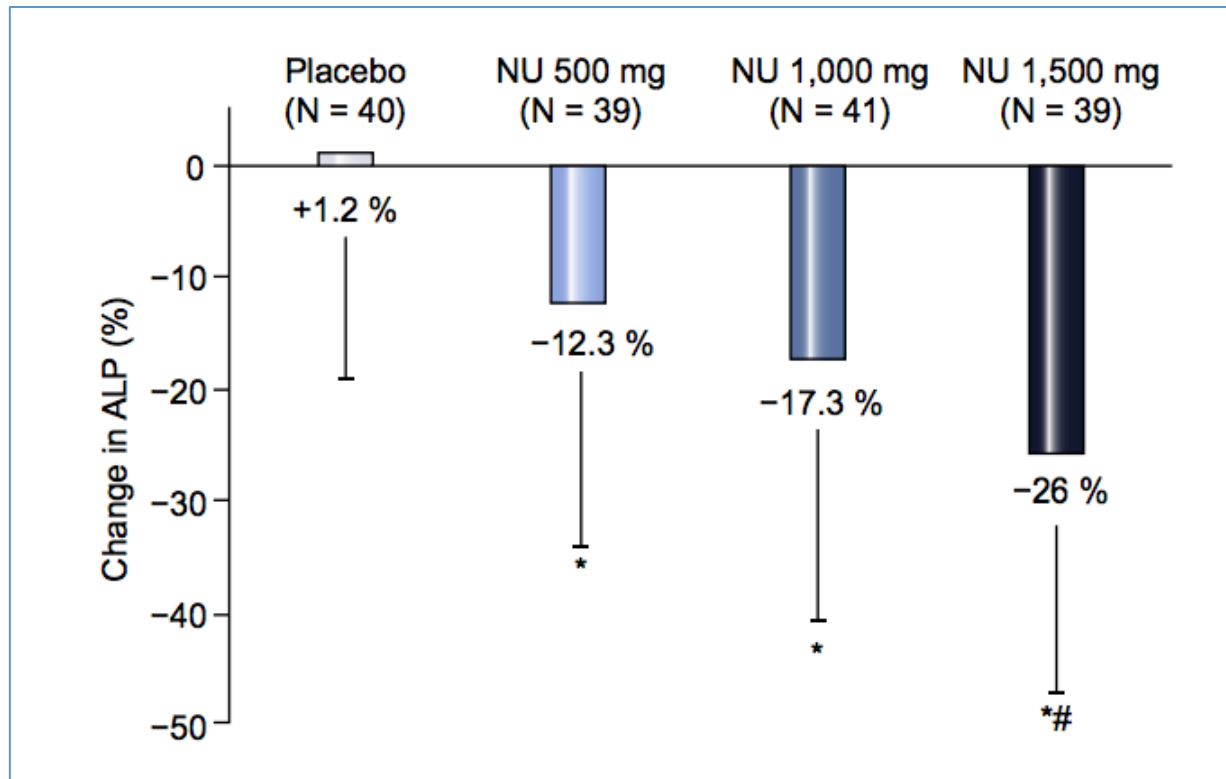
Algorithm for UDCA Use in PSC Proposed by Tabichian and Lindor*



*Hepatology 2014;60:785

***nor*Ursodeoxycholic acid improves cholestasis in primary sclerosing cholangitis**

Peter Fickert¹, Gideon M. Hirschfield², Gerald Denk³, Hanns-Ulrich Marschall⁴, Istvan Altorjay⁵,




Vancomycine dans le Tx la CSP

Agent(s)	Sample Size, n	Study Design	Summary of Main Findings
Vancomycin in pediatric patients ^{95,96,99,146,147}	19 (total of the 5 studies)	Open-label, pilot, and case series	<ul style="list-style-type: none"> • Improvement in GGT, ALT, C-reactive protein, symptoms, and cholangiographic findings
Vancomycin or metronidazole in adults ⁹⁸	8 vs 9 vs 9 vs 9 (low-dose vs high-dose vancomycin vs low-dose vs high-dose metronidazole)	Randomized, double-blind	<ul style="list-style-type: none"> • Improvement in ALP (primary endpoint) in the vancomycin groups • Decrease in bilirubin in the low-dose metronidazole group and trend toward significant decrease in the low-dose vancomycin group ($P=.06$) • Decrease in Mayo PSC risk score in the low-dose vancomycin group and low-dose metronidazole group
Vancomycin ⁹⁷	18 vs 11 (drug vs placebo)	Triple-blind, randomized, placebo-controlled	<ul style="list-style-type: none"> • Improvement in ALP, GGT, and symptoms

Damman JL, Rodriguez EA, Ali AA, et al. Review article: the evidence that vancomycin is a therapeutic option for primary sclerosing cholangitis. *Aliment Pharmacol Ther.* 2018;47:886-895.

Editorial: vancomycin – a promising option for the treatment of primary sclerosing cholangitis?

- AP&T Alimentary Pharmacology & Therapeutics - 2018

R. W. Chapman^{1,2} 

¹Nuffield Department of Medicine, Oxford University, Oxford, UK

Statine et CSP

- Swedish, register-based cohort study of PSC patients with IBD (n=2914) diagnosed between 2005 and 2016
- Cox regression used to analyze associations between different drugs and: death, LTx, CCA, and bleeding oesophageal varices
- Statin exposure: 13.9% (n=404)

Hazard ratios (95% CIs)

Drug	All-cause mortality (n=2914)	Mortality and liver transplantation (n=2794)	Adverse liver events* (n=2740)
UDCA	1.04 (0.87, 1.25)	1.34 (1.12, 1.62)	3.10 (2.36, 4.07)
Statins	0.68 (0.54, 0.88)	0.50 (0.28, 0.66)	0.53 (0.36, 0.80)
NSAIDs	0.86 (0.72, 1.02)	0.82 (0.68, 0.99)	0.87 (0.68, 1.62)
ASA	0.99 (0.80, 1.21)	2.16 (1.72, 2.70)	3.35 (2.46, 4.55)
Antibiotics	1.70 (1.27, 2.29)	2.27 (1.70, 3.05)	3.03 (2.09, 4.41)
Antimycotics	2.78 (2.24, 3.44)	3.13 (2.48, 3.94)	1.74 (1.20, 2.51)
Metronidazole	1.27 (1.06, 1.53)	1.20 (0.99, 1.47)	1.58 (1.23, 2.03)
AZA/mercaptapurines	0.66 (0.52, 0.84)	0.65 (0.50, 0.83)	0.80 (0.60, 1.08)
Steroids	1.94 (1.60, 2.34)	2.14 (1.75, 2.60)	1.28 (1.00, 1.65)

Conclusions: statin use associated with decreased risk of death and LTx in PSC

*Liver-related death, LTx, CCA or variceal bleeding

Stokkeland K, et al. ILC 2018, #PS-128

fibrates + acide ursodeoxycholique expérience Franco-espagnole

- 20 Patients en réponse biochimique incomplète à Urso (PA > 1.5 N)
- Elastometrie : 11kPa (\geq F3)
- fibrates (fenofibrate 200mg/day or bezafibrate 400mg/day) / 6 mois
- Résultats :
 - Diminution du prurit
 - Réduction des PA de 41 %
 - L'arrêt des fibrates : augmentation des PA
 - Fibrates bien toléré
 - Augmentation de l'élasticité



Quand Tx endoscopique

Recommendations		
Traitement Endoscopique avec prelevement sur les stenoses suspectes est suggéré chez les patients symptomatiques qui profiteront de ce Tx endoscopique	elevé	faible

CSP : Quel traitement endoscopique et chez qui ?

4. ESGE/EASL suggest that a dominant stricture at ERCP should be defined as a stenosis with a diameter of ≤ 1.5 mm in the common bile duct and/or ≤ 1.0 mm in an hepatic duct within 2 cm of the main hepatic confluence.

Weak recommendation, low quality evidence.

8. ESGE/EASL suggest that the choice between stenting and balloon dilation should be left to the endoscopist's discretion.

Weak recommendation, low quality evidence.

13. ESGE/EASL suggest that stents used for treating dominant stricture should be removed 1-2 weeks following insertion.

Weak recommendation, low quality evidence.

Résultats du traitement endoscopique

- 171 PSC suivi à long terme (moy de 20 ans)
 - Traitement endoscopique répété
 - Survie sans TH après la première endoscopie
 - à 5 ans : 81%
 - à 10 ans : 52%
- 6 % des sténoses dominantes étaient des CCA



dilation vs. dilation + prothese

- Etudes retrospectives :
 - Amelioration de la Survie sans TH avec dilatation
 - Complications plus fréquente avec prothese
- Etude DILSTENT dilation vs prothèse a été arrêtée
 - Pas de difference : echec initial et recidive
 - Plus de complications pancreatite et angiocholite , (42%) vs. (10%)

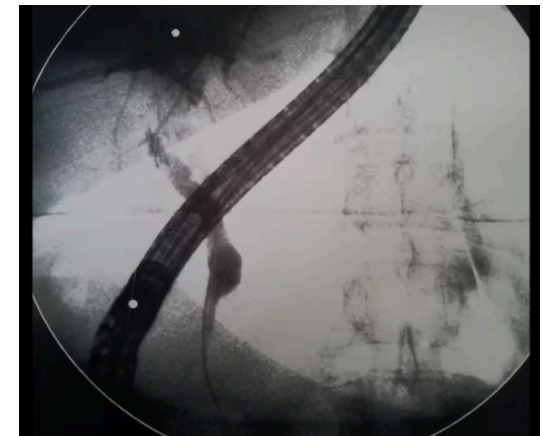
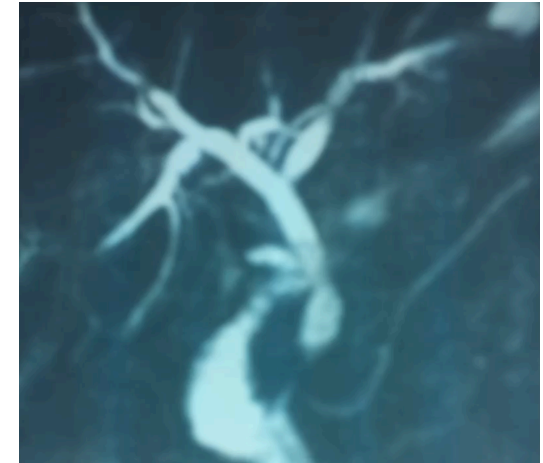
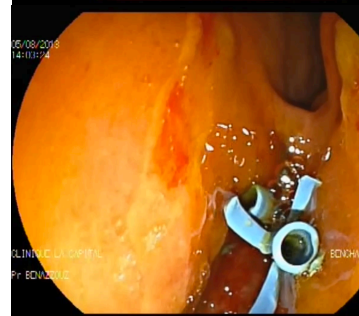
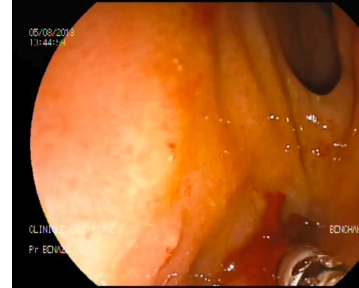
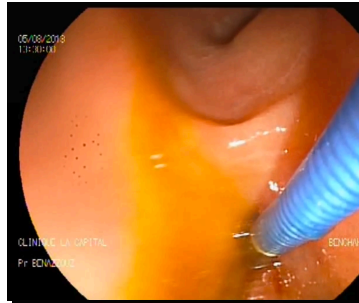
*≤2 weeks

1. Ponsioen C, et al. J Hepatol 2017;66:S1-2;

ESGE/EASL CPG Endoscopy in PSC. J Hepatol 2017;66:1265-81

Cas clinique

- BN ,55 ans
- ATCD d'angiocholite
- Pas de trouble de transit
- Consulte pour subictère
- Biologie : cytolyse et cholestase
- Echo : DVBIH et VBP
- IRM : 2 sténoses avec 2 petits calculs VBP
- Ig 4 sérique : N
- Tx endoscopique : SE + dilatation et extraction des calculs
- 8 mois :Récidive de la sténose :Stent 10Fr
- 13mois plus tar: récidive : 2 stents 7Fr
- Evolution à 5 ans : bonne (après 5 CPRE)
- Sous Urso
- colo initiale et à 5 ans : RAS



Indications de la TH

- Ictère prolongé avec bilirubinémie > 100 µmol/l
- Episodes répétés et sévères d'angiocholites
- Cirrhose décompensée (Child-Pugh > 9 ou MELD > 15).
- Cholangiocarcinome hilair < 3 cm sans atteinte ganglionnaire et inclus dans un protocole très strict de radio-chimiothérapie pré-TH

LIVER TRANSPLANTATION

Recommendations

1. Liver transplantation, when possible, is recommended over medical therapy or surgical drainage in PSC patients with decompensated cirrhosis, to prolong survival. (Strong recommendation, moderate quality of evidence) (94–96)
2. Patients should be referred for liver transplantation when their Model for End-Stage Liver Disease (MELD) score exceeds 14. (Conditional recommendation, moderate quality of evidence) (97)

TH pour CSP

évolution à long terme

- 45 TH pour CSP
- 40 % Récidive de la CSP (recul moyen 30 mois)
 - 24.5% à 3 ans
 - 39.3% à 5 ans
 - 45.8% à 6 ans
- **Survie du greffon**
 - 56.3% à 5 ans après récidence
 - 21,9 % à 10 ans après récidence

CSP et risque de cholangio-carcinome(CCA) et Cancer colorectal

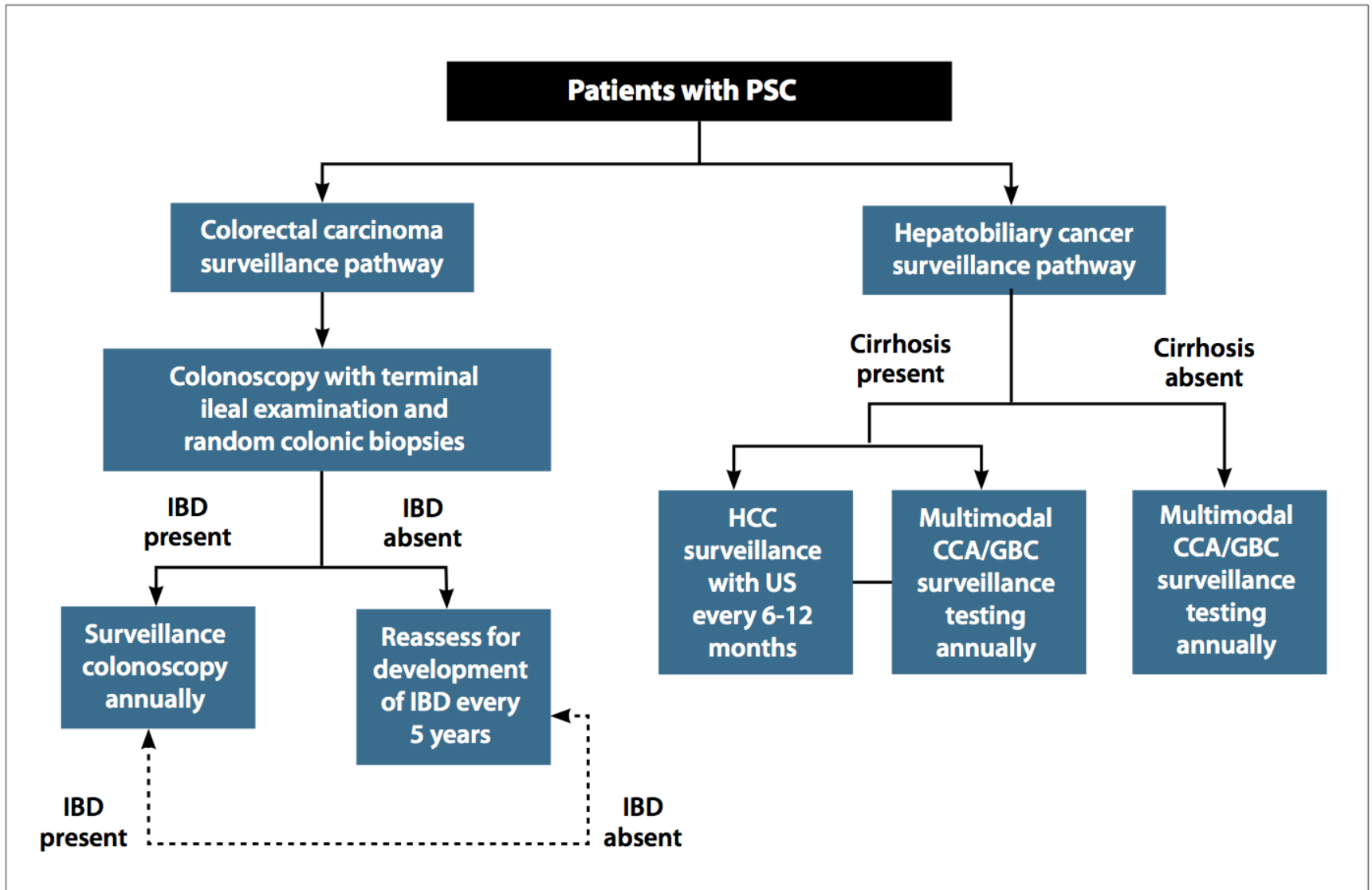
- Prévalence de néoplasie si CSP 13–14%
 - CCA (11%)
 - CCR (9%).
- Le risque de CC augmente si
 - Ancienneté de la RCH >15 ans
 - Pancolite
 - indépendamment de la sévérité de la maladie
- Le risque de CCR est
 - multiplié par 5 si CSP
 - multiplié par 9 si MICI avec CSP

RCH/CSP :AUDC et prévention du CCR

Study type	Is UDCA chemopreventive?
RCT	Yes
Retrospective	No
RCT	No
RCT	No-high dose UDCA
Prospective	No-short term; yes-long term

Méta-analyse 177 CCR/763 MICI/CSP
pas d'effet préventif : OR = 0.81, 95% CI: 0.41-1.61.
Effet préventif contre néoplasie avancé

Surveillance



surveillance Endoscopique si CSP/RCH



Recommendations	Strength of recommendation	Quality of evidence
Ileocolonoscopie de dépistage au moment du Dic de la CSP	élevé	élevé
Si MICI coloileoscopie annuelle	élevé	faible
Si pas de MICI coloileo à 5 ans ou chaque fois qu'il y a des symptômes évoquant MICI	faible	faible
Ileocolonoscopie avec biopsies dans les 4 quadrants au niveau du colon et de l'iléon	élevé	faible
Ileocolonoscopie avec chromoendoscopie avec biopsies dirigées si lésions dysplasiques	élevé	faible

CCA sur CSP : diagnostic

ESGE/EASL 2017

17. EASL/ESGE recommend that cholangiocarcinoma (CCA) should be suspected in any patient with worsening cholestasis, weight loss, raised serum CA19-9, and/or new or progressive dominant stricture, particularly with an associated enhancing mass lesion.

Strong recommendation, moderate quality evidence.

18. A raised serum CA19-9 may support the diagnosis of CCA, but has a poor specificity.

Weak recommendation, low quality evidence.

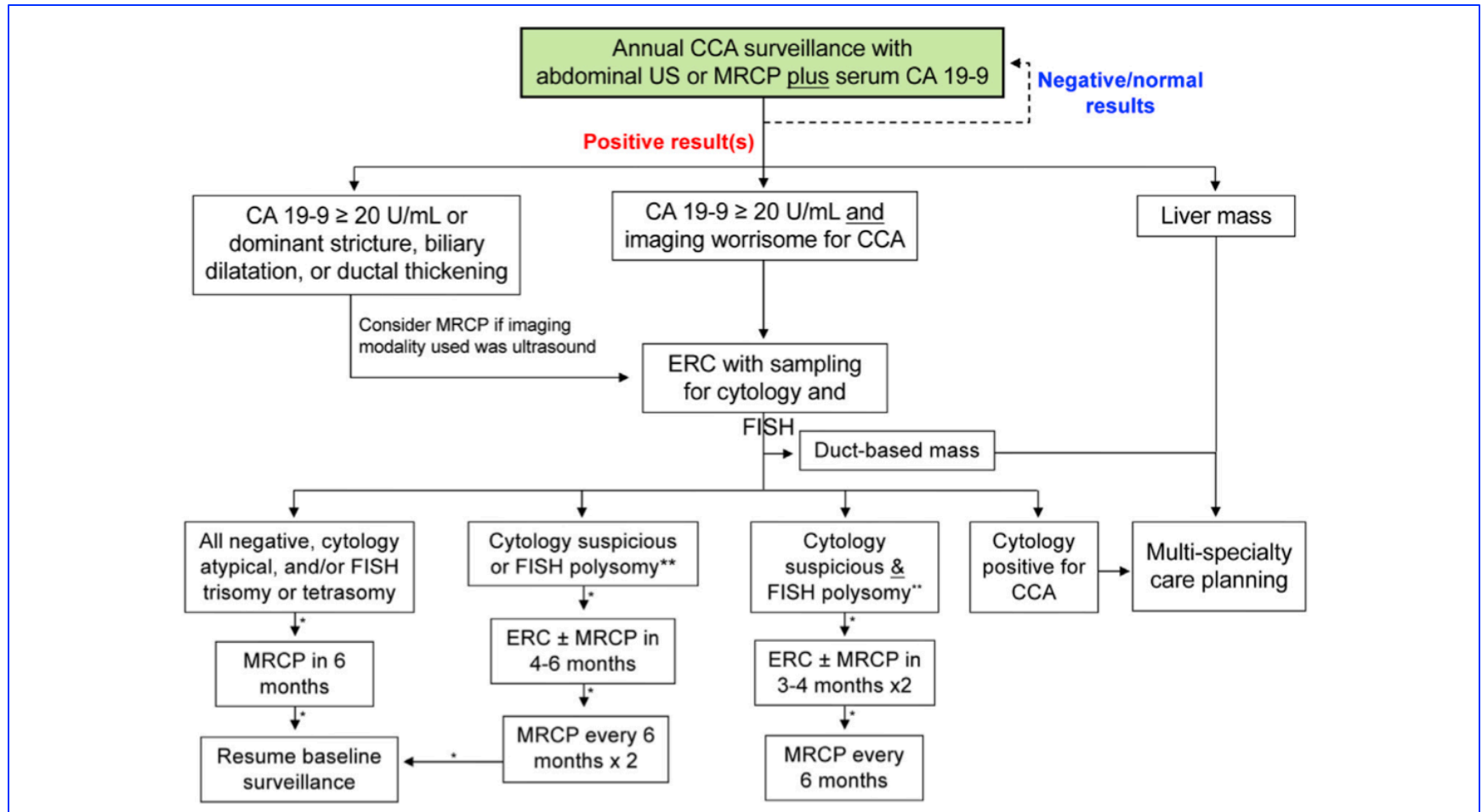
19. ESGE/EASL recommend ductal sampling (brush cytology, endobiliary biopsies) as part of the initial investigation for the diagnosis and staging of suspected CCA in patients with PSC.

Strong recommendation, high quality evidence.

IRM et dépistage de CCA

The use of MRI/MRCP to screen for biliary cancers among asymptomatic patients with PSC should be an individualized decision. There is no quality evidence supporting or refuting CCA screening. However, many experts in the field of PSC recommend regular CCA screening with MRI/MRCP. (1C)

Modalités pratique de surveillance pour CCA



En pratique comment surveiller

- Tous les 6 mois:
 - Examen clinique
 - Tests hépatiques simples, CA 19-9
- Tous les ans:
 - Imagerie du foie et des voies biliaires (échographie « experte » ou mieux IRM hépatique et biliaire) avec examen attentif de la vésicule biliaire
 - tout polype doit faire discuter une cholecystectomie dont l'indication est formelle si taille > 8 mm
 - coloscopie avec biopsies (si MICI associée) dès le diagnostic de CSP
 - Elastométrie (?)
 - Dosage sérique vitamine D
 - Tous les 4 ans: ostéodensitométrie,
 - Si Plq < 150 000 : endoscopie digestive haute.