



# Actualités en Hépatologie

## NAFLD et Alcool

*Dr Jérôme Boursier*

*XIXe Symposium D'Hépato-gastroentérologie*

*17 juin 2011*

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## NAFLD et Alcool

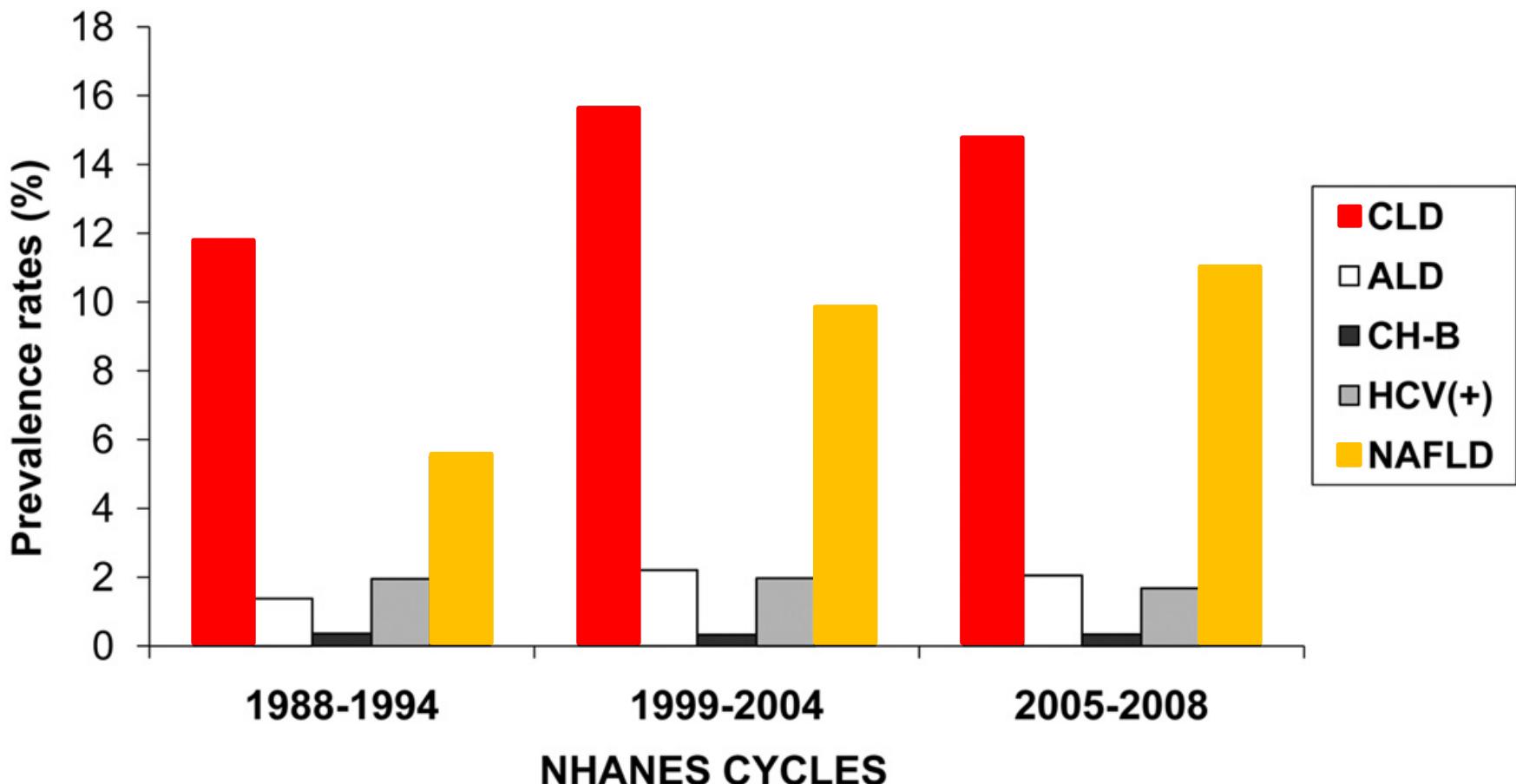
- **Prise en charge**
  - Hépatique
  - Extra-hépatique
- **Traitements**

# Actualité en Hépatologie

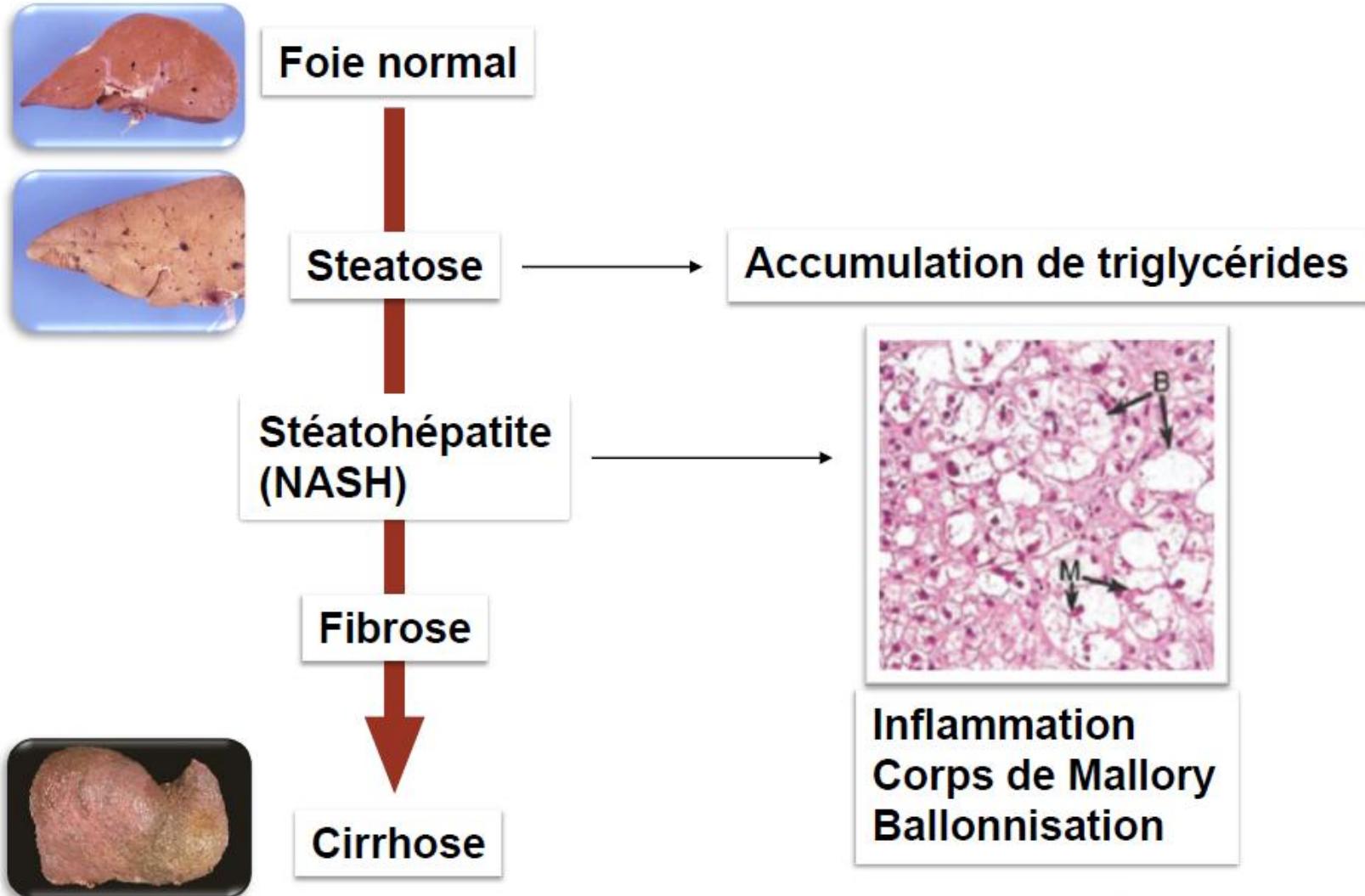
## NAFLD et Alcool

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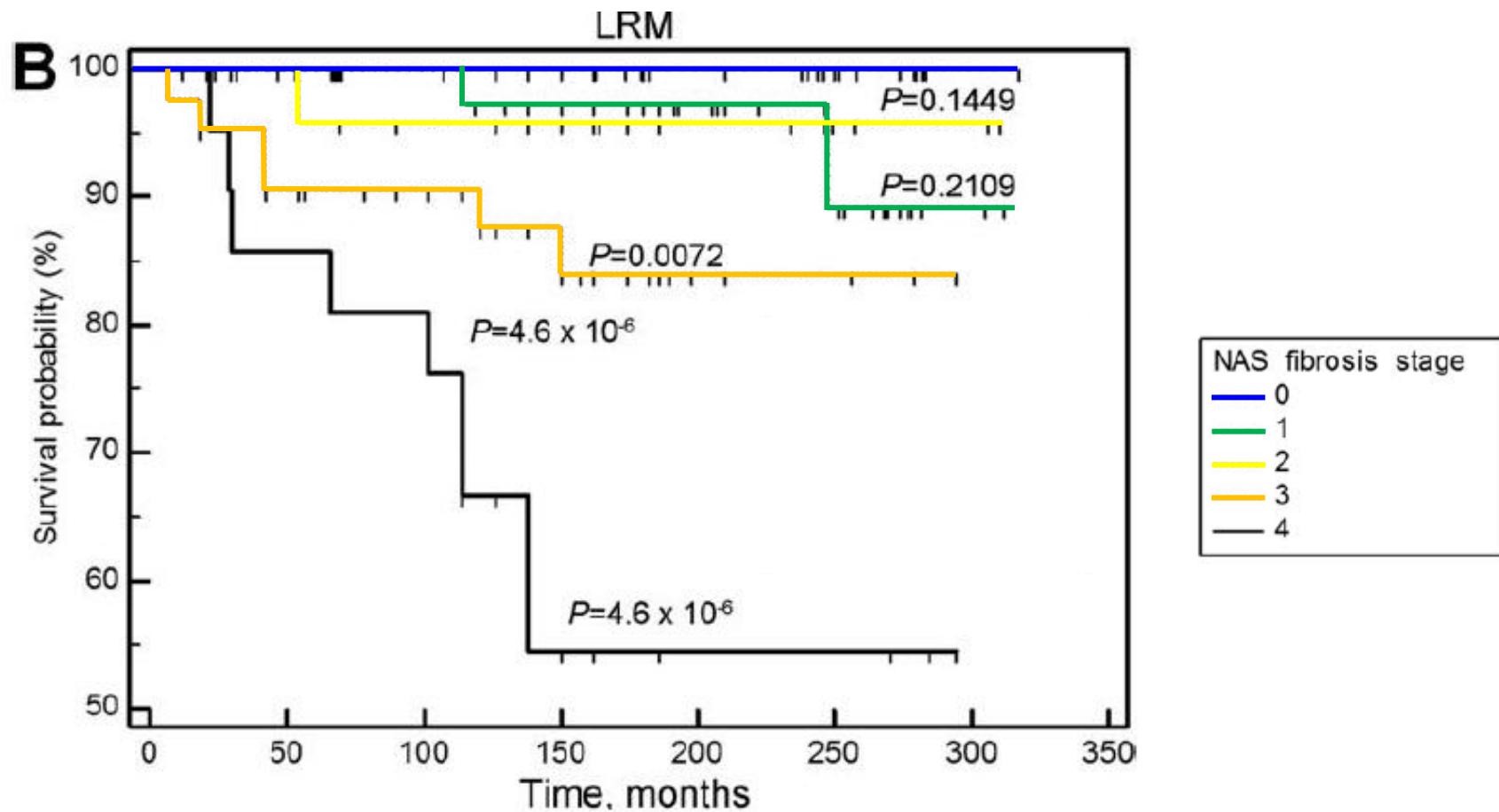
# Prévalence des hépatopathies chroniques aux Etats-Unis



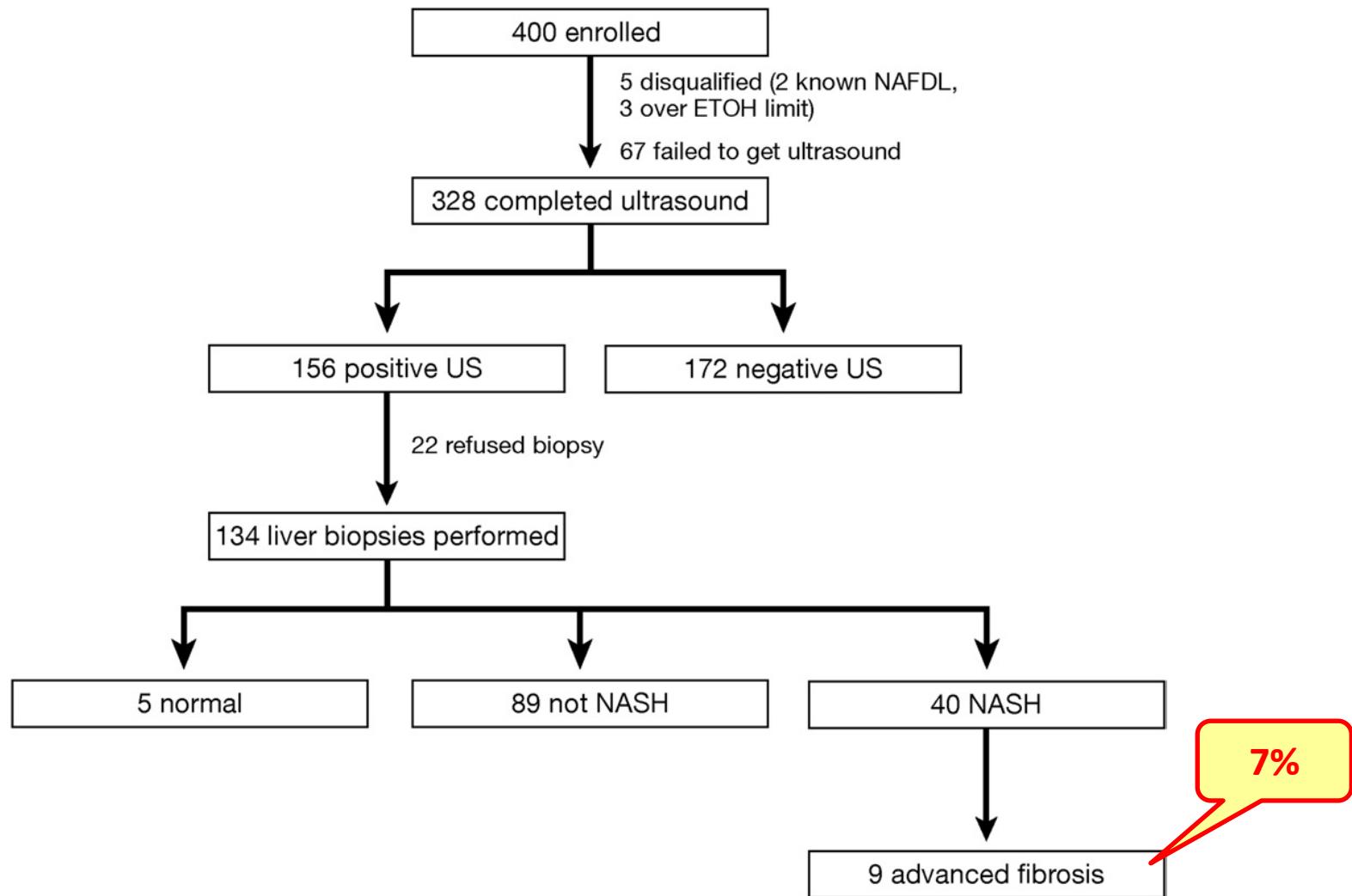
# Histoire Naturelle de la NAFLD



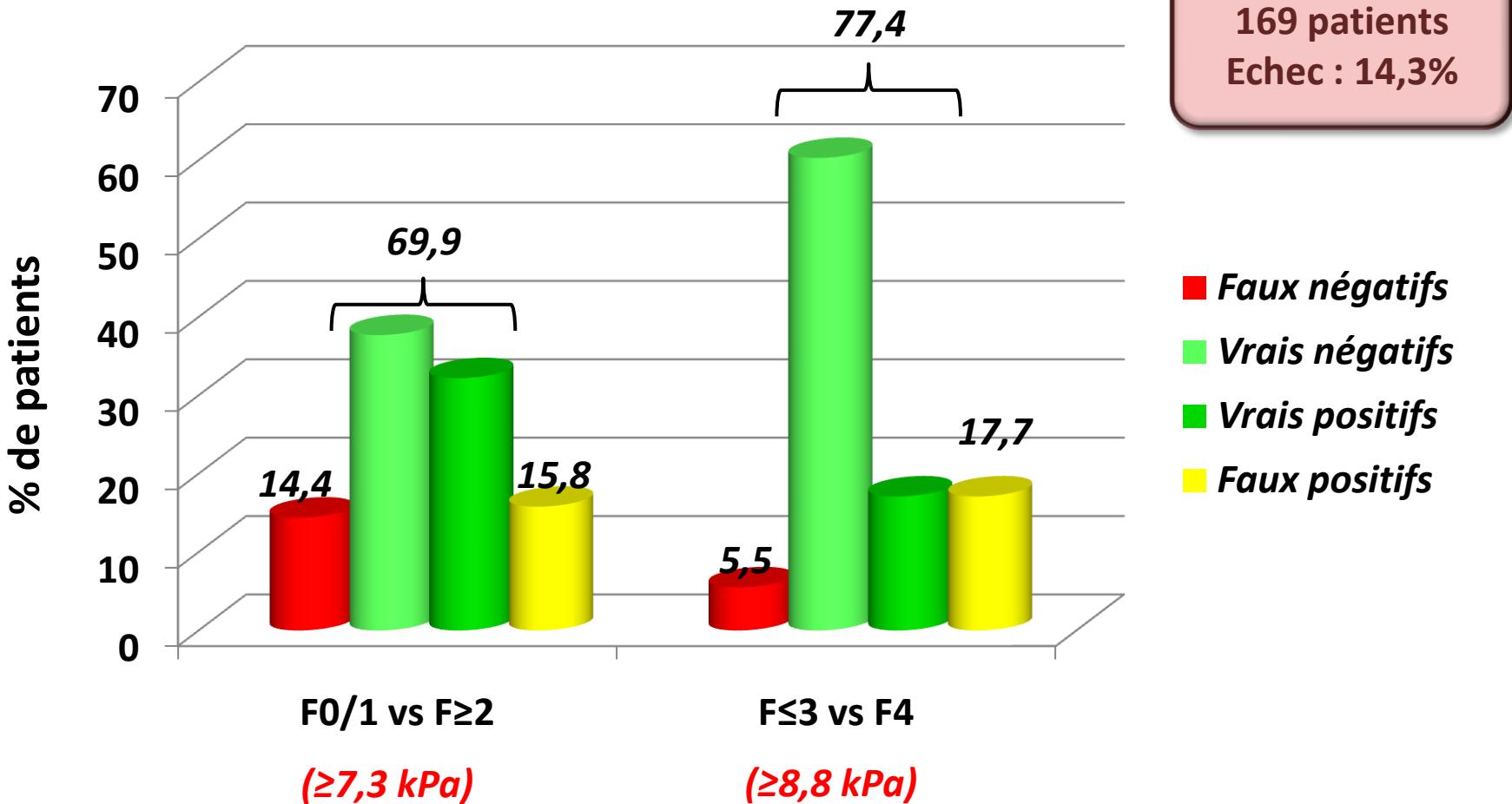
# Stades de fibrose et décès de cause hépatique



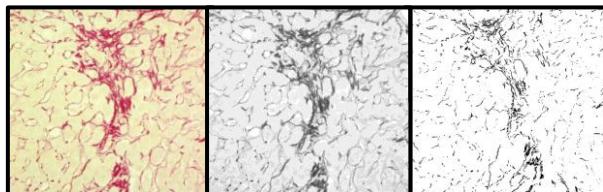
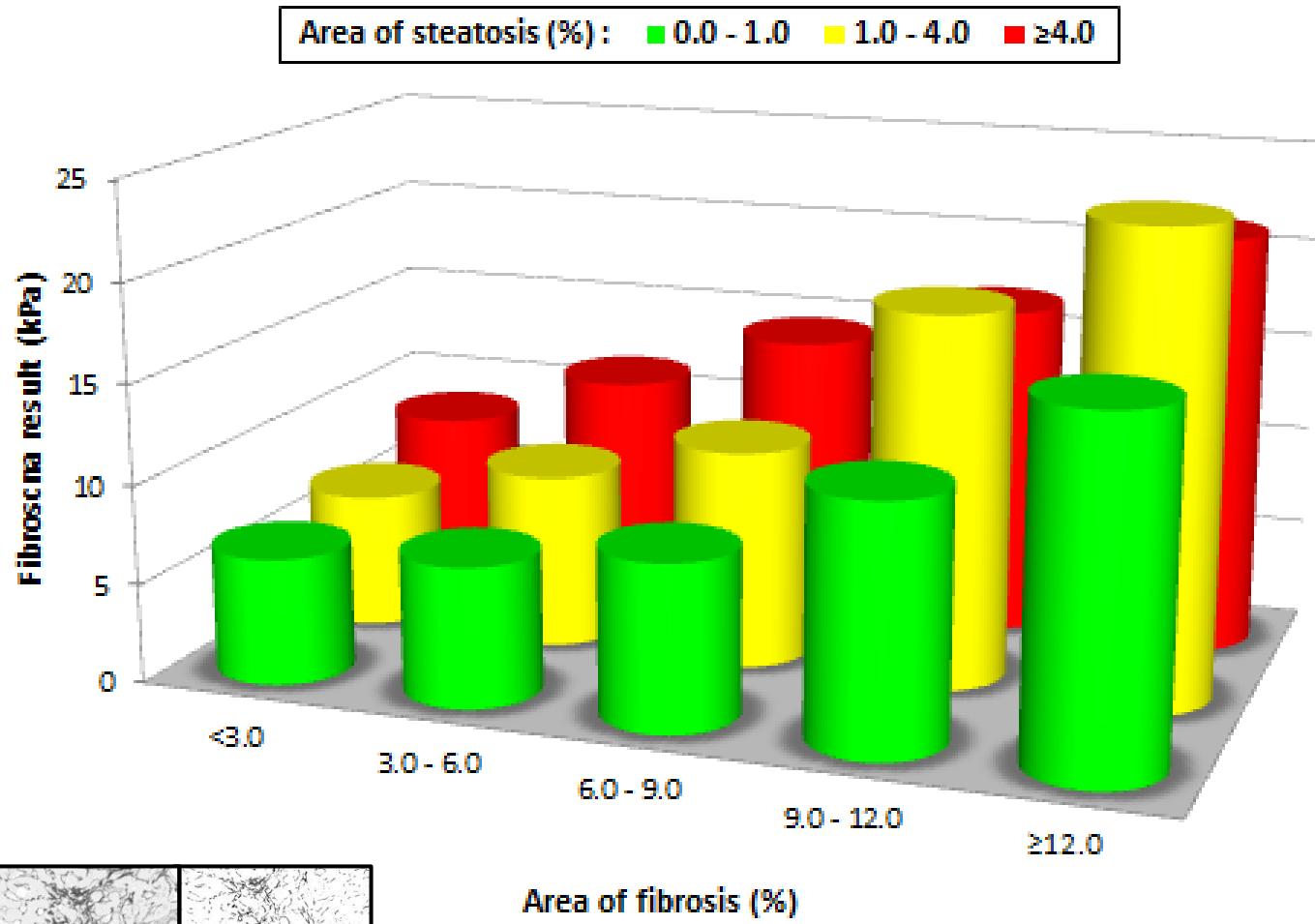
# Epidémiologie de la NAFLD



# Performance du Fibroscan dans la NAFLD



# Fibroscan et stéatose hépatique

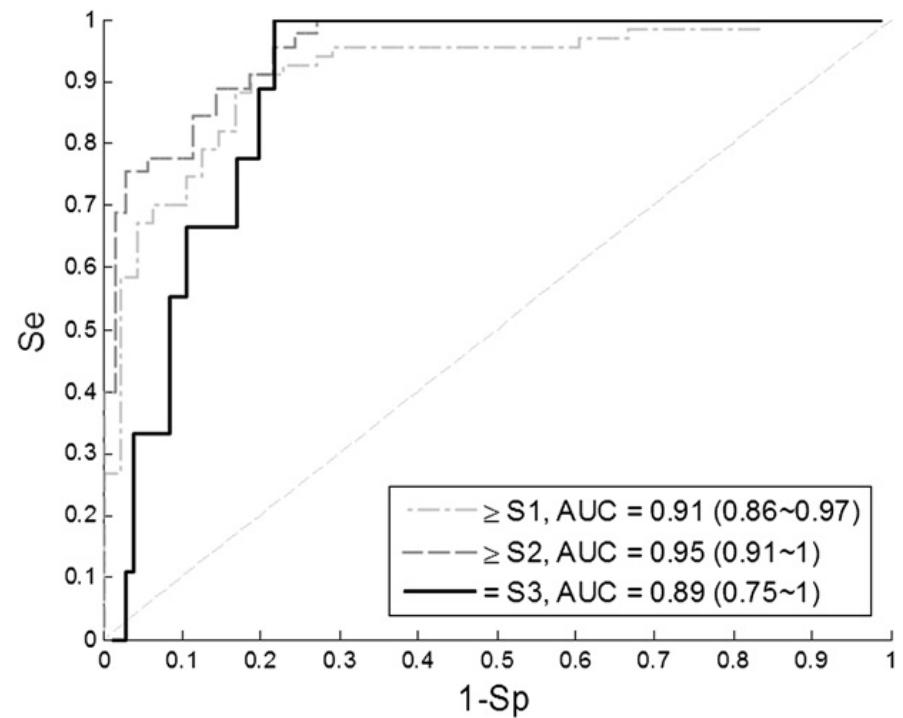
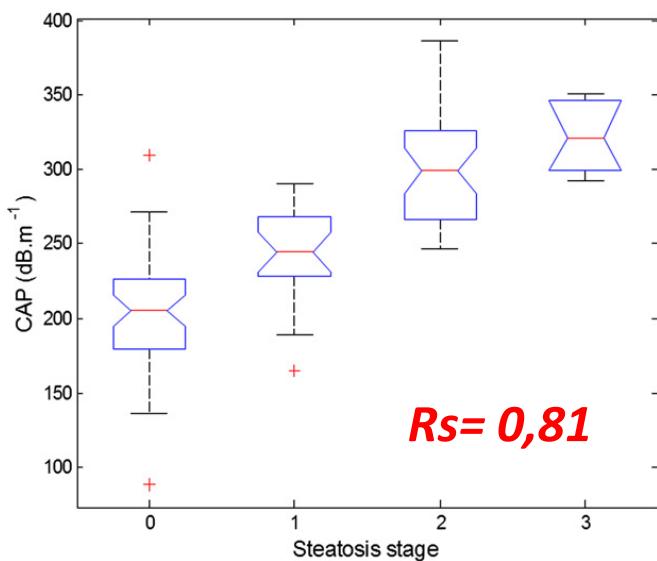
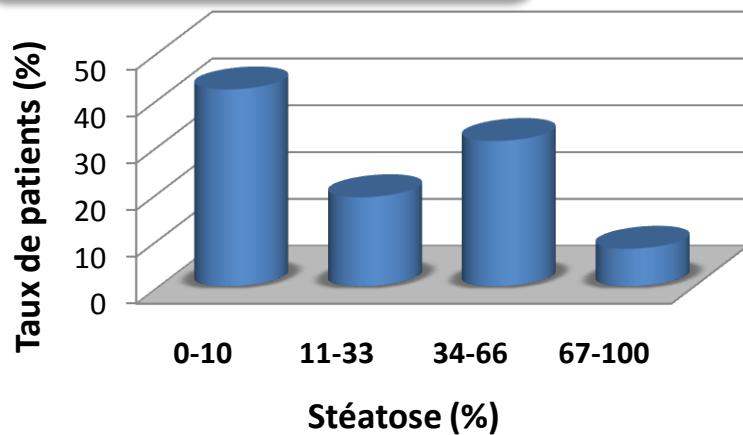


Boursier, AASLD 2010

# Controlled Attenuation Parameter (CAP)



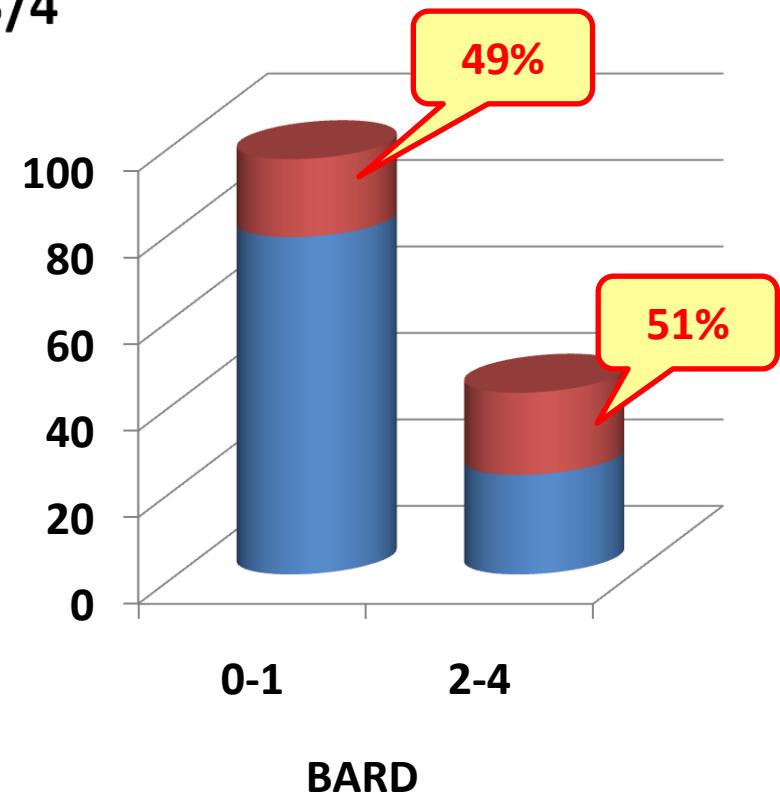
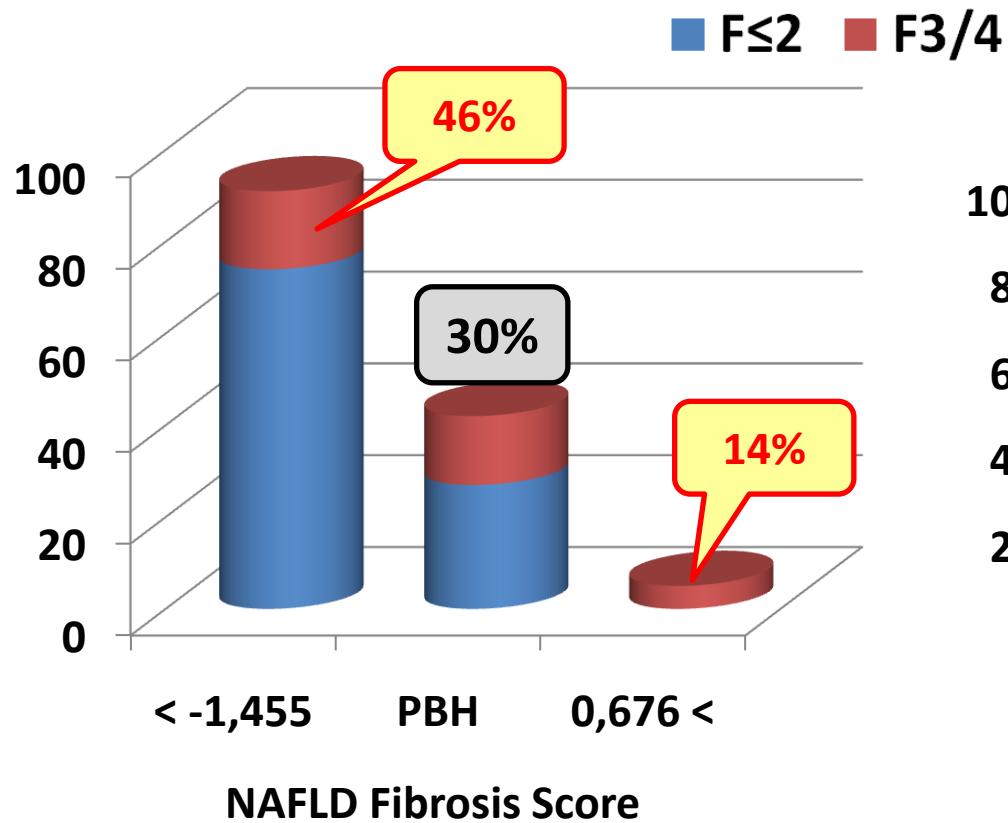
115 patients  
hépatopathie chronique



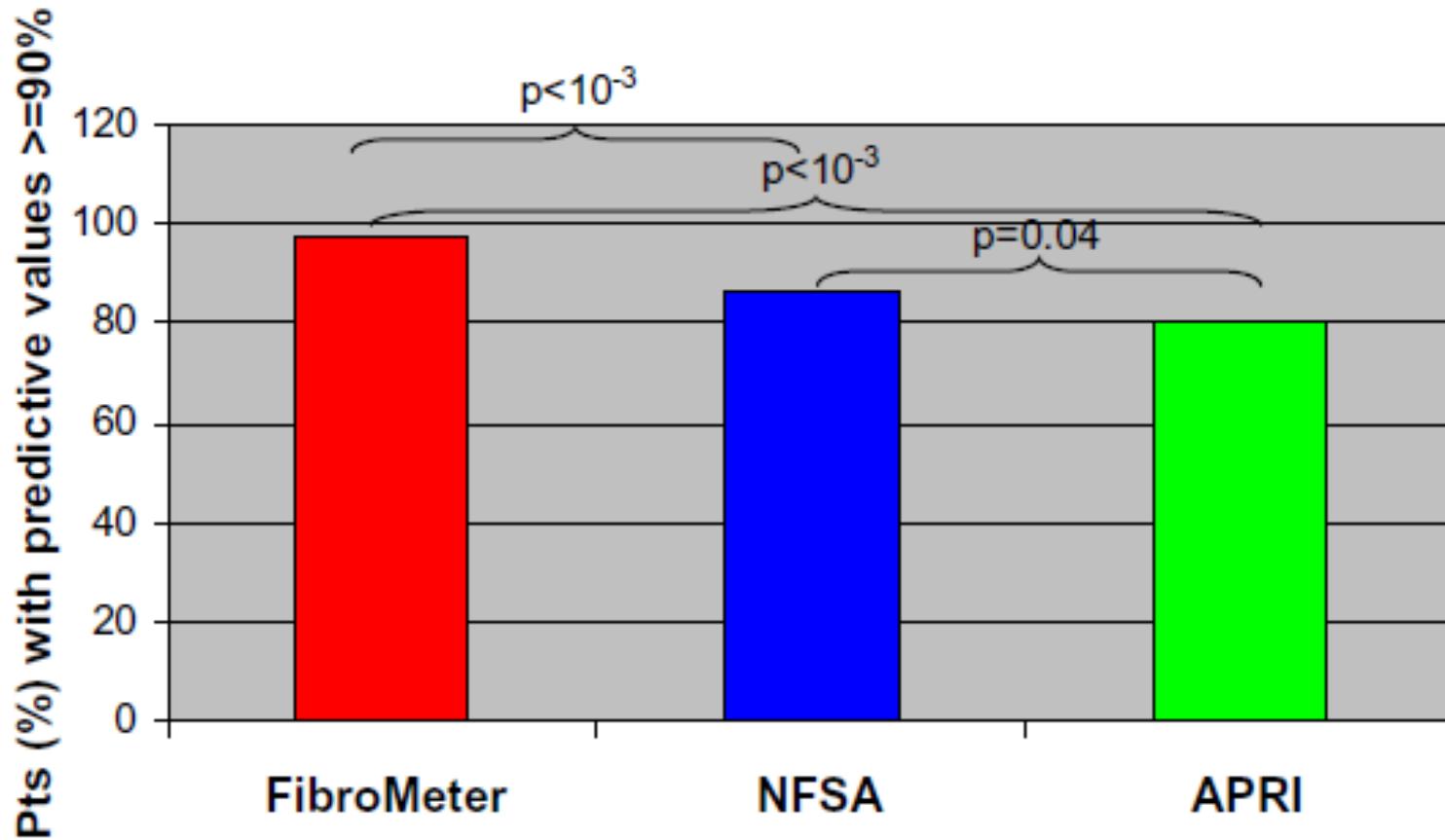
# Performance des tests sanguins dans la NAFLD

BARD (0-4) : ASAT/ALAT  $\geq 2 = 2$ ; BMI  $\geq 28 = 1$ , diabète = 1

NFSA :  $0,037 * \text{age} + 0,094 * \text{BMI} + 1,13 * \text{IFG/diabetes} + 0,99 * \text{AST/ALT} - 0,013 * \text{platelets} - 0,66 * \text{albumin} + 1,675$

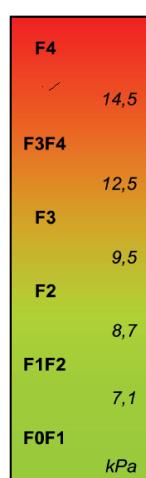


# Performance des tests sanguins dans la NAFLD

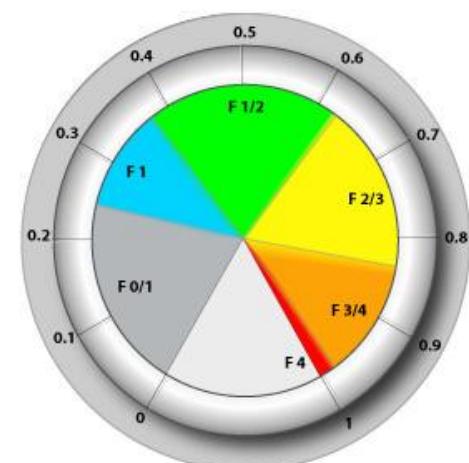


# Combinaison de tests ?

Fibroscan



FibroMeter



Fibroscan  
Result (kPa)

FibroMeter  
result (0-1)

Computerization

Fibroscan classification

Diagnostic accuracy: **58.7%**

FibroMeter classification

Diagnostic accuracy: **68.7%**

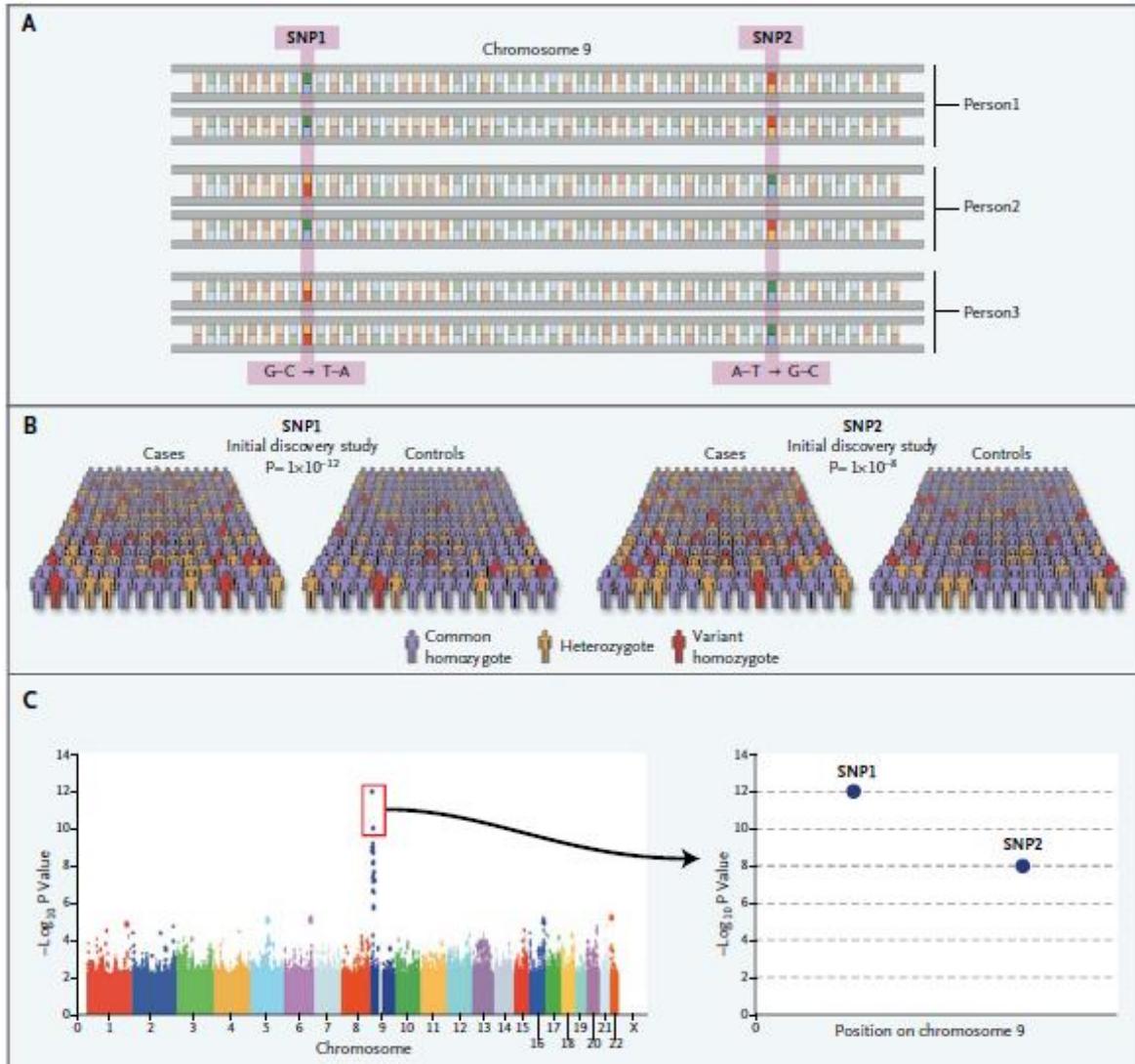
F0/1 F1/2 F2 1 F2/3 F3 1 F4

CSF/SF classification

Diagnostic accuracy: **86.7%**

Boursier, AJG 2011

# Genome Wide Association Studies

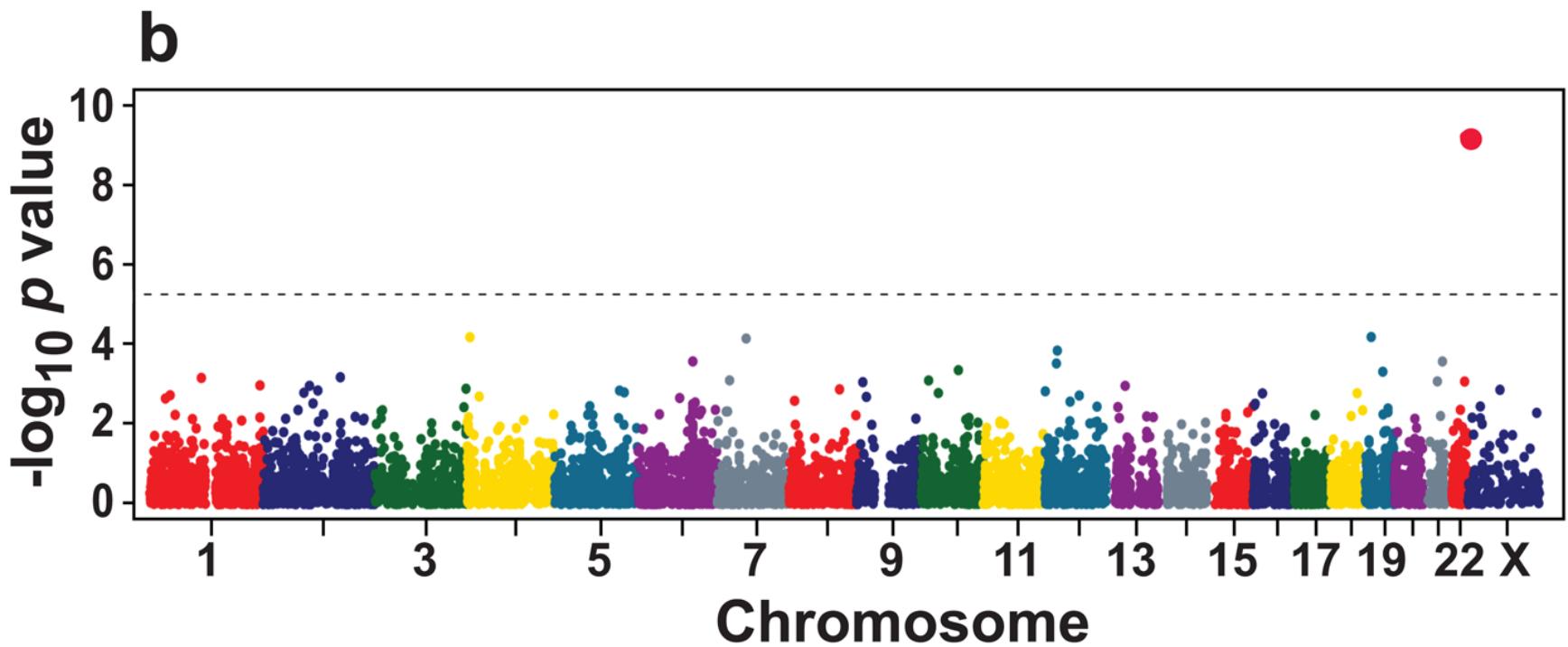


**Figure 1. The Genomewide Association Study.**

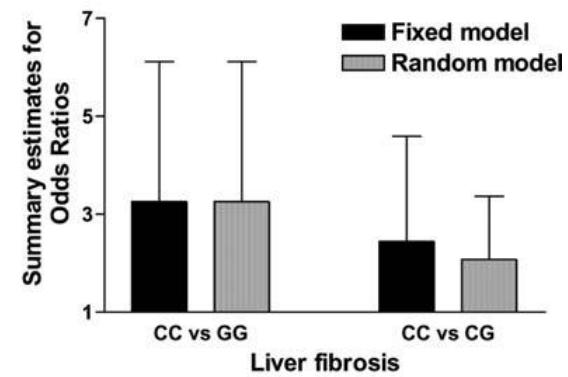
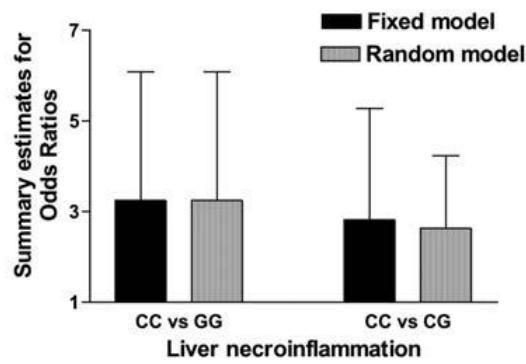
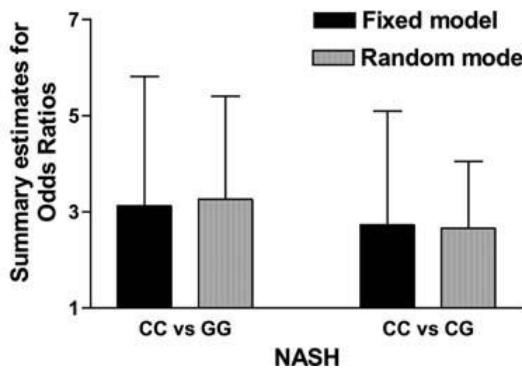
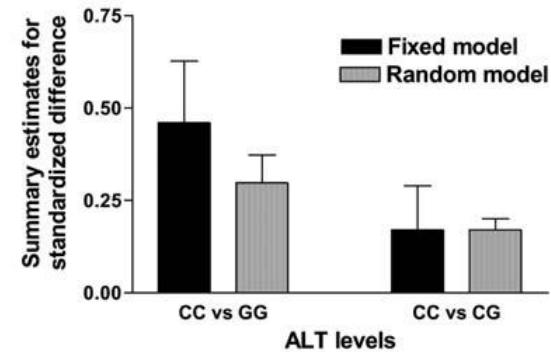
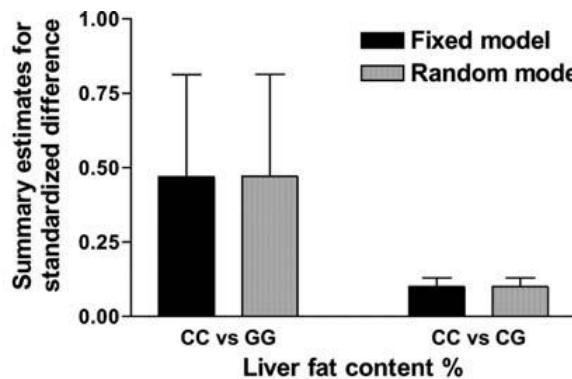
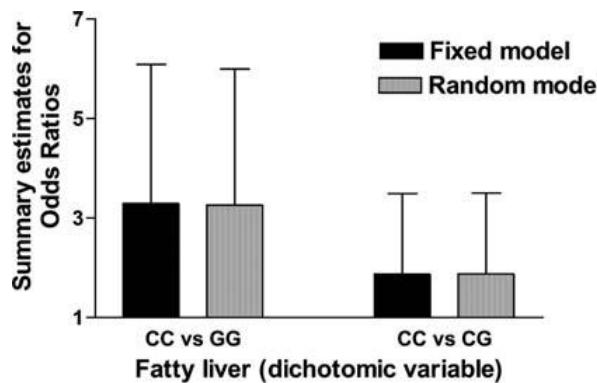
The genomewide association study is typically based on a case-control design in which single-nucleotide polymorphisms (SNPs) across the human genome are genotyped. Panel A depicts a small locus on chromosome 9, and thus a very small fragment of the genome. In Panel B, the strength of association between each SNP and disease is calculated on the basis of the prevalence of each SNP in cases and controls. In this example, SNPs 1 and 2 on chromosome 9 are associated with disease, with  $P$  values of  $10^{-12}$  and  $10^{-8}$ , respectively. The plot in Panel C shows the  $P$  values for all genotyped SNPs that have survived a quality-control screen, with each chromosome shown in a different color. The results implicate a locus on chromosome 9, marked by SNPs 1 and 2, which are adjacent to each other (graph at right), and other neighboring SNPs.

*Manolio, NEJM 2010*

# Polymorphisme du gène PNPLA3



# Polymorphisme du gène PNPLA3 et sévérité de la NAFLD

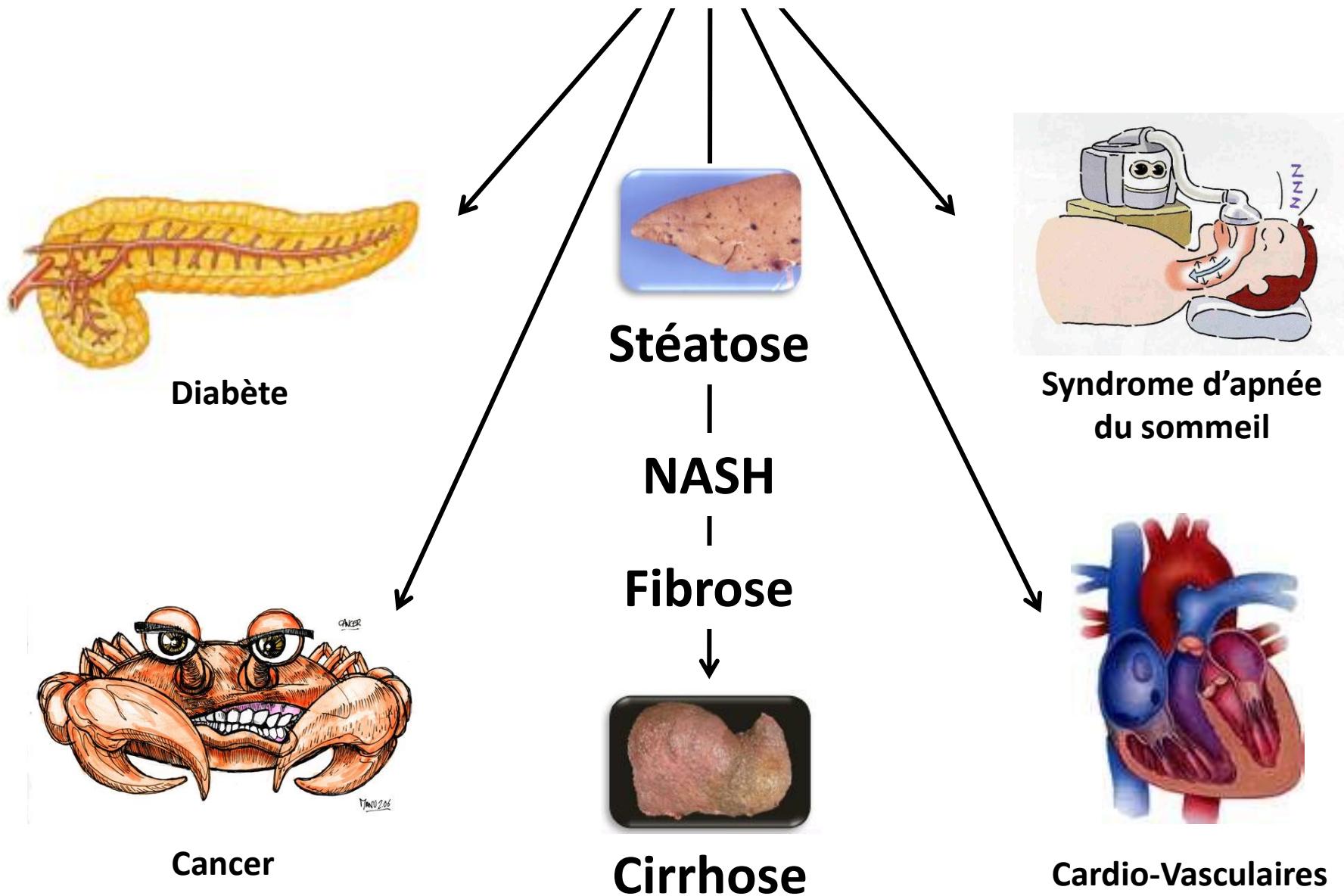


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## NAFLD et Alcool

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- **Traitements**

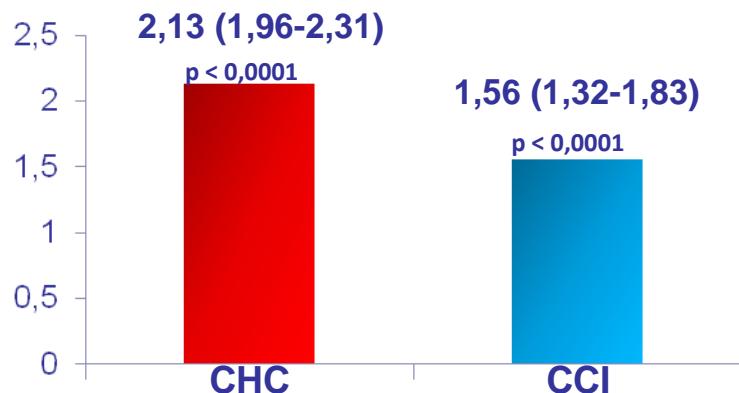
# Maladie métabolique



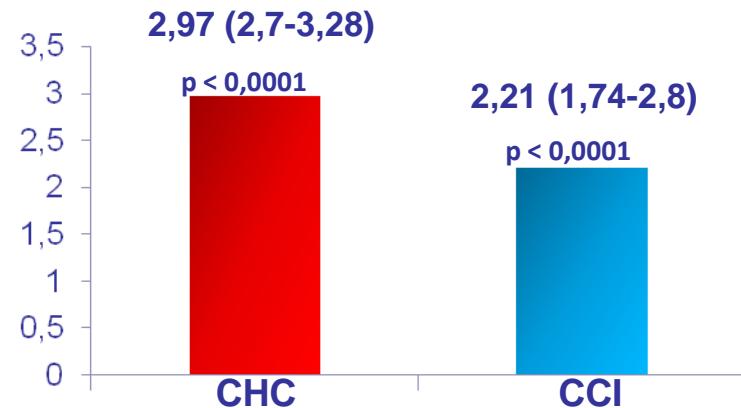
# CHC, cholangiocarcinome intrahépatique et syndrome métabolique

CHC 3 649 sujets ; CCI 743 sujets  
Contrôles (sans cancer) 195 953 sujets

Risque relatif attribuable au syndrome métabolique



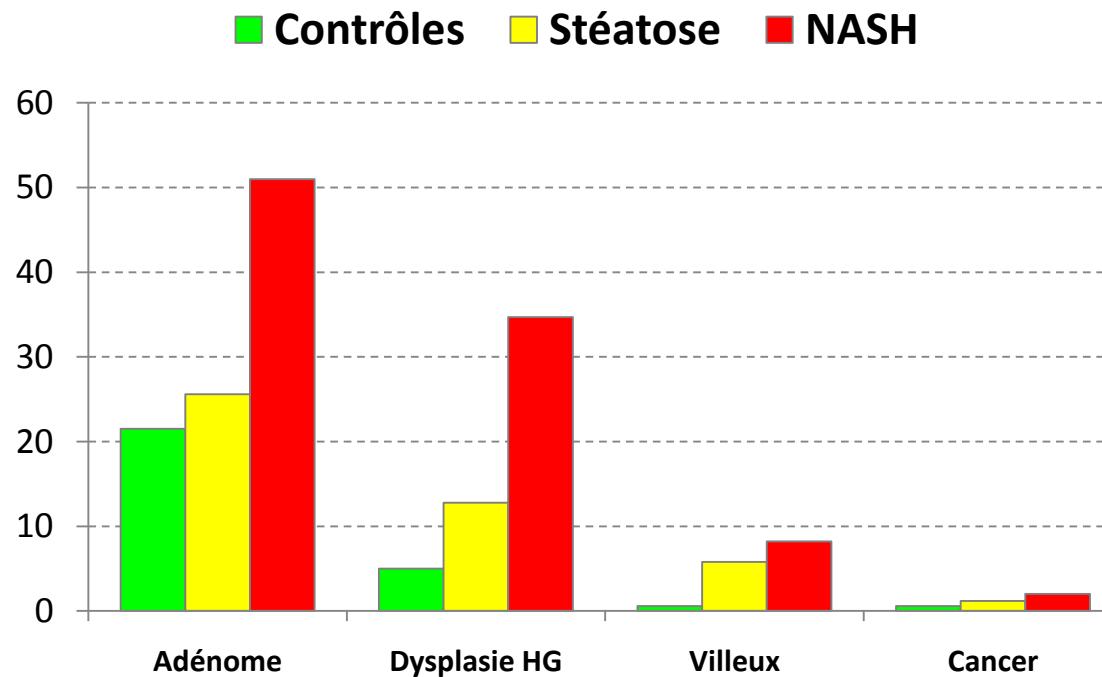
Risque relatif attribuable au tabac



- Le syndrome métabolique est un facteur de risque significatif des deux types de cancer primitif du foie et pourrait expliquer certains CHC et CCI "idiopathiques"

# NAFLD et Cancer du Colon

- 245 patients population générale : 181 contrôles, 64 avec stéatose (spectro-RM)
- 135 NAFLD avec biopsies



NAFLD : facteur indépendant de polype avancé (OR 3,04) mais pas de polype colorectal

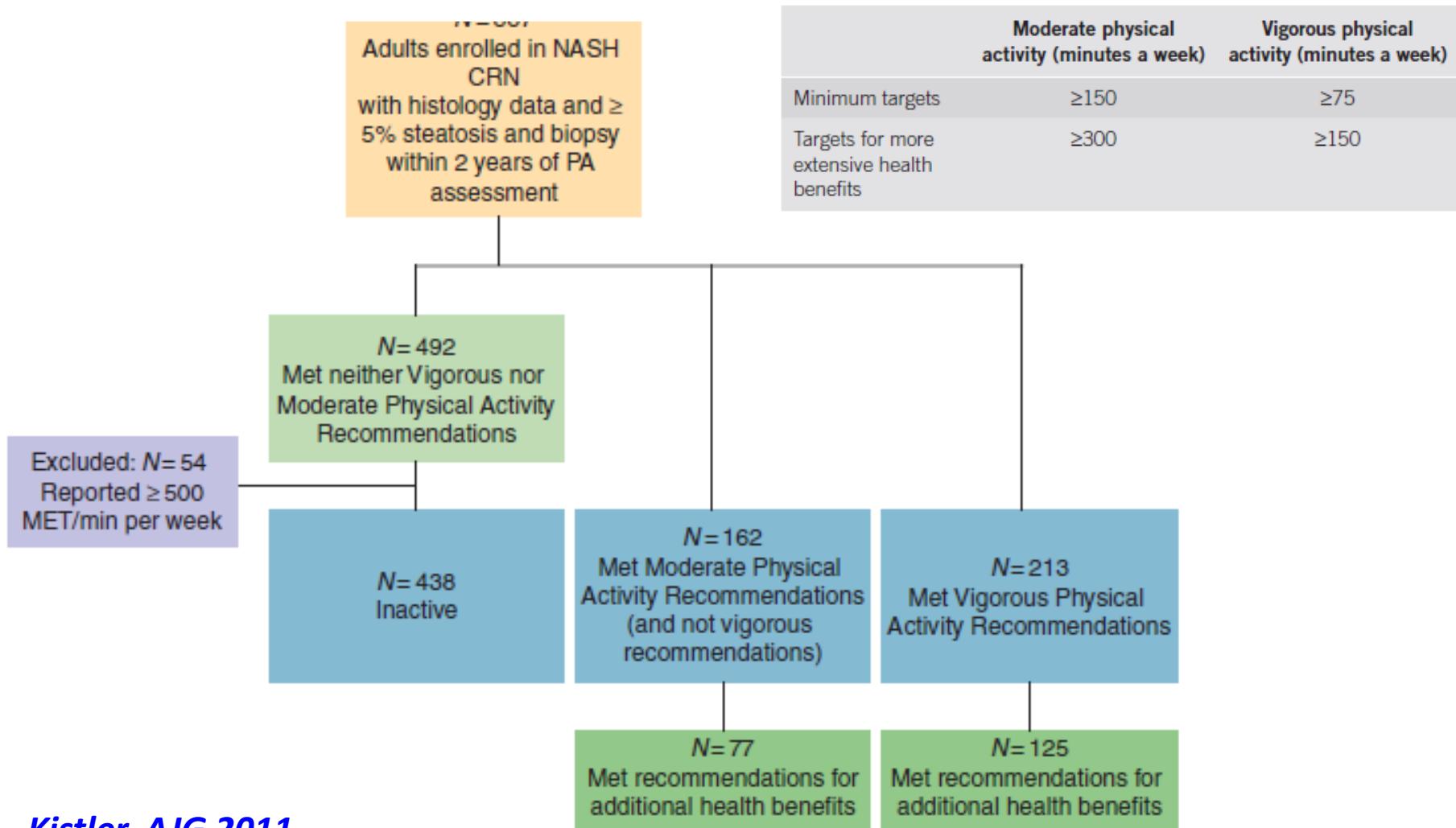
NASH : facteur indépendant de polype avancé (OR 5,3) ou de polype colorectal (OR 4,9)

# Actualité en Hépatologie

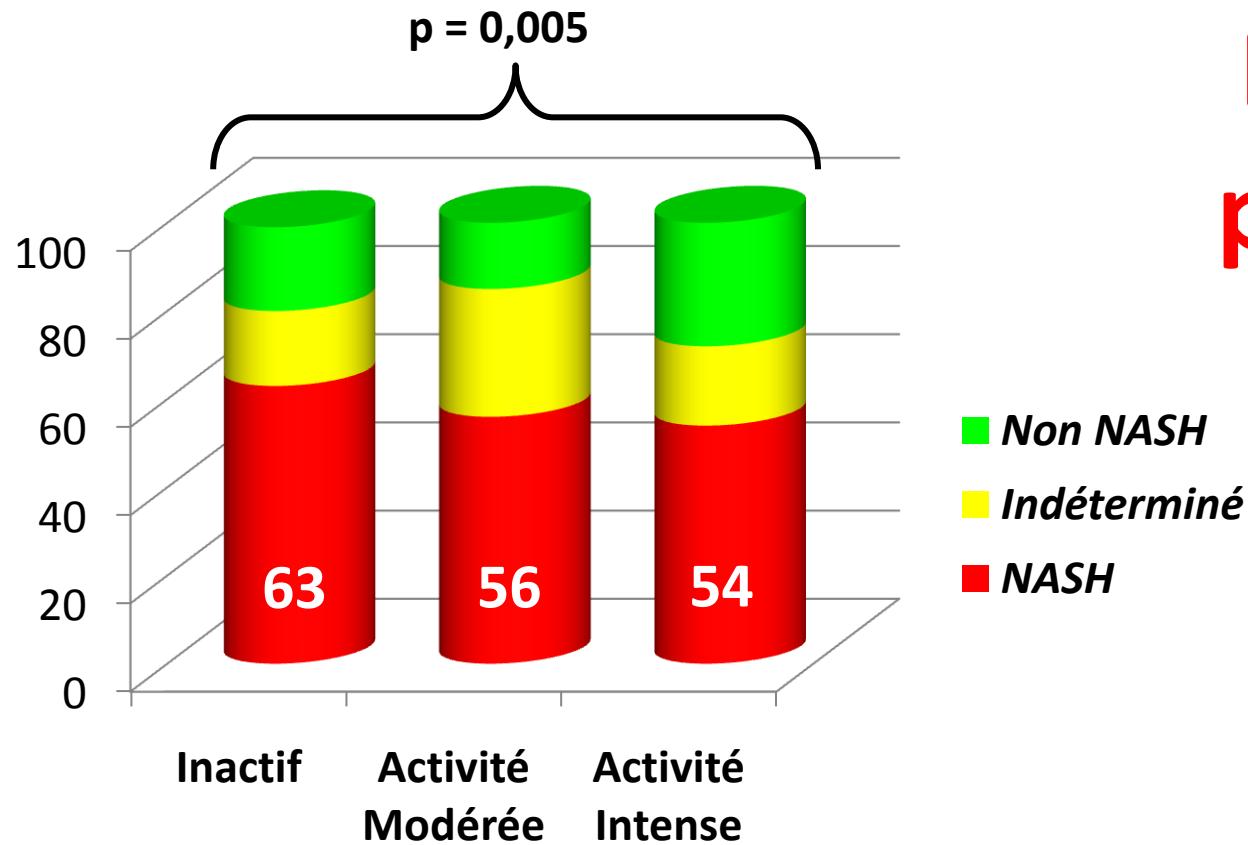
## NAFLD et Alcool

- Prise en charge
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  - Extra-hépatique
- Traitement

# Exercice physique



# Exercice physique



Odd Ratios (ajustés) :

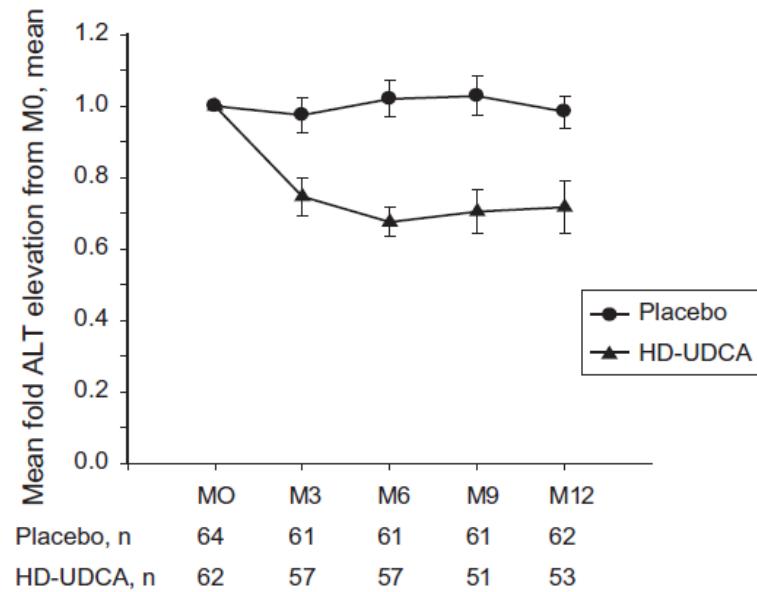
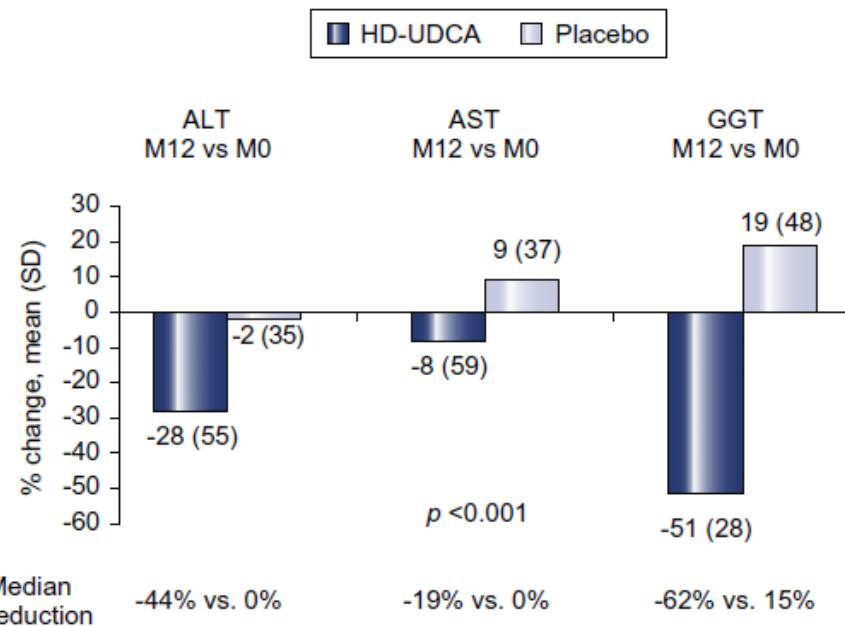
	Activité Modérée		Activité Intense	
	Minimum	« Etendue »	Minimum	« Etendue »
NASH	NS	NS	0,65	0,56
Fibrose F $\geq$ 3	NS	NS	NS	0,53

# Traitements médicamenteux

- Glitazones
- Vitamine E
- Sartan
- AUDC
- ...

- Autres :
  - Alcool
  - Café
  - Tabac

# Acide Ursodésoxycholique



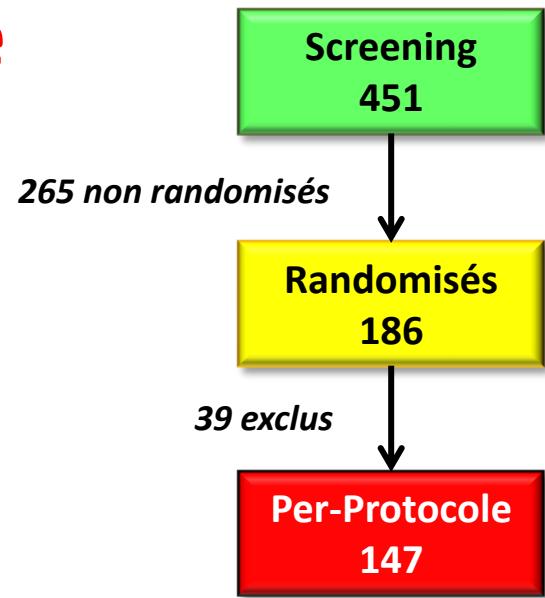
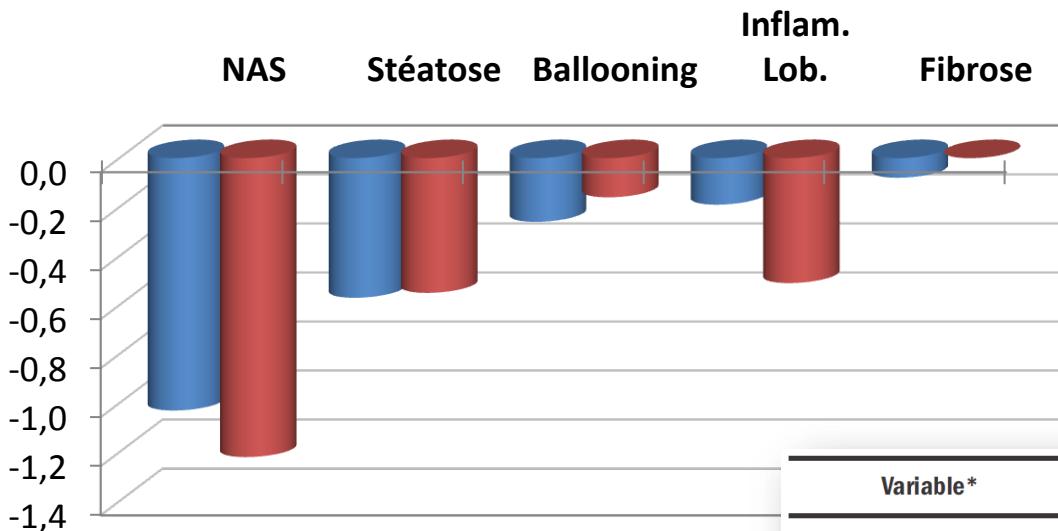
Parameter	HD-UDCA	Placebo	<i>p</i>
Serum glucose level	-2.2	+3.9	0.002
HbA1c level	-2.3	+5.2	<0.001
Insulin level	-19	-0.2	0.038
HOMA score	-20	+6	<0.009

\*Percent relative change between baseline median values and M12.

Ratziu,  
J Hepatol 2011

# Acide Ursodésoxycholique

■ Placebo ■ AUDC

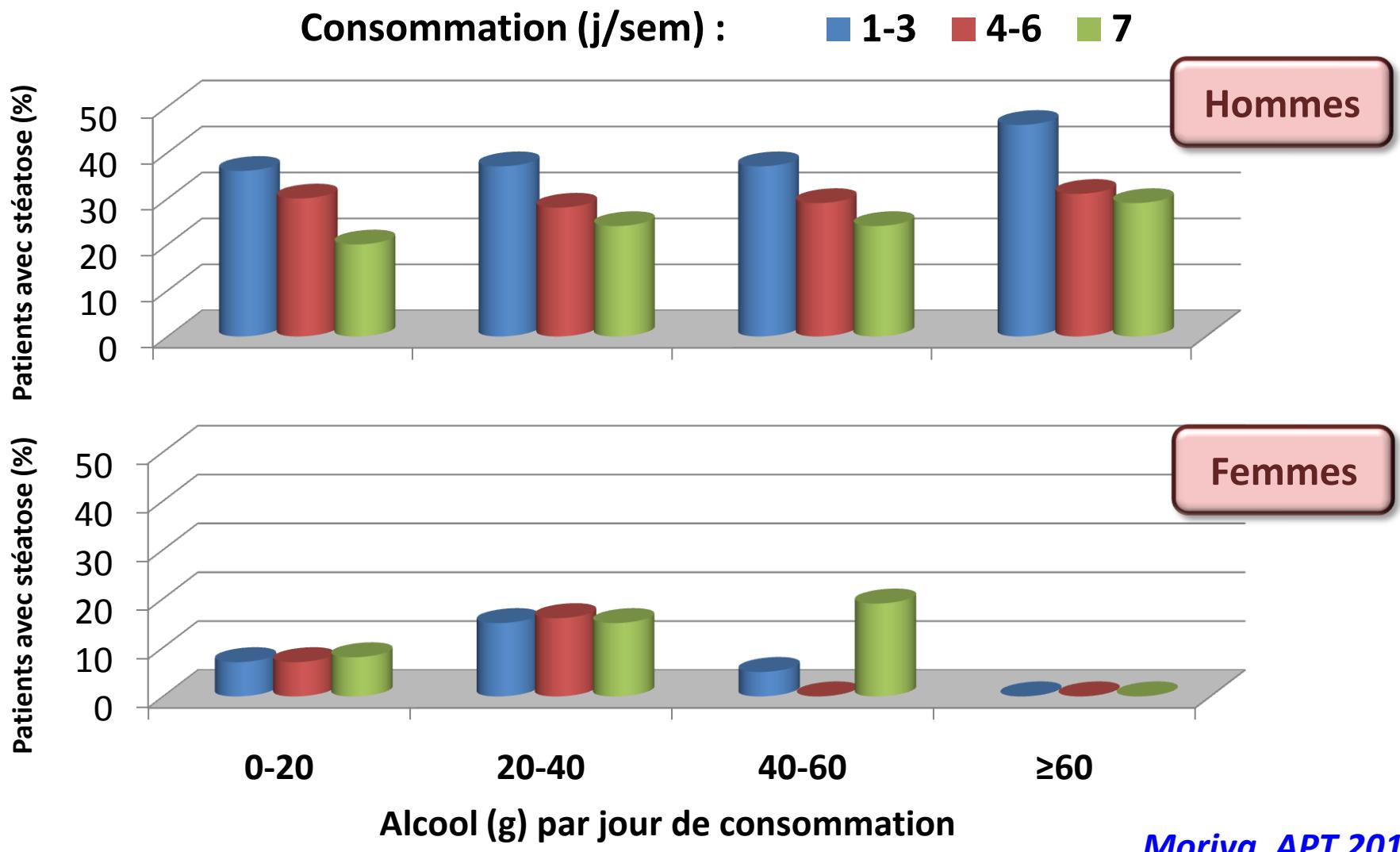


Variable*	UDCA	Placebo	P Value
Total bilirubin, mean/SD	0.15/0.89	-0.24/0.91	0.061
AST, mean/SD	-16.46/30.83	-14.30/28.84	0.917
ALT, mean/SD	-40.63/58.37	-38.15/62.60	0.851
AP, mean/SD	-10.52/47.65	-9.43/43.88	0.792
GGT, mean/SD	-52.42/64.19	-16.84/53.98	<0.0001
Albumin, mean/SD	0.22/3.62	-0.66/4.26	0.289
Triglycerides, mean/SD	-0.18/1.19	-0.17/1.21	0.828
Cholesterol, mean/SD	-85.09/109.04	-88.29/105.53	0.973
Glucose, mean/SD	-0.19/2.24	-0.08/2.49	0.193
Iron, mean/SD	-0.31/7.83	-0.58/7.50	0.530

# Etude de Leuschner

- Beaucoup d'exclus
- AUDC : 23 - 28 mg/kg
- Critères d'évaluation semi-quantitatifs
- Groupe placebo ?
- Effet métabolique ?

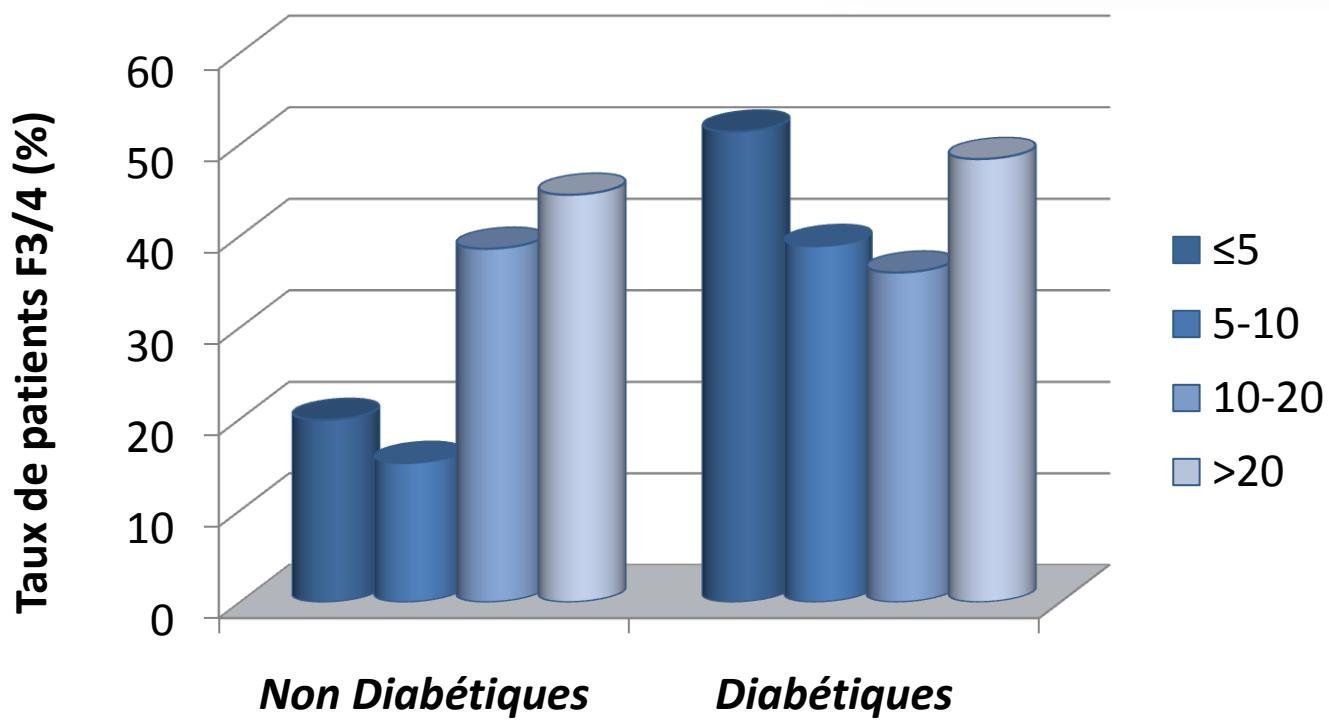
# Alcool et NAFLD



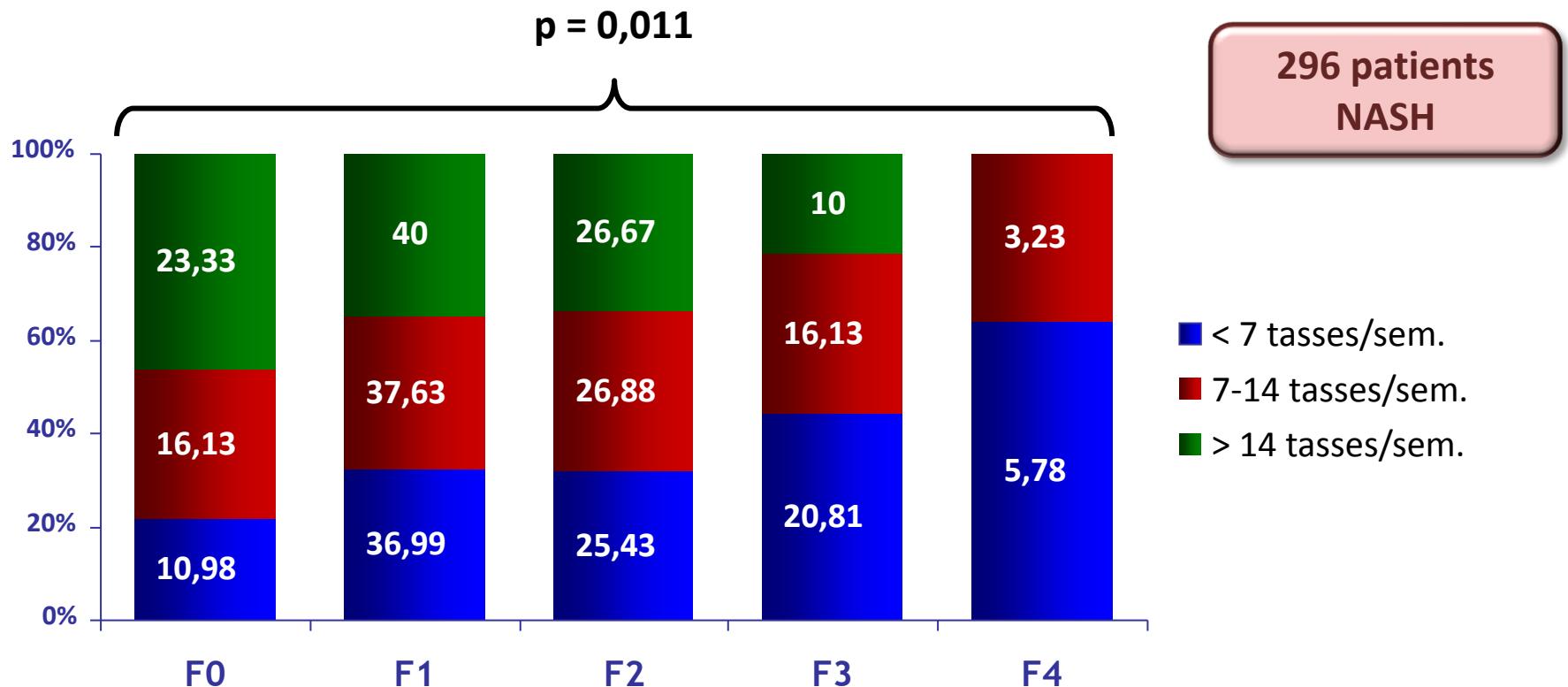
# Tabac et NAFLD

1091 patients NAFLD  
Facteurs associés à F3/4

	OR (95% CI)	p-value
History of $\geq 10$ vs. $< 10$ pack-years of smoking	1.63 (1.19-2.24)	0.003
Age, years	1.06 (1.04-1.07)	<0.0001
DM, yes vs. no	2.44 (1.83-3.26)	<0.0001
Alcohol use, not lifetime abstinent versus lifetime abstinent	0.62 (0.46-0.82)	0.0008

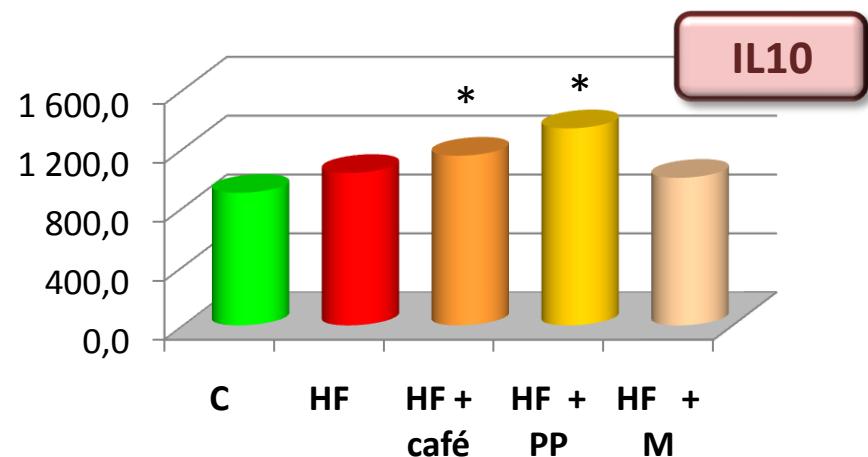
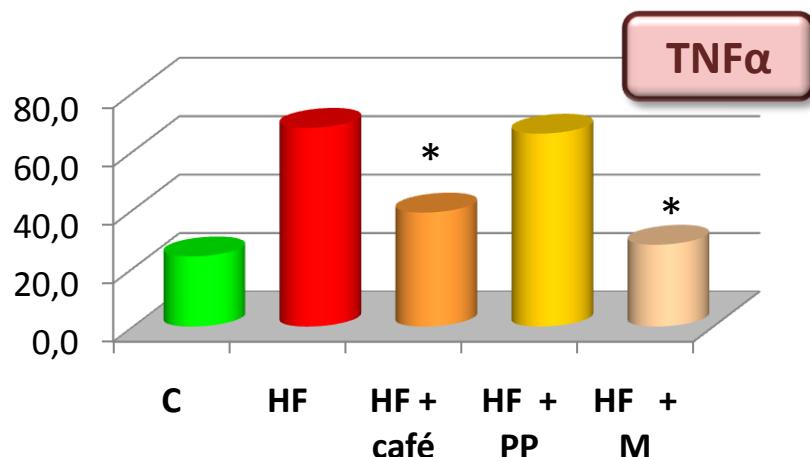
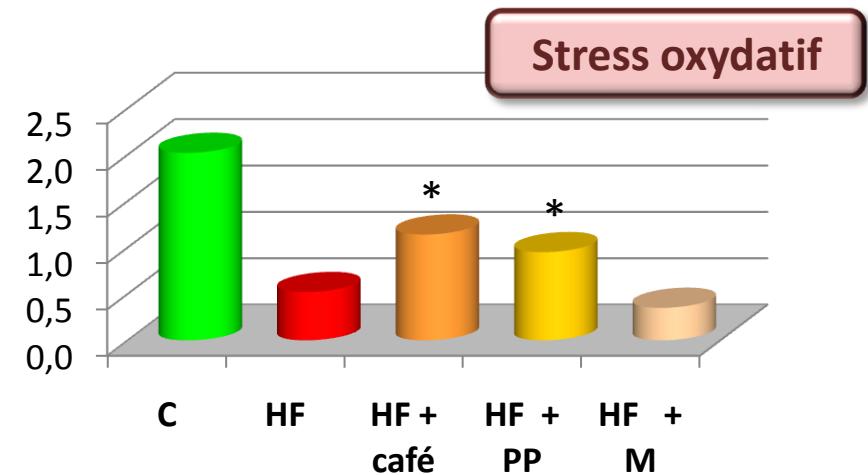
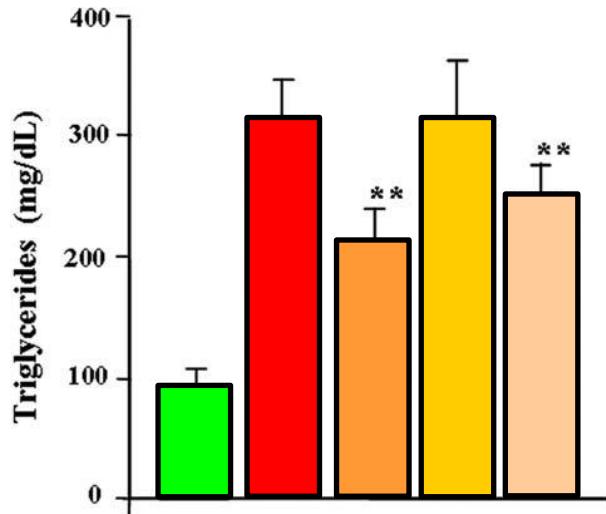


# Café et Fibrose dans la NAFLD

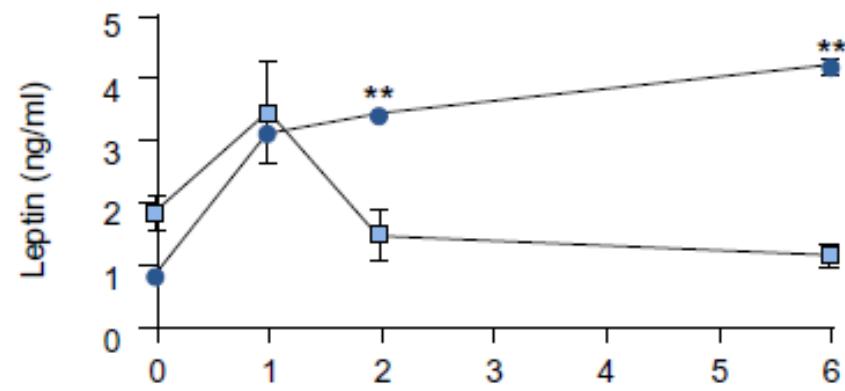
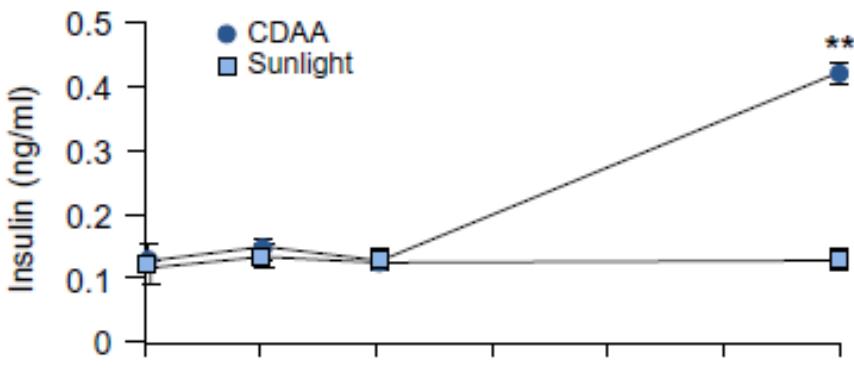
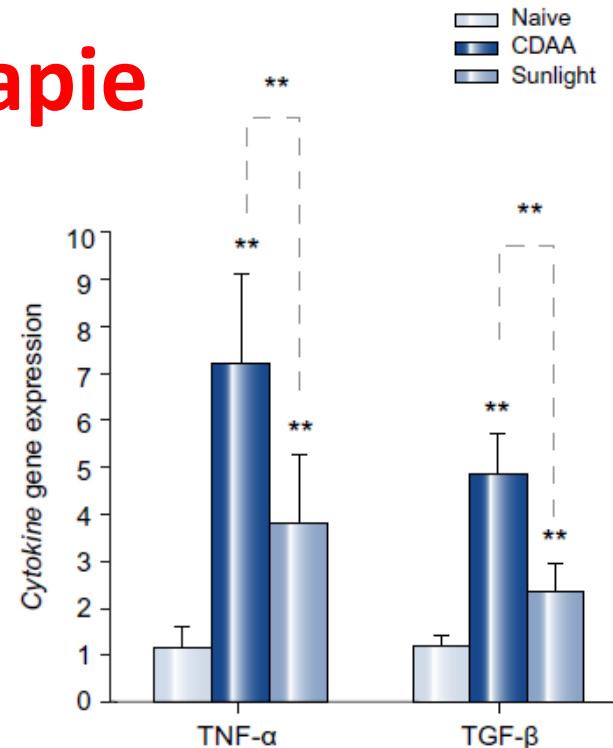
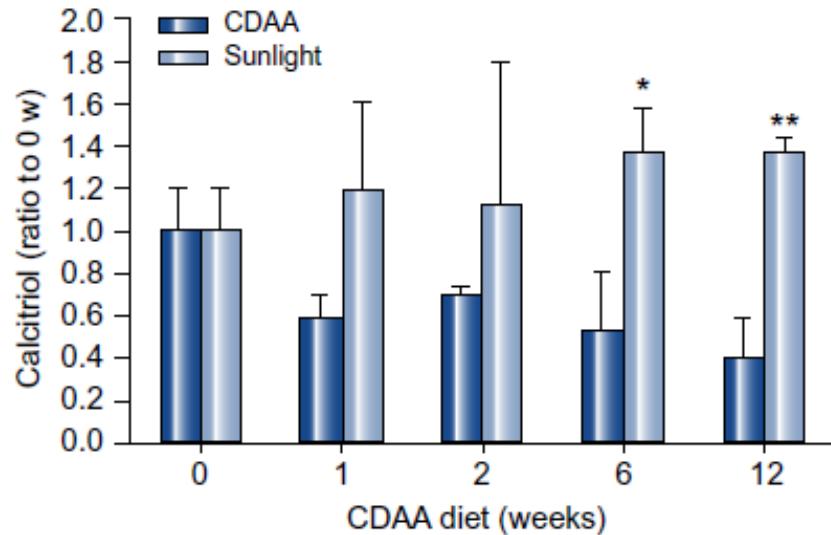


L'analyse du profil d'expression des gènes chez 48 patients a retrouvé une augmentation de l'expression de certains cytochromes (CYP 3A7, 7B1 et 26A1) et de l'enzyme UGT1 dont l'activité pourrait optimiser le métabolisme lipidique

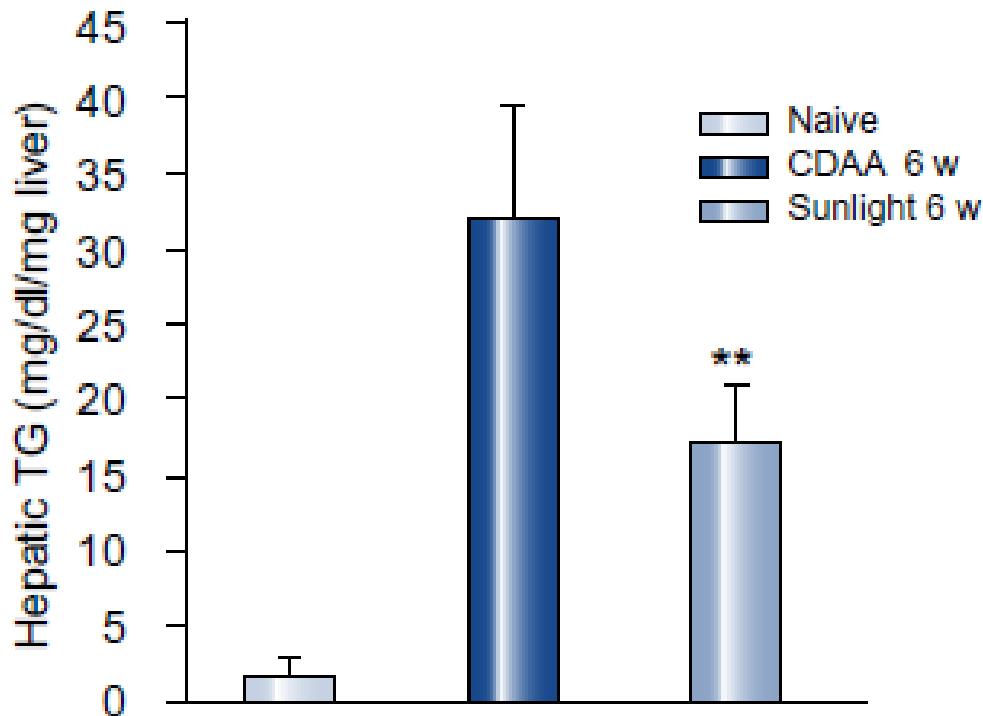
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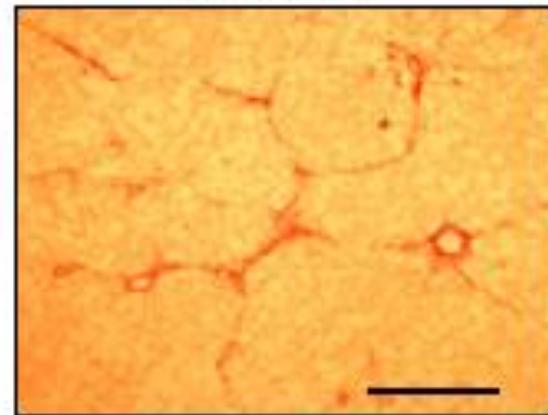
# Luminothérapie



# Luminothérapie



CDAA 6 w



CDAA + Sunlight 6 w

