



# Manejo Actual de la Hepatitis Autoinmune

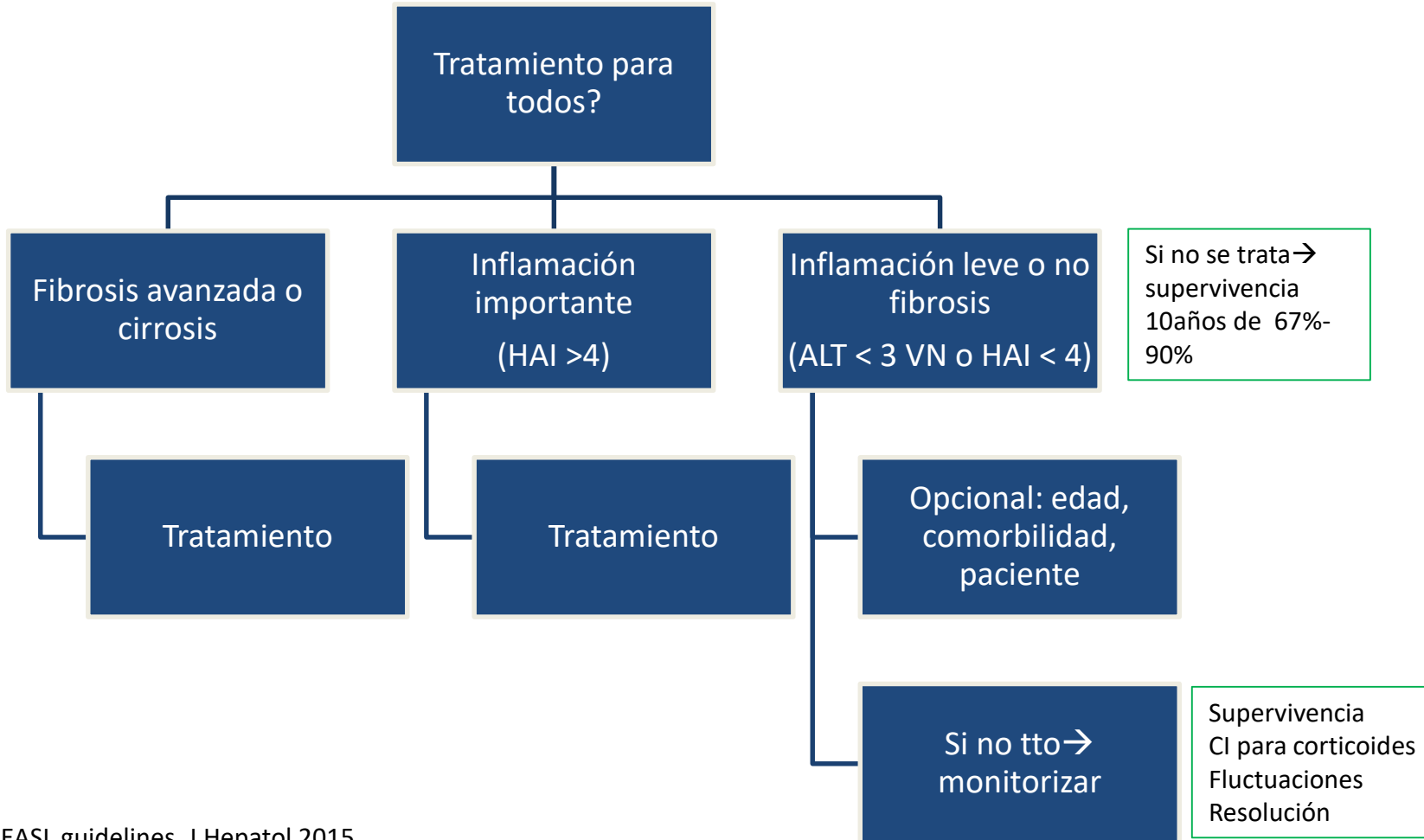
Maria Carlota Londoño, MD  
Servicio de Hepatología  
Hospital Clínic Barcelona  
mlondono@clinic.cat

# Tratamiento

---

- Objetivo: Lograr la remisión de la enfermedad y prevenir la progresión de la fibrosis
- Remisión: Normalización bioquímica e histológica
- Controles de por vida.
- Tratamiento prolongado al menos 3 años después de lograr la remisión

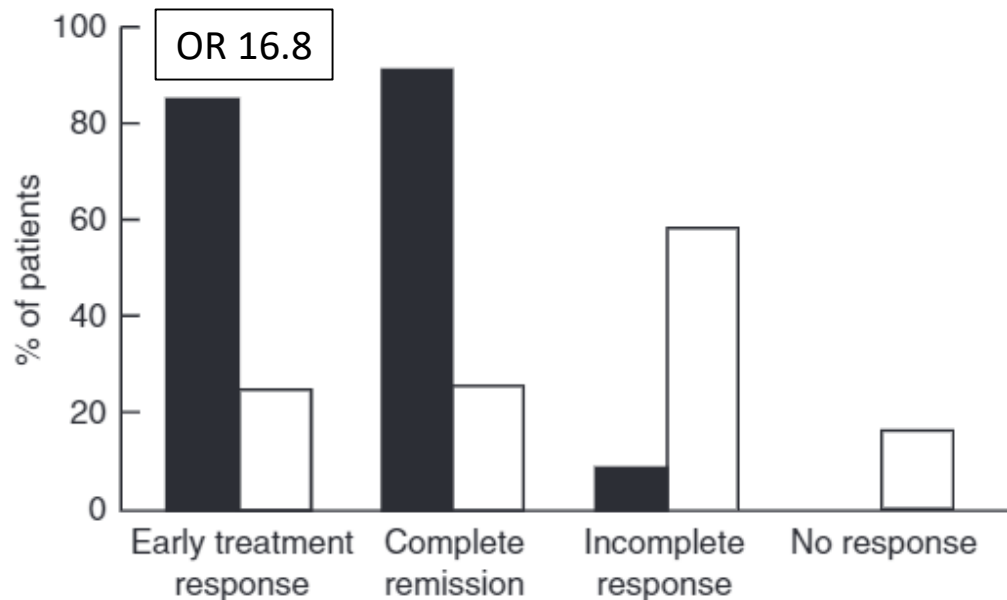
# Tratamos a todos los pacientes?



Modificado de EASL guidelines. J Hepatol 2015  
Czaja et al. Liver Int 2009  
Feri et al. Hepatology 2005  
Kogan et al. J Gastroenterol Hepatol 2002

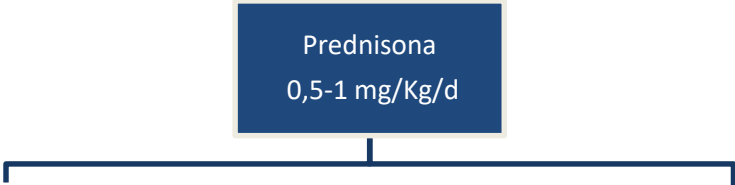
# Con qué los tratamos?

Independiente del tratamiento es fundamental garantizar una buena respuesta inicial ya que se asocia con mejor supervivencia



# Con qué los tratamos?

Prednisona  
0,5-1 mg/Kg/d



Week	Prednisolone (mg/day)	Azathioprine (mg/day)
1	60 (= 1 mg/kg body weight)	-
2	50	-
3	40	50
4	30	50
5	25	100*
6	20	100*
7 + 8	15	100*
8 + 9	12.5	100*
From week 10	10	100*

# Dosis alta o baja de Prednisona?

Diseño: Análisis retrospectivo en 9 centros de 5 países de Europa (n=451).

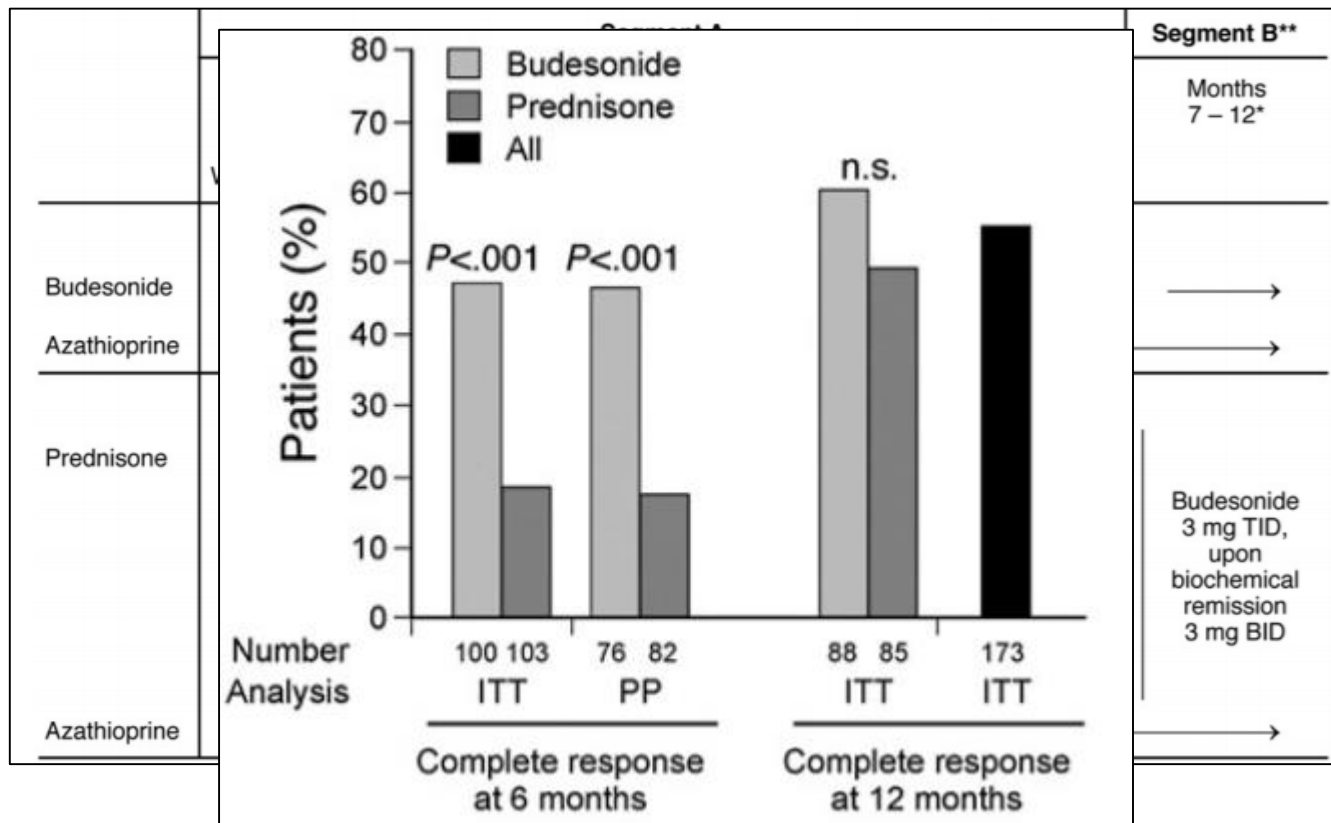
Objetivo: Comparar dosis altas o bajas de prednisona en inducción de remisión ( $\geq$  o  $<$  0,5 mg/Kg/d)

End point: 1) Normalización transaminasas a los 6 meses, 2) Remisión a los 6 meses

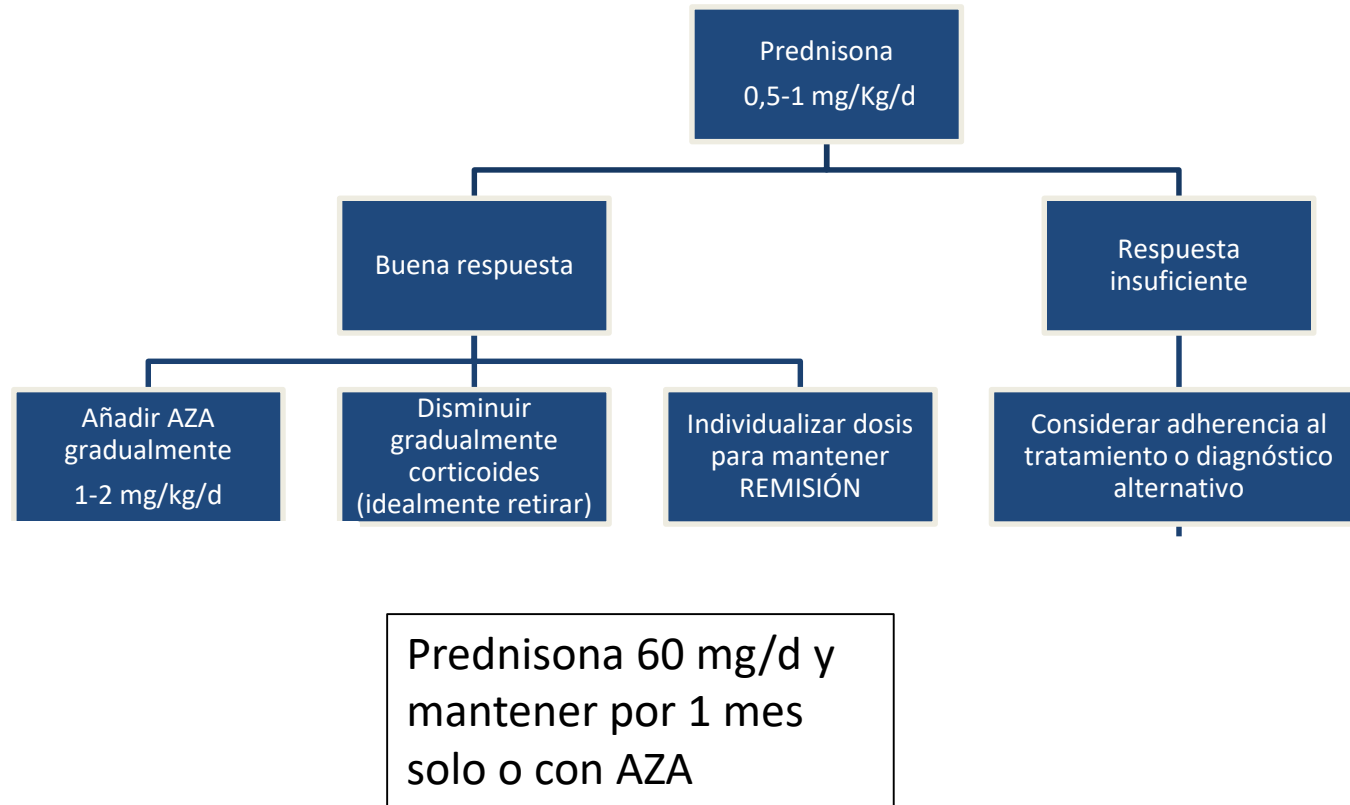
	<0.50 mg/kg/day (n = 170)	$\geq$ 0.50 mg/kg/day (n = 281)	P value
Female sex, n (%)	125 (73.5)	213 (75.8)	.59
Age at diagnosis, y (SD)	52.03 (15.35)	49.67 (17.47)	.13
Simplified IAIHG score, median	6	7	< .01
ALT $\times$ ULN, median (IQR) <sup>a</sup>	7.12 (12.69)	13.44 (21.00)	< .01
AST $\times$ ULN, median (IQR) <sup>b</sup>	8.52 (17.40)	13.48 (24.27)	< .01
Bilirubin, $\mu$ mol/L, median (IQR) <sup>c</sup>	29 (83)	48 (177)	.01
IgG, g/L, median (IQR) <sup>d</sup>	20.79 (10.90)	21.60 (13.00)	.10
Cirrhosis, n (%)	44 (25.9)	42 (14.9)	< .01
AS-AIH, n (%)	18 (10.6)	29 (10.3)	.93

# Hay alguna alternativa a la Prednisona?

## RESULTADOS DE TRATAMIENTO

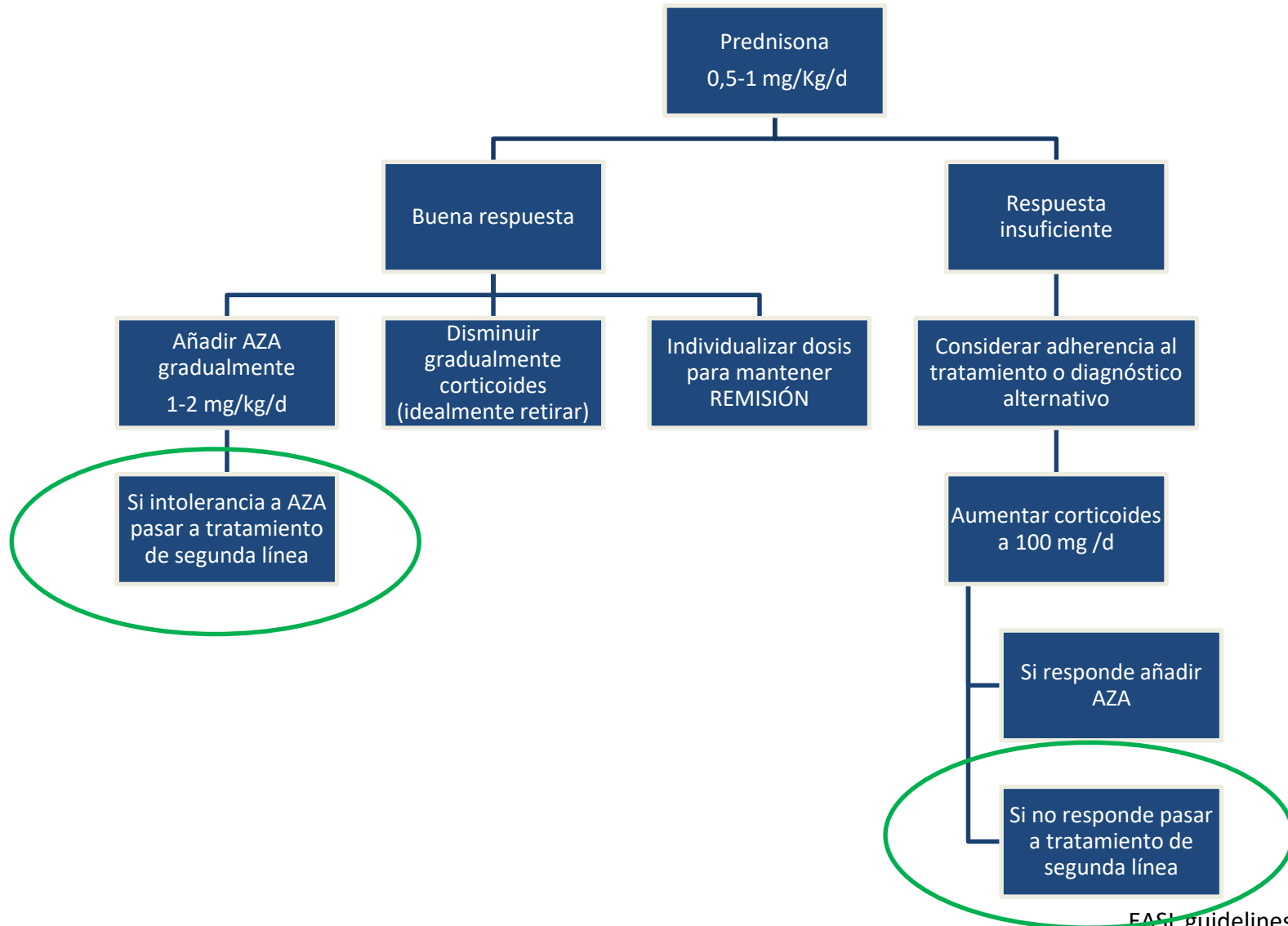


# Y si no responde?

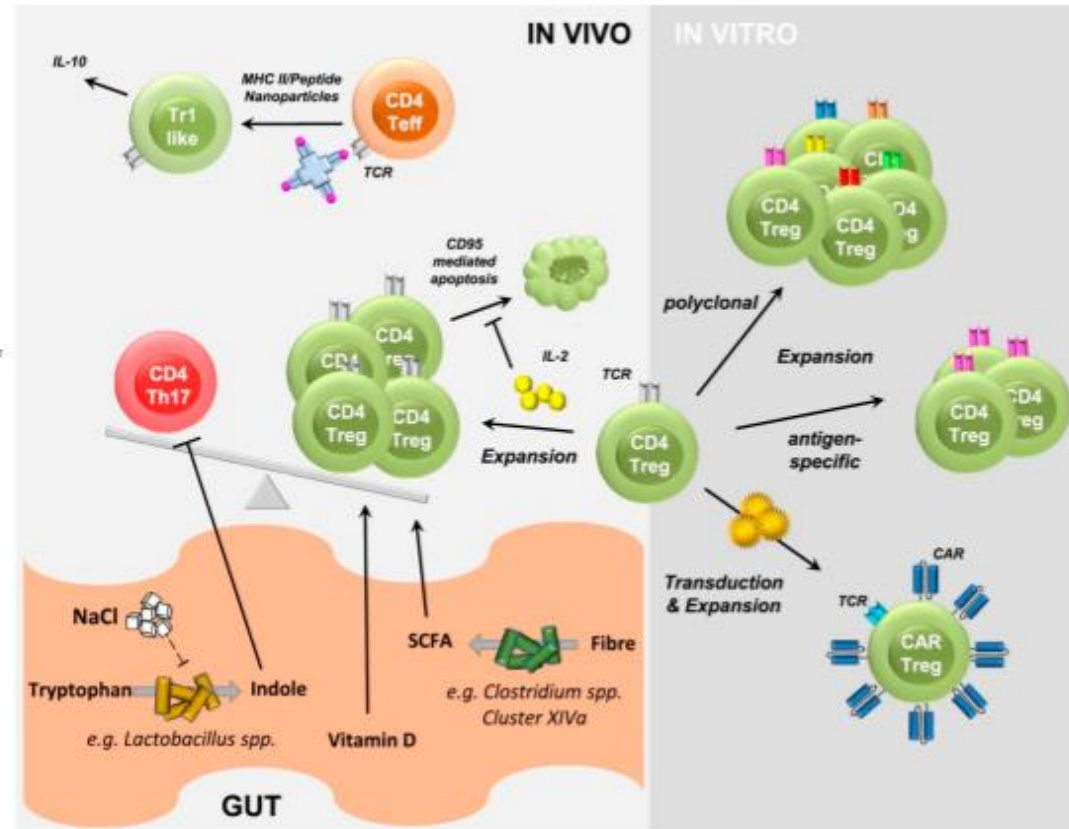
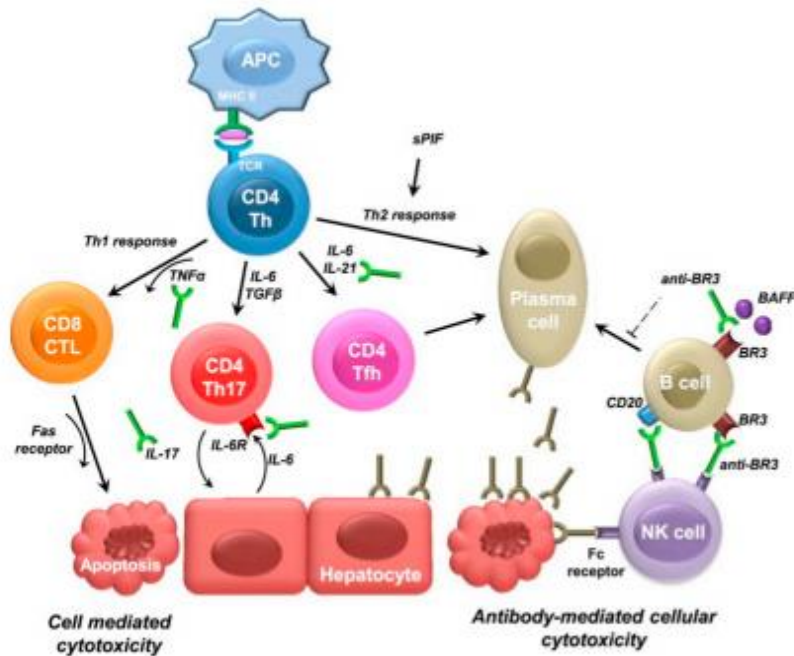




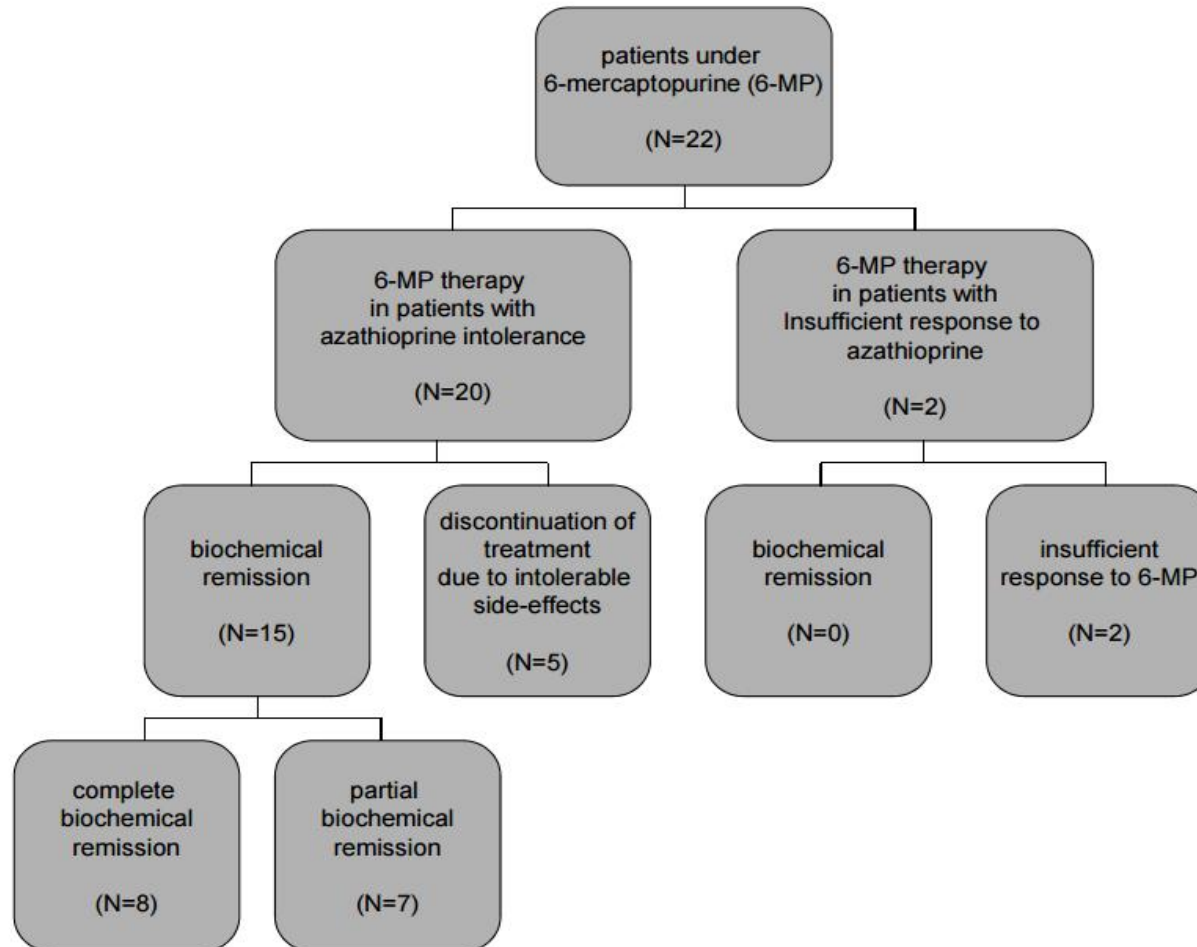
# Y si no responde?



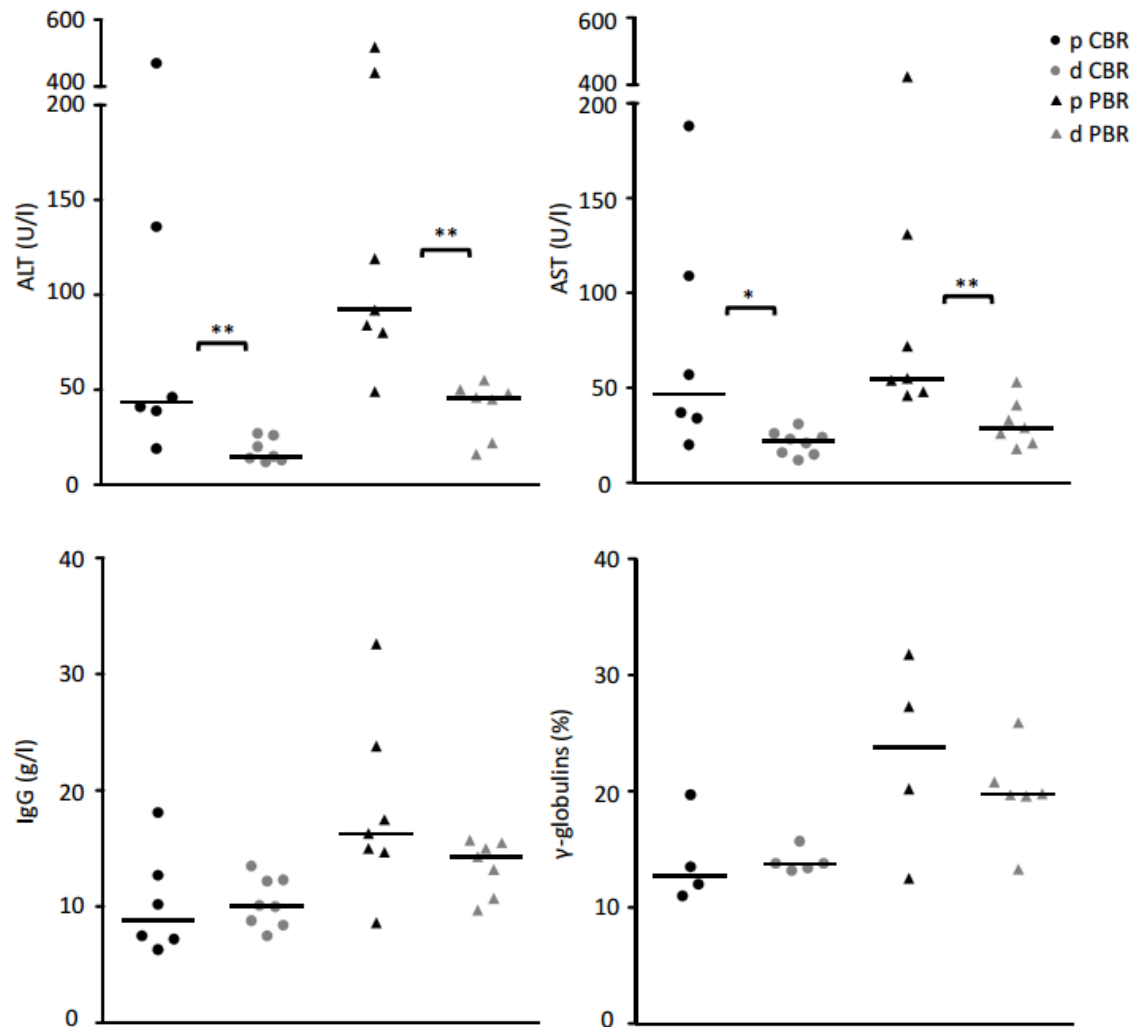
# Tratamiento de Segunda Línea



# Tratamiento de Segunda Línea



# Tratamiento de Segunda Línea

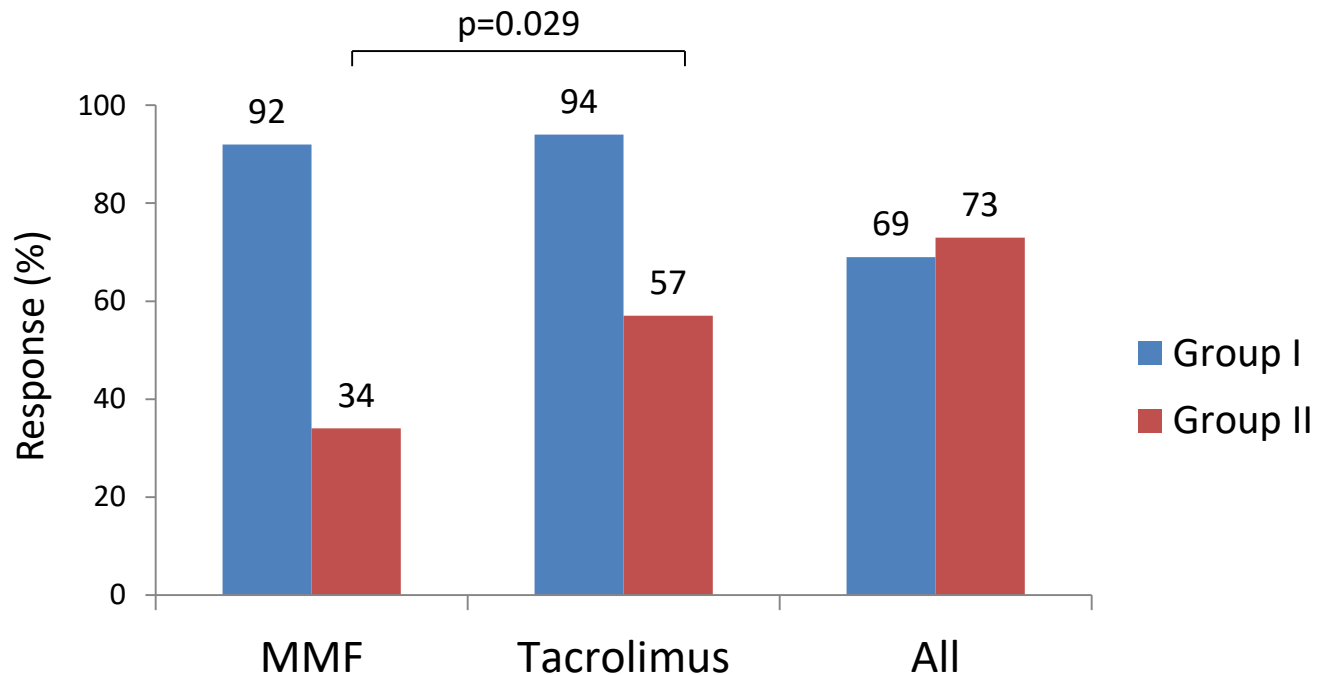


# Tratamiento de Segunda Línea

	Overall n=201	MMF n=121	Tacrolimus n=80
AZA intolerance, n (%)	78 (38.8)	56 (46.3)	22 (27.5)
Steroid side effects n (%)	30 (14.9)	18 (14.9)	12 (15.0)
Non response to standard therapy, n (%)	93(46.3)	47(38.8)	46 (57.5)

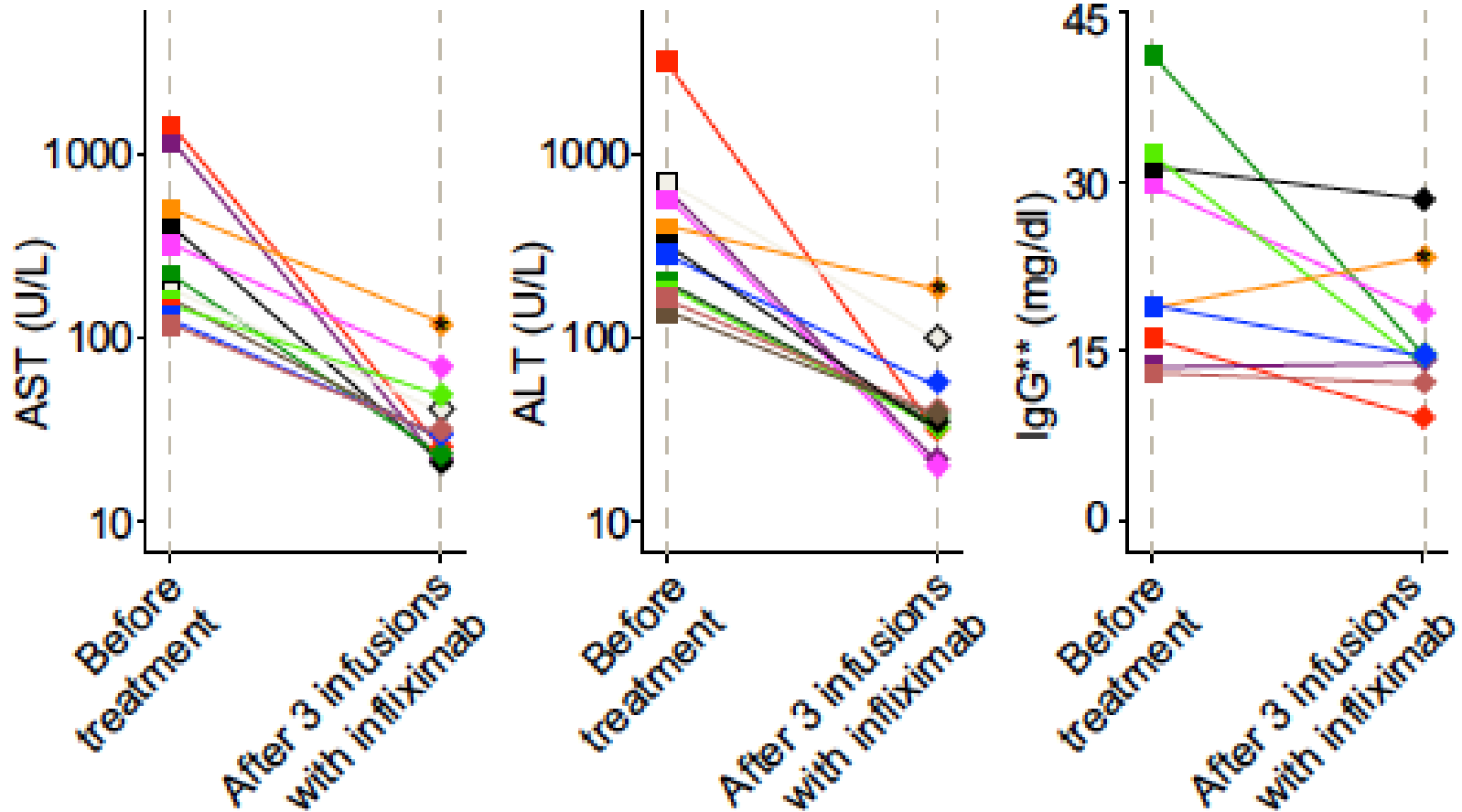
Group I: responded to SOC, switched due to side effects

Group II: insufficient response to SOC



# Tratamiento de Segunda Línea

Infliximab



# Tratamiento de Segunda Línea

## Infliximab

Patient	Cause of infliximab treatment	Complications of treatment	Response to treatment	Duration of treatment	Number of infusions	Prednisolone dose
1*	Cirrhosis, cyclophosphamide hepatitis, flare under ongoing standard treatment	Multiple infectious complications →	Repeated prompt full remission	Treatment ongoing (on/off) since 2001	>>40 infusions	20 mg/d
2	Azathioprine intolerance, MMF intolerance, aggravated depression under steroids	Shingels	Initial remission, flare under ongoing treatment	Treatment stopped after 18 mo due to flare under treatment	14	5 mg/d
3	Azathioprine intolerance, MMF intolerance, cyclophosphamide cumulative dose reached	Pneumonia, recurrent urinary tract infections →	Full remission	Treatment ongoing for 31 mo	22	5 mg/d
4	Steroid-induced diabetes and weight gain, uncontrolled disease with cirrhosis	Pneumonia	Incomplete remission with elevated IgG	Treatment stopped after 8 mo after pneumonia	9	10 mg/d
5	Steroid-aggravated depression, weight gain	Recurrent herpes labialis →	Repeated full remission	Treatment ongoing (on/off) for 24 mo	10	10 mg/d
6	Steroid-refractory flare under treatment	→	Full remission	Stopped after 8 mo due to full remission	6	Steroids tapered out
7	Steroid-induced diabetes, weight gain	→	Full remission	Treatment ongoing for 15 mo	14	10 mg/d
8	Azathioprine intolerance	→	Full remission	Treatment ongoing for 12 mo	7	10 mg/d
9	Azathioprine intolerance	→	Full remission	Treatment ongoing for 15 mo	10	10 mg/d
10	Azathioprine induced pancreatitis	Ocular <i>herpes simplex</i> infection, recurrent urinary tract infections	Partial response	Treatment stopped after 6 mo due to allergic reaction and incomplete response	6	15 mg/d
11	Azathioprine intolerance	→	Full remission	Treatment ongoing for 13 mo	10	10 mg/d

# Tratamiento de Segunda Línea

22 pacientes de Inglaterra, Alemania y Canadá  
Retrospectivo  
Tratamiento con Rituximab  
Respuesta bioquímica a las 24 semanas post-tratamiento  
Reducción de prednisona

Mejoría de transaminasas y albúmina  
No impacto en bilirrubina o INR

Figure 1: Changes in Prednisolone dose post therapy

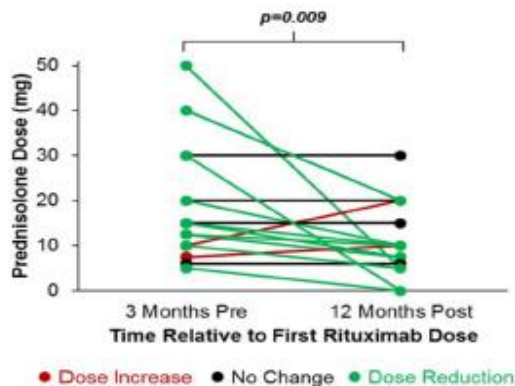
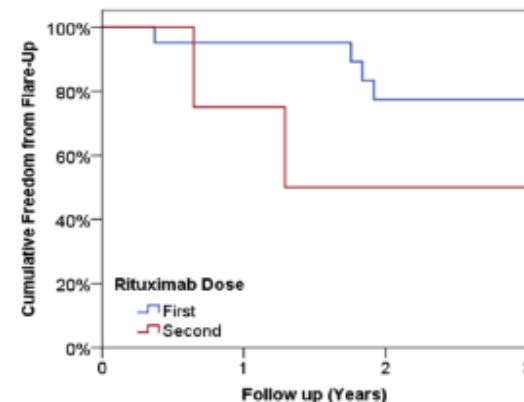


Figure 2: Freedom from flare up following Rituximab therapy





# Tratamiento de Segunda Línea

## Patient Characteristics

Patient Characteristics	Patient 1
Age (years)	20
Sex	Female
Age at diagnosis (years)	13
Duration of disease (years)	7
Serology	SMA <sup>+</sup> (1/160)
IAIHG score	8
Immunosuppression at baseline	Tacrolimus 1 mg q.d. MMF 1 g b.i.d. Prednisolone 15 mg q.d.
Liver histology	Severe AIH with cirrhosis

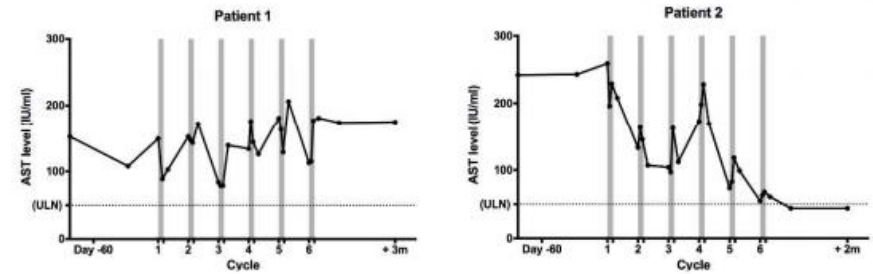
## Baseline serum tests (normal range)

AST (10-50 IU/ml)	149
Globulin (25-35 g/L)	53
IgG (6.3-18.1 g/L)	29.4
Albumin (35-50 g/L)	42
Bilirubin (3-20 μmol/L)	40
Platelet (150-450 × 10 <sup>9</sup> /L)	152
INR (0.90-1.20)	1.17

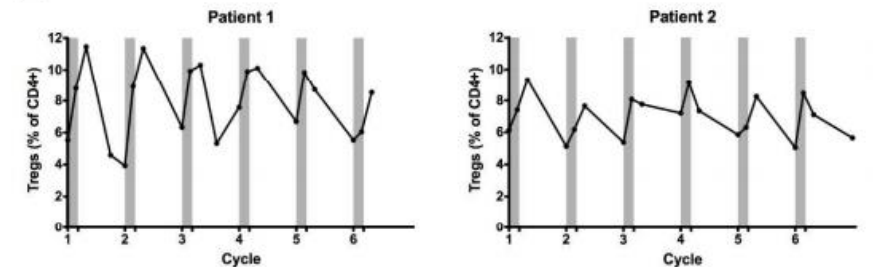
## Serum tests at end of treatment

AST (10-50 IU/ml)	174
Globulin (25-35 g/L)	49
IgG (6.3-18.1 g/L)	30.2
Albumin (35-50 g/L)	37
Bilirubin (3-20 μmol/L)	33
Platelet (150-450 × 10 <sup>9</sup> /L)	132
INR (0.90-1.20)	1.07

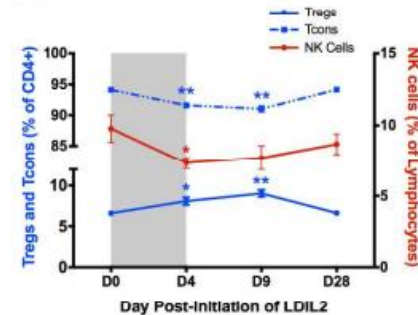
(A)



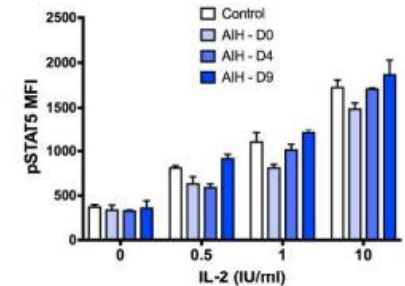
(B)



(C)



(D)



# Tratamiento de Segunda Línea

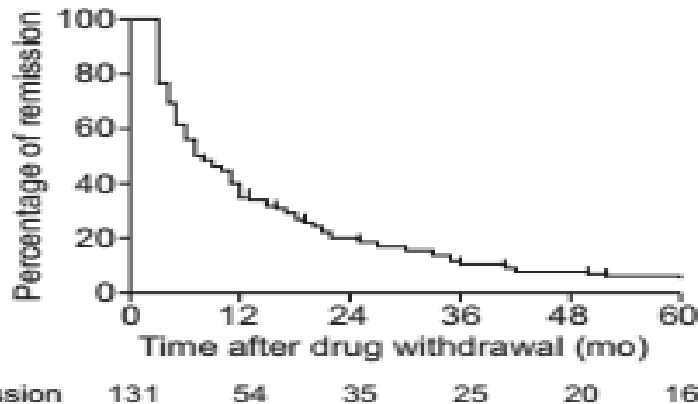
---

- Ianalumab → Inhibidor de BAFF
- Inhibidores de TLR4
- Otras: dieta, probióticos, suplementos de vitamin D
- CAR-Treg cells

# Tratamiento para siempre?

## Relapse is almost universal after withdrawal of immunosuppressive medication in patients with autoimmune hepatitis in remission

Nicole M.F. van Gerven<sup>1,†</sup>, Bart J. Verwer<sup>1,†</sup>, Birgit I. Witte<sup>2,†</sup>, Bart van Hoek<sup>3,†</sup>,  
Minneke J. Coenraad<sup>3,†</sup>, Karel J. van Erpecum<sup>4,†</sup>, Ulrich Beuers<sup>5,†</sup>, Henk R. van Buuren<sup>6,†</sup>,  
Rob A. de Man<sup>6,†</sup>, Joost P.H. Drenth<sup>7,†</sup>, Jannie W. den Ouden<sup>8,†</sup>, Robert C. Verdonk<sup>9,†</sup>,  
Ger H. Koek<sup>10,†</sup>, Johannes T. Brouwer<sup>11,†</sup>, Maureen M.J. Guichelaar<sup>12,†</sup>, Chris J.J. Mulder<sup>1,†</sup>,  
Karin M.J. van Nieuwkerk<sup>1,†</sup>, Gerd Bouma<sup>1,\*†</sup>



137 patients  
- 47% relapsed  
- 42% loose biochemical remission

# Tratamiento para siempre?

## Patient selection based on treatment duration and liver biochemistry increases success rates after treatment withdrawal in autoimmune hepatitis

Johannes Hartl<sup>1</sup>, Hanno Ehlken<sup>1</sup>, Christina Weiler-Normann<sup>1</sup>, Marcial Sebode<sup>1</sup>, Benno Kreuels<sup>1,2</sup>, Nadine Pannicke<sup>1</sup>, Roman Zenouzi<sup>1</sup>, Claudia Glaubke<sup>1</sup>, Ansgar W. Lohse<sup>1</sup>, Christoph Schramm<sup>1,\*</sup>

Variable	Relapse group (n=13)	Remission group (n=15)
Age	41 (20-64)	39 (18-73)
Gammaglobulins (%)	16.9%	12.9%
IgG levels (g/L)	12.7 (9.6-17)	10.3 (5.2-12)
ALT (IU/mL)	20 (14-24)	14.7 (8-17)
Time to achieve remission (months)	5.3 (2-13)	2.7 (1-5)
Cirrhosis, n(%)	2 (15%)	0

# Tratamiento para siempre?

## PREDICTIVE FACTORS

### Favorable

- Age > 40
- No cirrhosis
- Time to remission < 5 months
- Adherence to treatment
- Normal liver tests
- Absence of plasma cells in the liver biopsy

### Unfavorable

- Concomitant autoimmune diseases
- Cirrhosis
- Disease progression during treatment

# Seguimiento

---

- Monitorizar la progresión de la fibrosis
- Estudio de VE en pacientes con cirrosis
- Ecografía semestral para detección de carcinoma hepatocelular en pacientes con cirrosis

# Seguimiento

## Elastografía en Hepatitis Autoinmune

	Histological fibrosis stage		
	F $\geq$ 2 ( $\geq$ 5.8 kPa)	F $\geq$ 3 ( $\geq$ 10.5 kPa)	F = 4 ( $\geq$ 16.0 kPa)
<b>&lt;3 months (n = 34) Group 1</b>			
AUROC	0.68	0.80	0.71
Sensitivity	0.71	0.60	0.60
Specificity	0.66	0.88	0.93
Positive predictive value	0.65	0.75	0.60
Negative predictive value	0.58	0.85	0.93
<b>6-12 months (n = 25) Group 2</b>			
AUROC	0.97	1.00	1.00
Sensitivity	0.94	1.00	1.00
Specificity	0.88	1.00	1.00
Positive predictive value	0.94	1.00	1.00
Negative predictive value	0.88	1.00	1.00
<b>&gt;4 years (n = 27) Group 3</b>			
AUROC	0.94	0.96	1.00
Sensitivity	1.00	0.95	1.00
Specificity	0.77	0.94	1.00
Positive predictive value	0.80	0.80	1.00
Negative predictive value	0.88	0.94	1.00

# Seguimiento

## Elastografía en Hepatitis Autoinmune

- 112 pacientes con cirrosis
- El **59% y 51%** de los pacientes presentaron un **FS inferior** a los puntos de corte habituales para el **diagnóstico de cirrosis**, 14kPa i 12,5kPa, respectivamente
- Los pacientes con HTP presentaban un FS más elevado (9,4 vs 12, 5 kPa)
- Criterios de Baveno útiles para descartar VE. VPN 100% y ahorro de 51% de endoscopias.



# Conclusiones

---

- La hepatitis autoinmune es cada vez más frecuente.
- La respuesta al tratamiento es buena en la mayoría de los casos pero generalmente debe mantenerse de por vida.
- Existe poca evidencia para el tratamiento de segunda línea.
- Los nuevos fármacos en investigación podrían tener un papel en los pacientes sin respuesta al tratamiento habitual