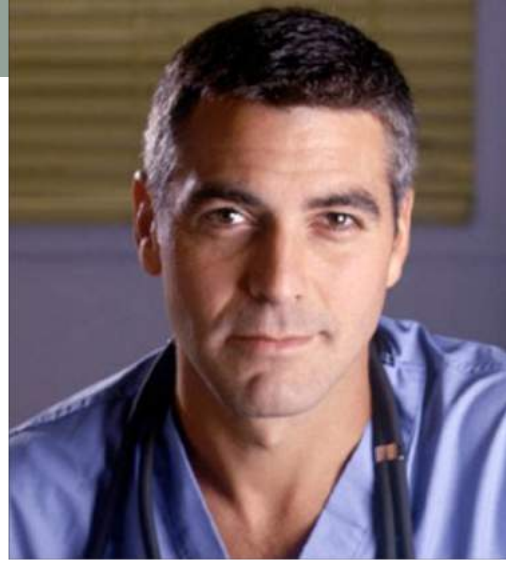
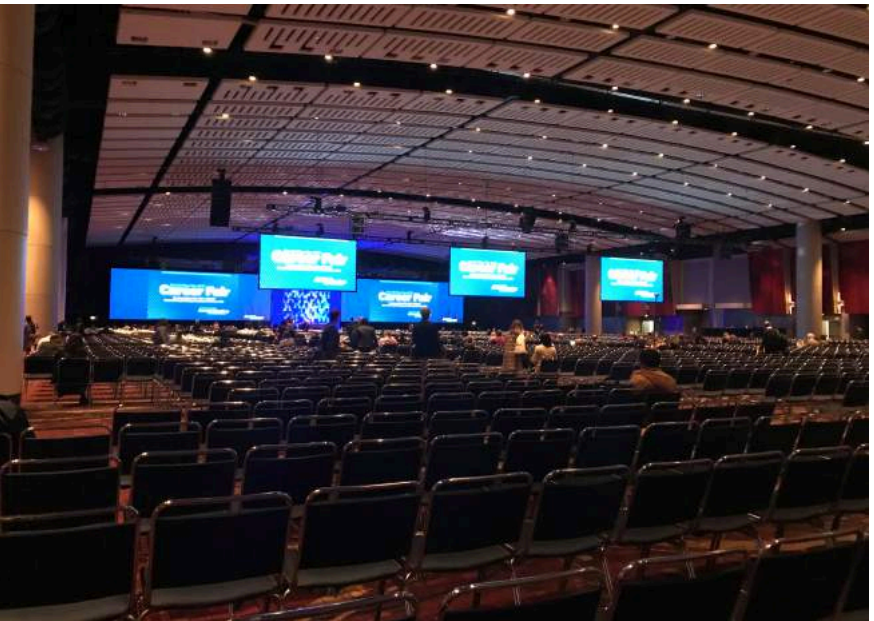


Compte-rendu ACR 2018 - Chicago

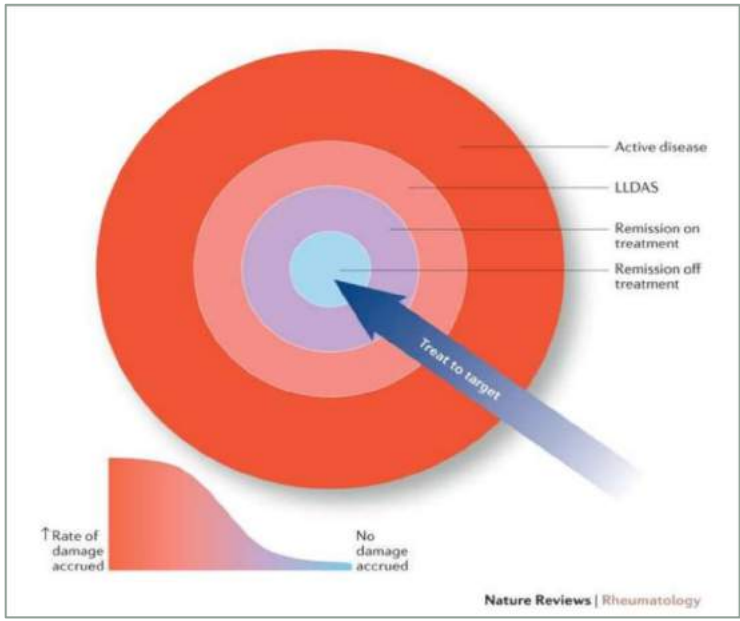


LUPUS

2786 : Prospective validation of the Lupus Low Disease Activity State : a treatment target for SLE

- Objectif traitement :
  - Rémission
  - « Low disease activity »

- Définition Low disease activity (LLDAS)
  - Activité :
    - SLEDAI≤ 4 (pas d'atteinte d'organe majeur)
    - Pas de nouvelle activité
    - PGA ≤ 1
  - Traitement :
    - Prednisone ≤ 7,5 mg
    - Immunosuppression standard



- Objectif étude : validation prospective longitudinale

13 centres, 8 pays

Inclusion :
SLE (SLICC/ ACR)
> 18 ans
Consentement

Recueil :
SLEDAI-2k
PGA
Traitements
Biologie

Outcomes :
Dommage (SDI)
Poussées (SFI)

1735 patients
Durée de suivi : 2,2 ans

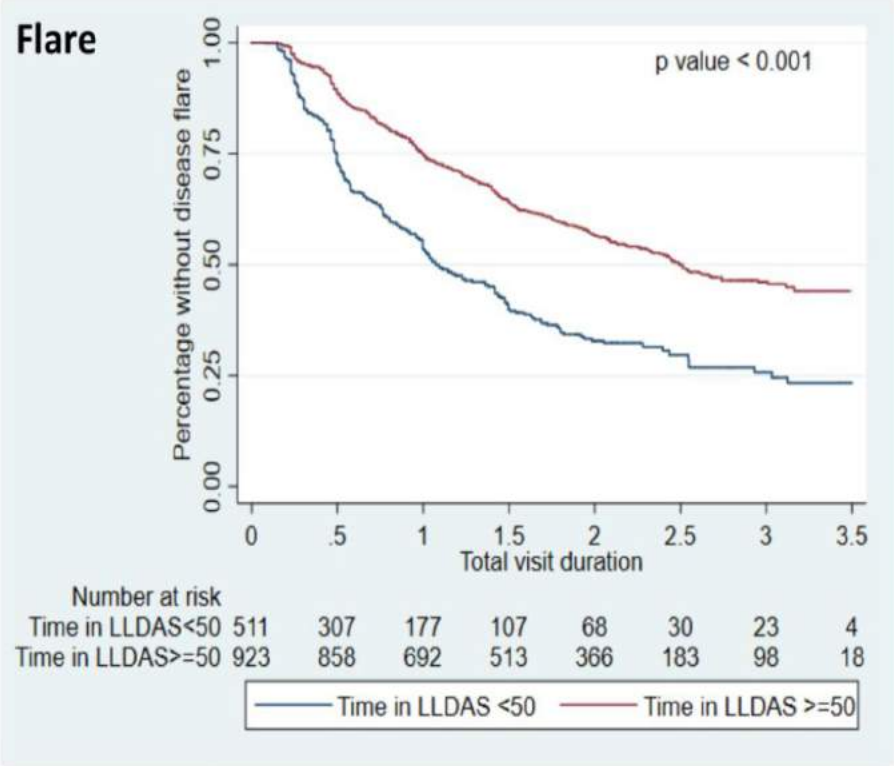
Patients en LLDAS :
- Patients avec au moins un épisode de LLDAS : 1352 (78%)
- Patients avec LLDAS soutenue (≥3 mois): 1160 (67%)

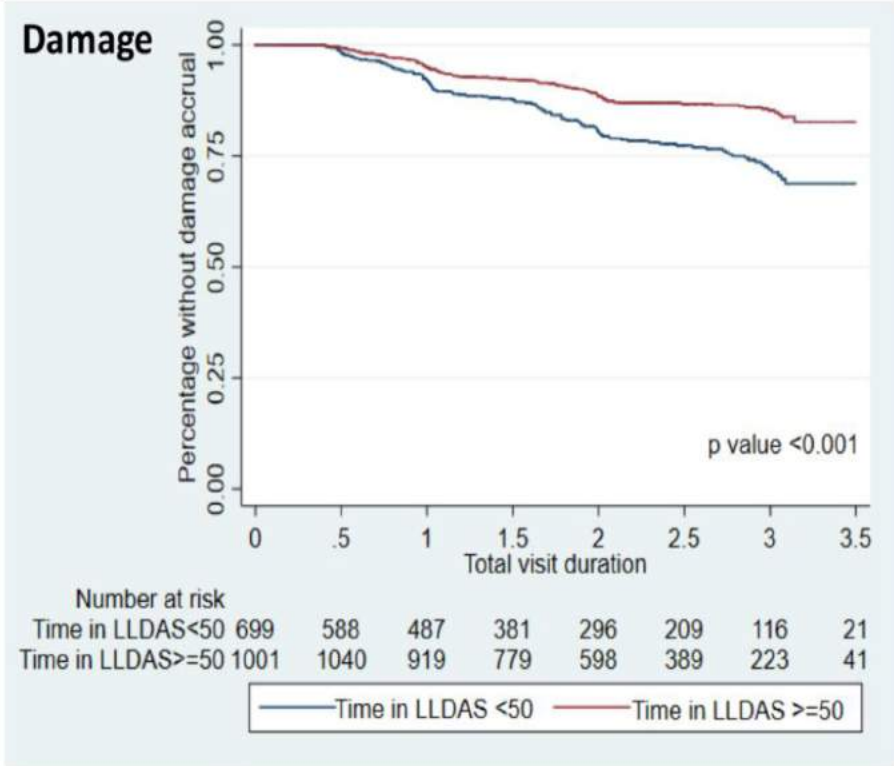
L'état de faible activité est protecteur vis à vis des poussées et des dommages

Outcome	Time-dependent proportional hazards model (independent variable: in LLDAS (Yes/No))		
	HR	95% CI	p value
Flare (any) at subsequent visits	**0.65**	**0.56 – 0.76**	**<0.001**
Flare (mild-moderate) at subsequent visits	0.74	0.63 – 0.87	<0.001
Flare (severe) at subsequent visits	0.41	0.34 – 0.51	<0.001
Damage accrual	**0.55**	**0.43 – 0.70**	**<0.001**

Effect of Cumulative LLDAS:

LLDAS ≥ 50% reduces flare and damage accrual



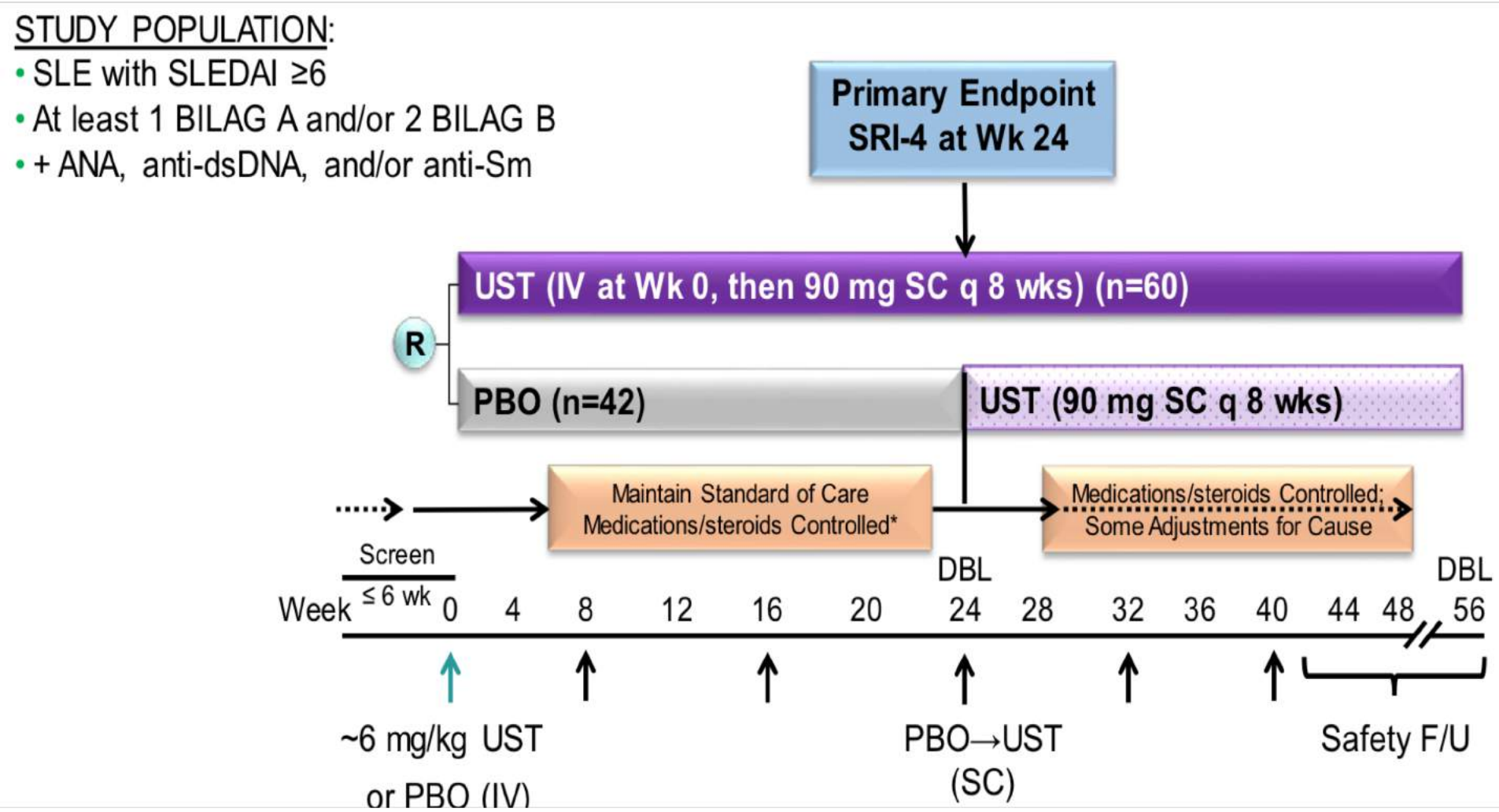


Outcome	Time-dependent proportional hazards model % time (<50% vs ≥50%)		
	HR	95% CI	p value
Flare	0.49	0.42-0.58	<0.001

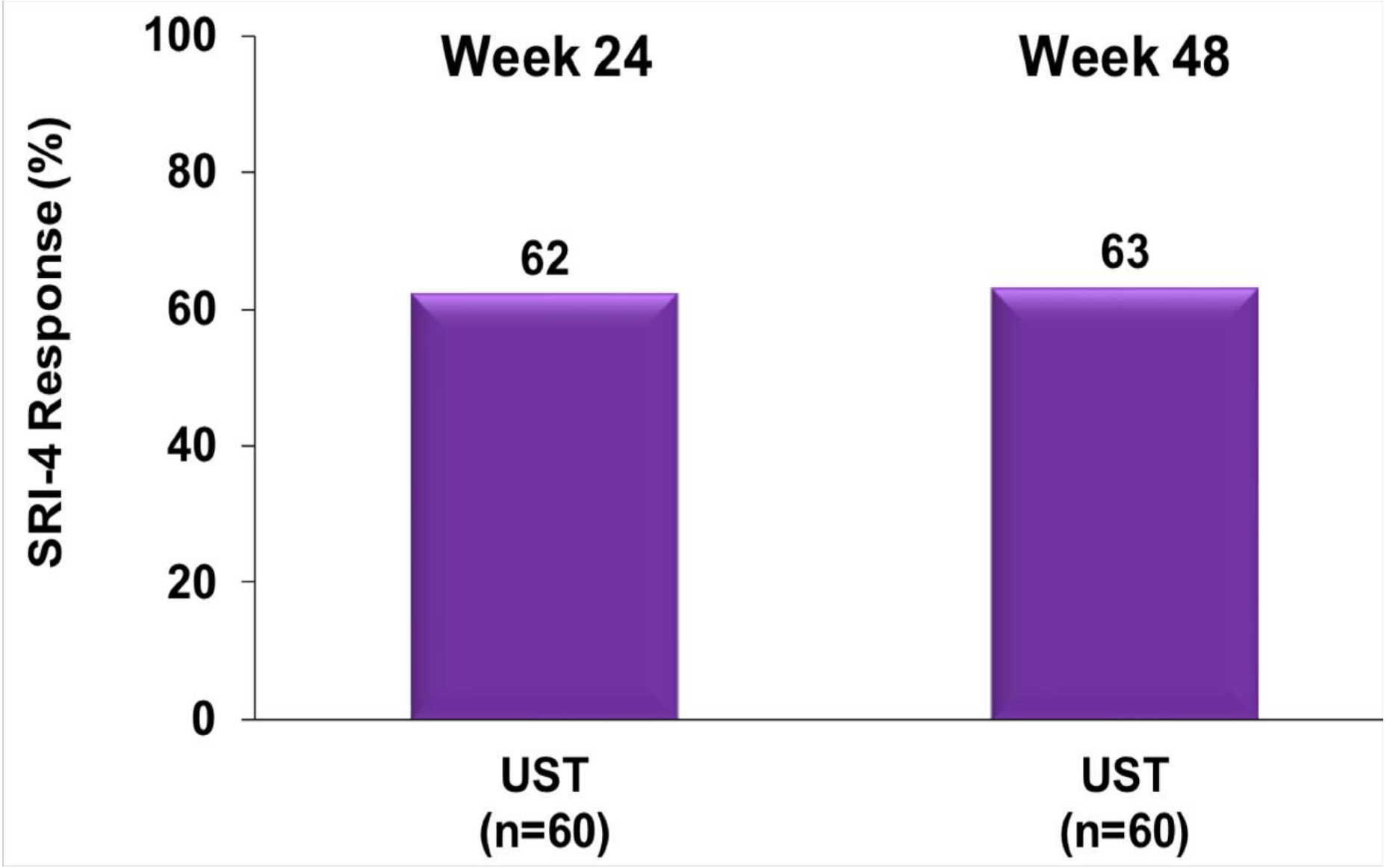
Outcome	Time-dependent proportional hazards model % time (<50% vs ≥50%)		
	HR	95% CI	p value
Damage	0.53	0.41-0.68	<0.001

LLDAS > 3 mois est suffisant pour réduire la survenue de séquelles

2785 : Efficacity and Safety of Ustekinumab in patients with active SLE : Phase 2 trial



2785 : Efficacity and Safety of Ustekinumab in patients with active SLE : Phase 2 trial



2785 : Efficacity and Safety of Ustekinumab in patients with active SLE : Safety

	PBO-Controlled Period Through Week 24		Through 1 year
	PBO	UST	All UST (UST+ PBO→UST)
Treated patients, n	42	60	93
Duration of follow-up, weeks	23.4	23.4	38.0
Patients with ≥1 TEAE, n (%)	29 (69.0)	47 (78.3)	76 (81.7)
Patients with ≥1 SAE, n (%)	4 (9.5)	5 (8.3)	14 (15.1)
Patients with ≥1 infection, n (%)	21 (50.0)	29 (48.3)	56 (60.2)
Patients with ≥1 serious infection, n (%)	0 (0)	2 (3.3)	7 (7.5)
Patients with ≥1 DCAE, n (%)	4 (9.5)	4 (6.7)	6 (6.5)

→ Phase 3

970 : Baracitinib in SLE : Phase 2, randomized, double blind, placebo-controlled study

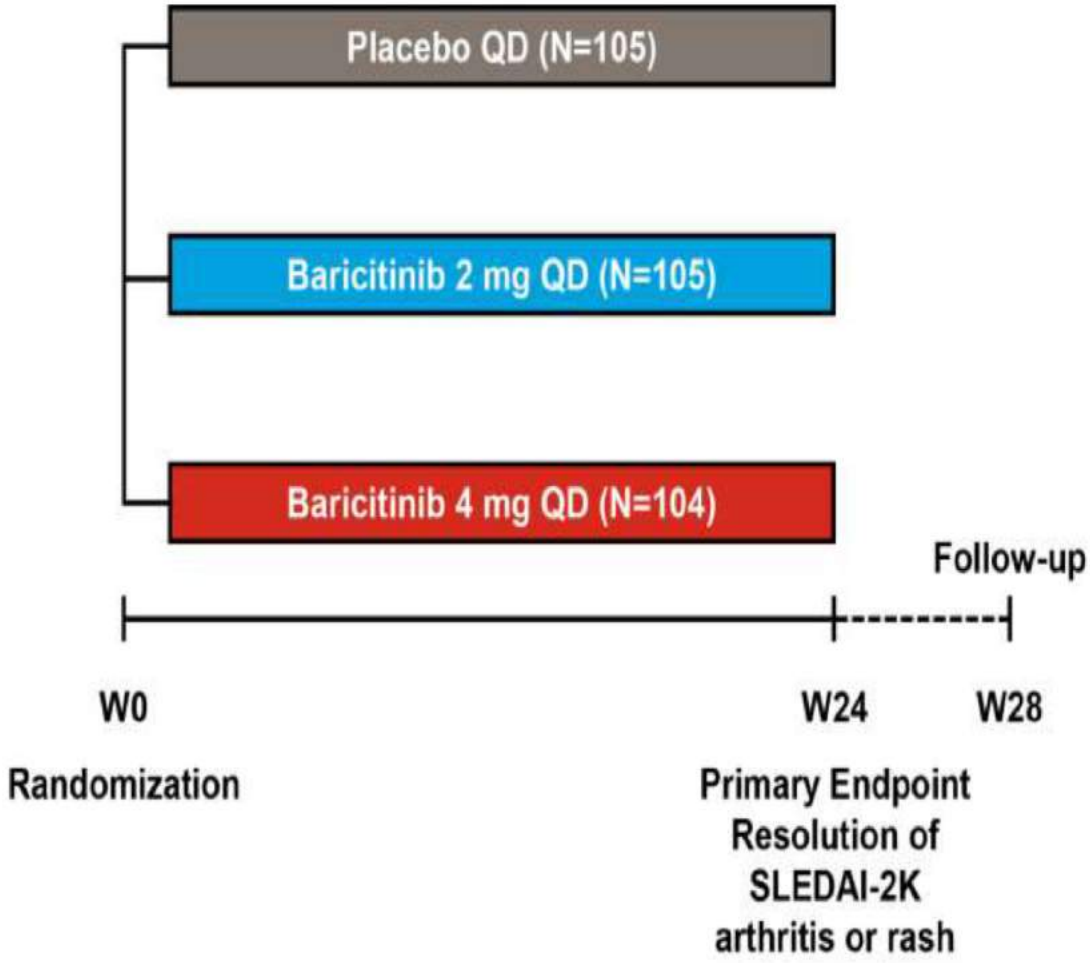
Study Design

Key inclusion criteria

- Positive ANA and/or anti-dsDNA
- SLEDAI-2K clinical score ≥4
- Active SLEDAI-2K arthritis and/or rash

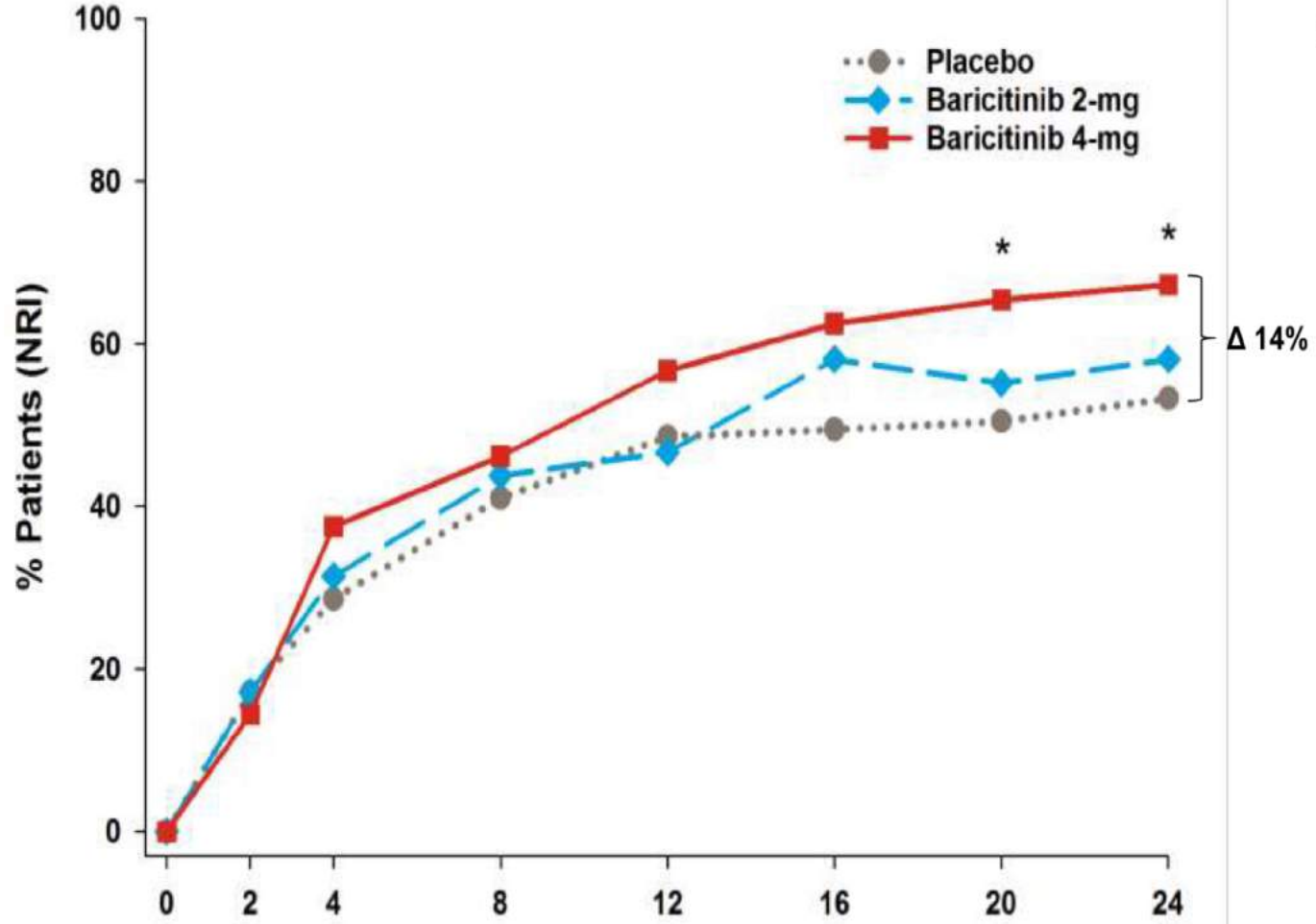
Key exclusion criteria

- Severe active lupus nephritis or CNS lupus

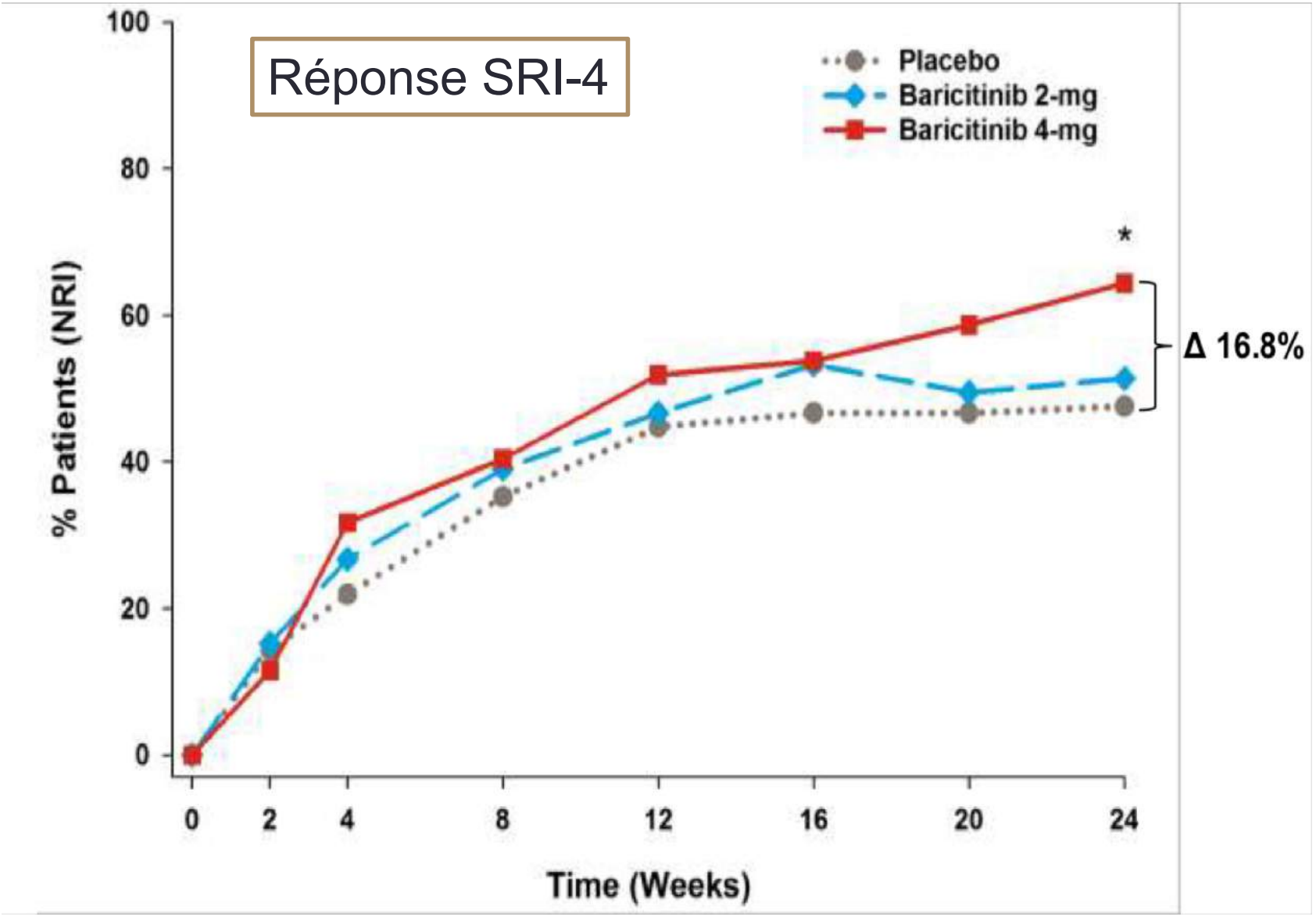


970 : Baracitinib : Phase 2 study

Resolution of Arthritis or Rash (SLEDAI-2K)



970 : Baracitinib : Phase 2 study



970 : Baracitinib : Phase 2 study (Safety)

Weeks 0-24[a]	Placebo (N=105)	Baricitinib 2-mg (N=105)	Baricitinib 4-mg (N=104)
SAEs	5 (4.8)	11 (10.5)	10 (9.6)
TEAEs	68 (64.8)	75 (71.4)	76 (73.1)
Mild	36 (34.3)	35 (33.3)	38 (36.5)
Moderate	29 (27.6)	35 (33.3)	31 (29.8)
Severe	3 (2.9)	5 (4.8)	7 (6.7)
Infections	41 (39.0)	47 (44.8)	47 (45.2)
Serious infections	1 (1.0)	2 (1.9)	6 (5.8)
Herpes Zoster	1 (1.0)	0	1 (1.0)
Tuberculosis	0[b]	0	0
Malignancy	0	0	0
DVT	0	0	1 (1.0)[c]
MACE[d]	0	0	0
Discontinuation due to AE	4 (3.8)	10 (9.5)	11 (10.6)
Treatment interruption due to AE	11 (10.5)	7 (6.7)	21 (20.2)
Death	0	0	0

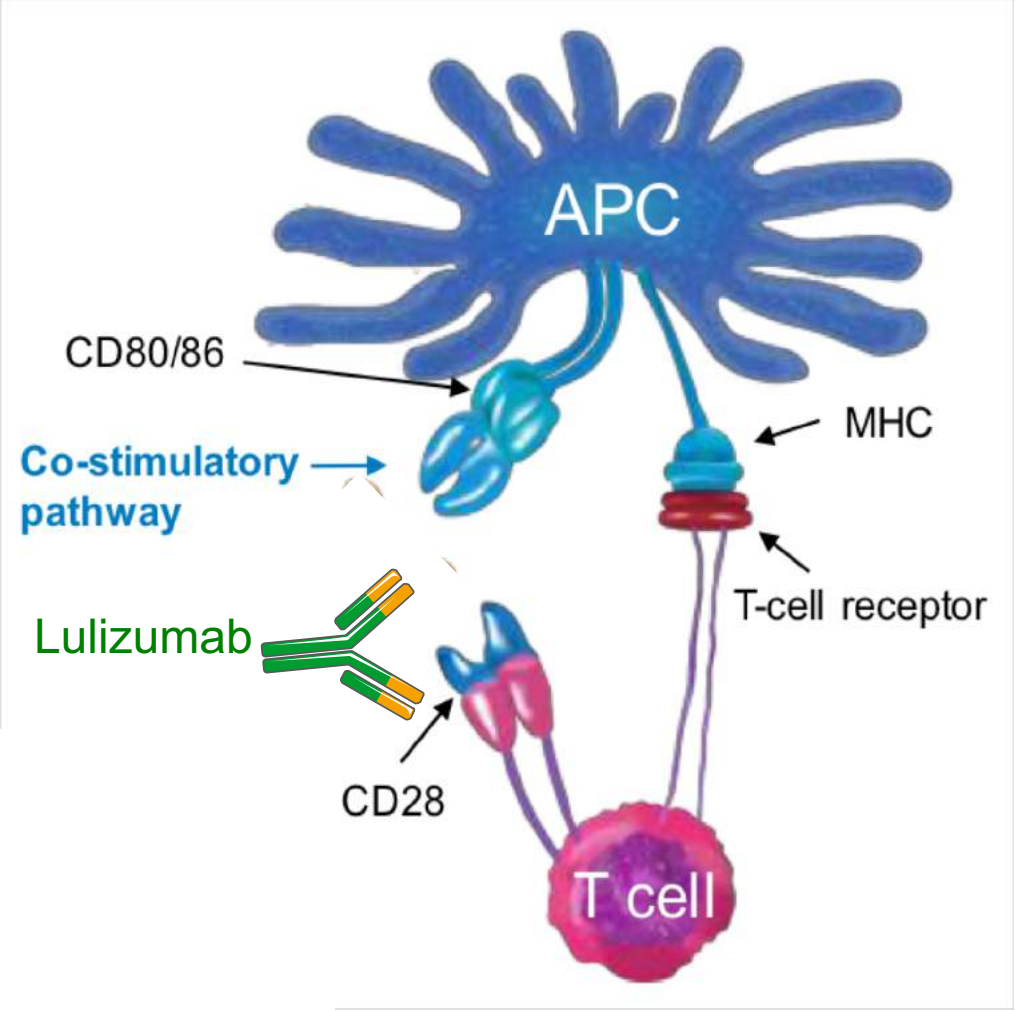
Diminution PNN et Hb
Augmentation CPK, plaquettes
Augmentation cholesterol

972 : Lulizumab (anti-CD28) Phase 2 Study in SLE

- Anticorps anti-CD28 => inhibition activation LT

- Essai multicentrique, randomisé, double aveugle
- Lupus avec atteinte cutanée et/ou articulaire BILAG A/B
- 5 bras :
  - Lulizumab : 1,25 / 5 / 12,5 mg/2 semaines SC
  - Lulizumab 12,5 mg/semaine SC
  - Placebo SC

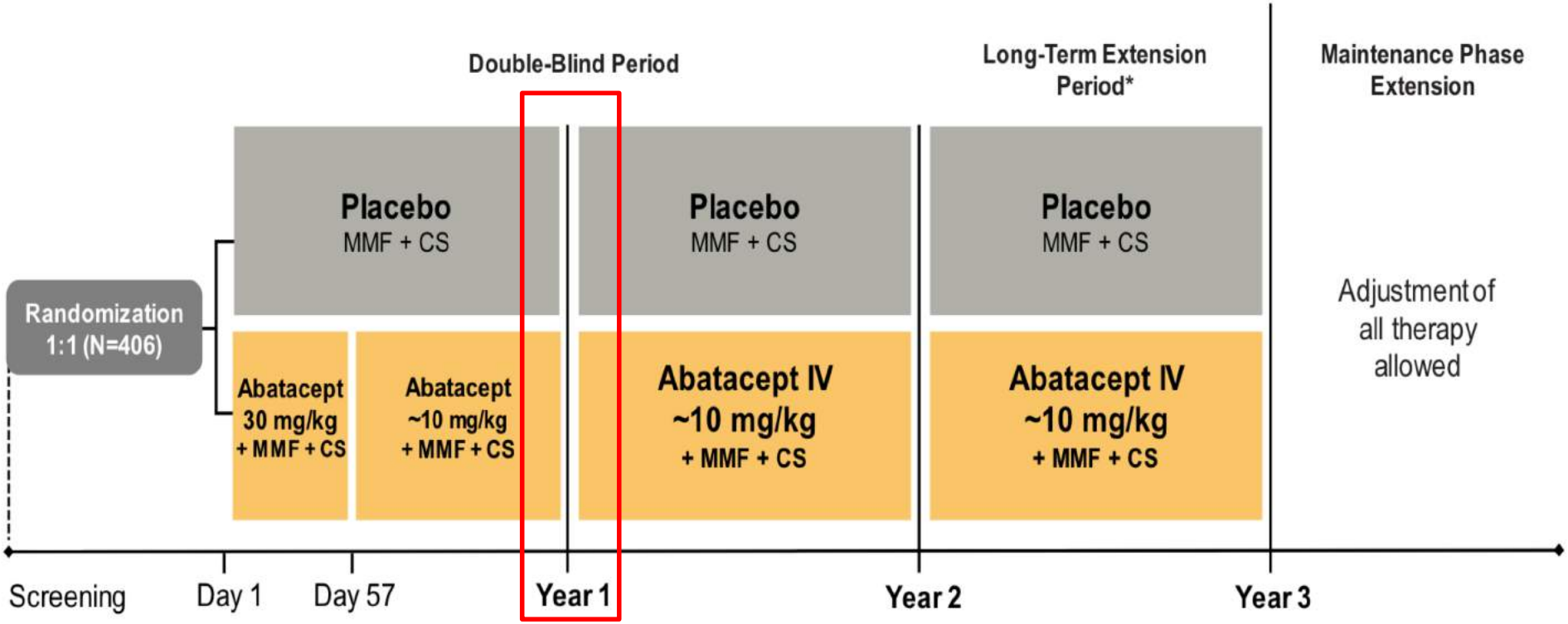
- Critère de jugement : proportion de répondeurs selon BICLA à la semaine 24



972 : Lulizumab (anti-CD28) Phase II Study

- 349 patients (= 68-71/bras)
- Pas de différence dans la réponse BICLA :
  - Placebo : 59,2%
  - Lulizumab : 57,4 - 63,2%
- Autres critères (CLASI, SLEDAI changes, SRI) : pas de différence

971 : Abatacept : Phase III study in active class III or IV lupus nephritis



Key inclusion criteria
- LN Class III or IV (±V)
- UPCR ≥1

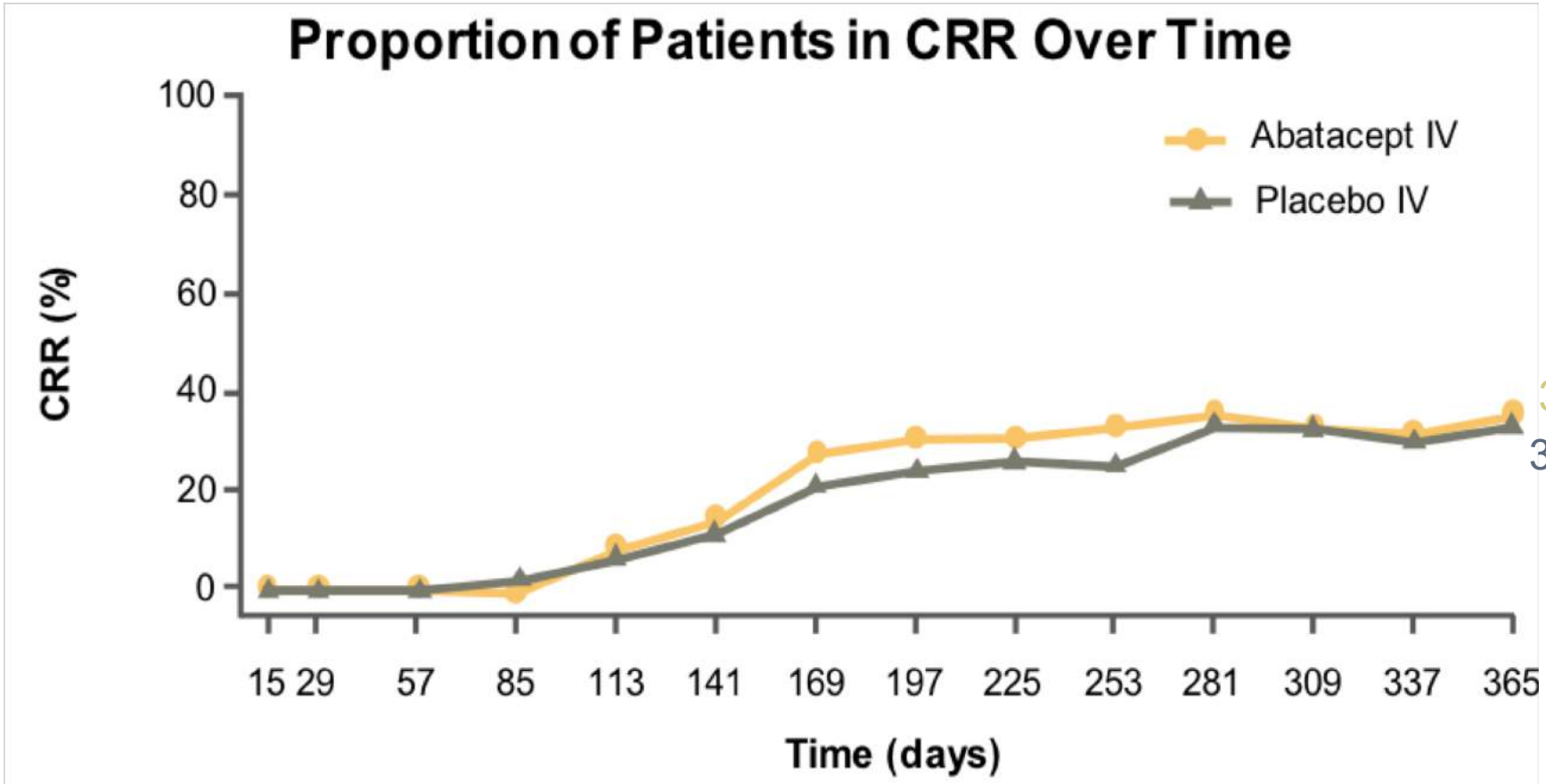
Abatacept/placebo dosing
- IV, every 28 days

Primary endpoint (Day 365)
- Complete renal response

Secondary endpoints (Day 365)
- Complete renal response for nephrotic patients
- Change in UPCR in nephrotic patients and overall population

971 : Abatacept : Phase III study in active class III or IV lupus nephritis

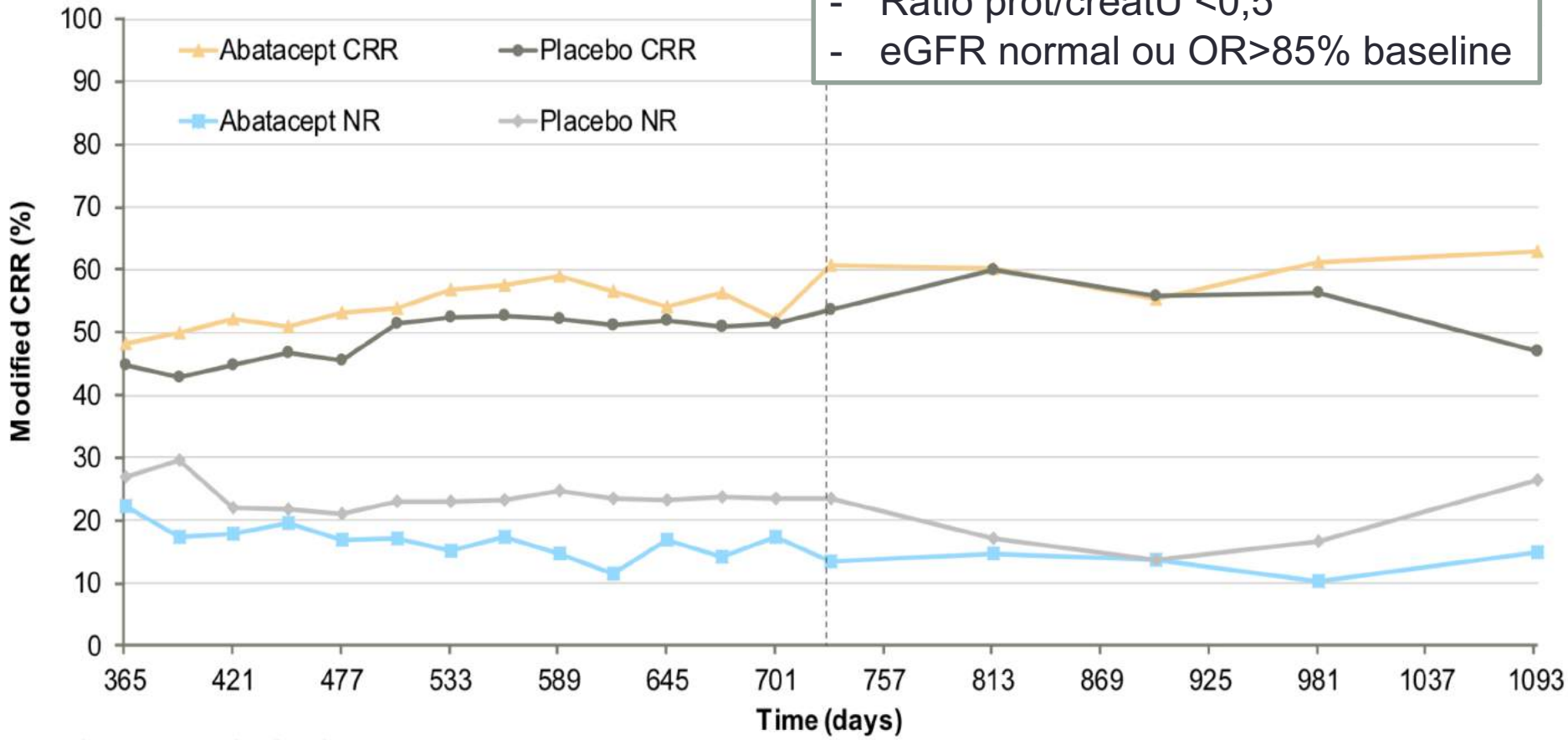
CRR :
- Ratio prot/créatU <0,5
- eGFR normal ou OR>85% baseline
- Pas de cylindre
- CTC<10 mg/j



971 : Abatacept : Phase III study in active class III or IV lupus nephritis

Modified Complete Renal Response and Non-Response for Years 2 and 3

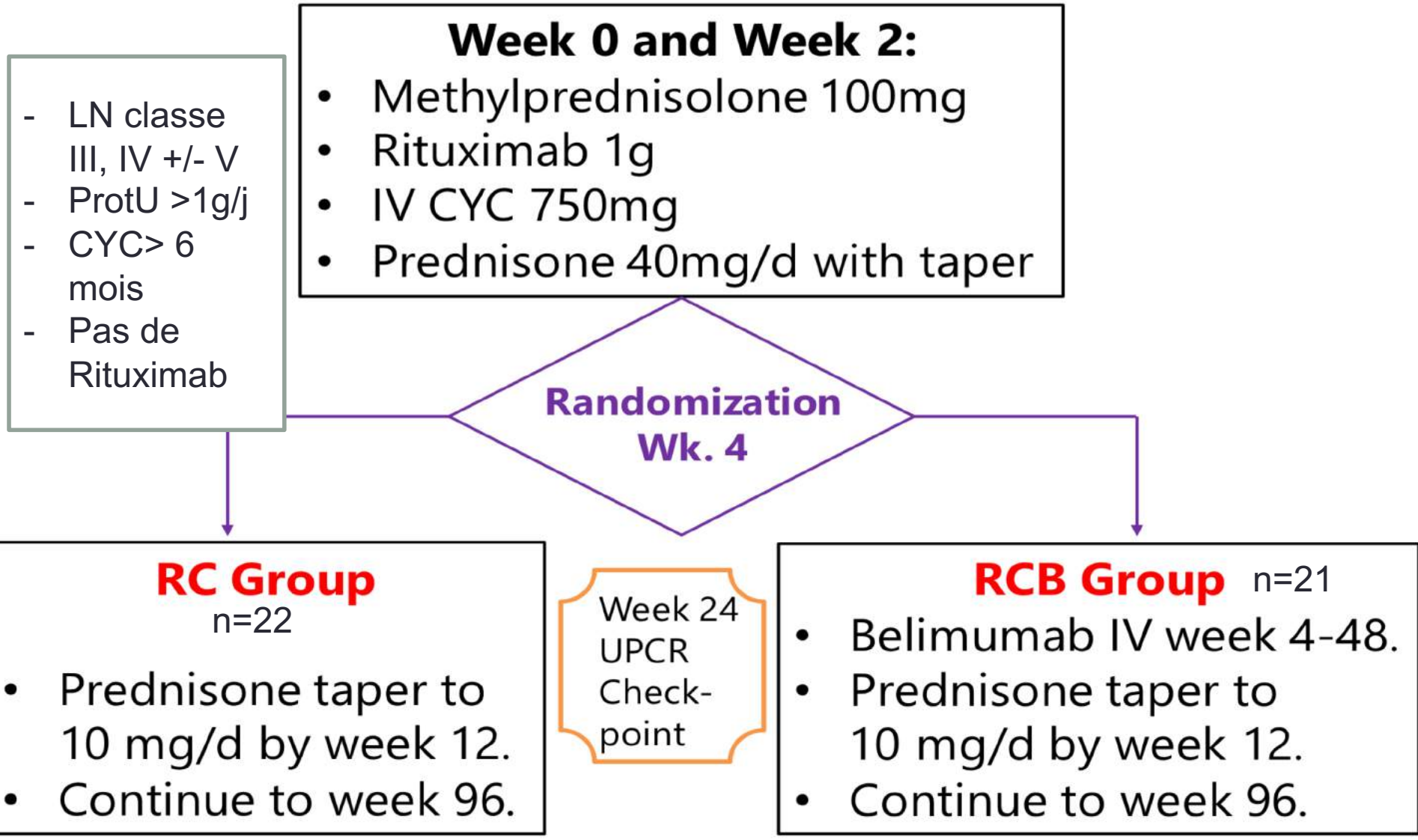
Modified CRR :
- Ratio prot/créatU <0,5
- eGFR normal ou OR>85% baseline



Number of patients in modified CRR for Year 2 and Year 3

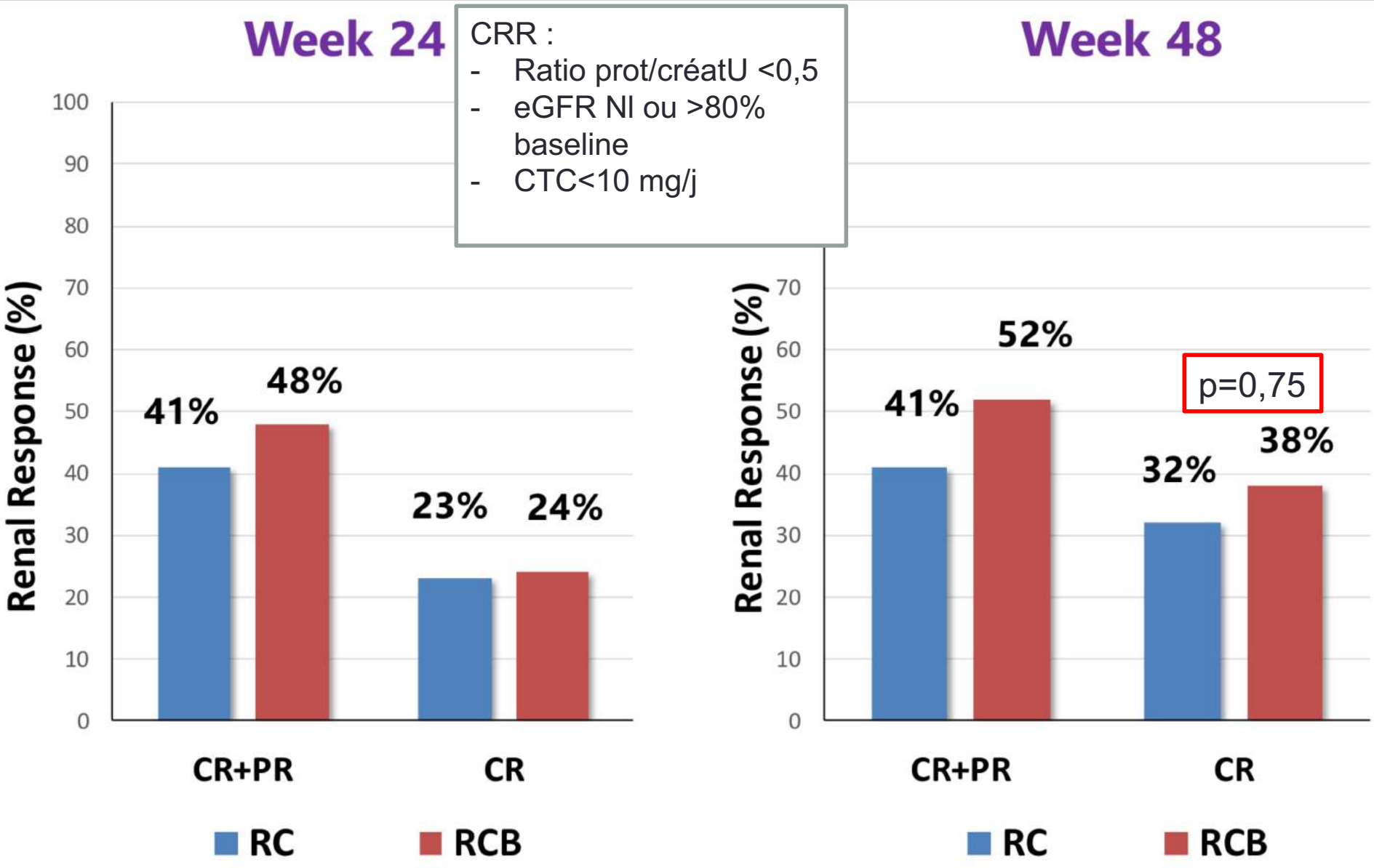
Abatacept IV	158	144	146	149	147	145	139	139	137	129	124	119	115	112		68		58		49		27
Placebo IV	163	156	154	152	147	144	143	146	142	137	129	118	115	110		70		59		48		34

1870 : Induction therapy with Rituximab followed by maintenance therapy with Belimumab in active LN



1870 : Induction therapy with Rituximab followed by maintenance therapy with Belimumab in active LN

CRR :
- Ratio prot/créatU <0,5
- eGFR Nl ou >80% baseline
- CTC<10 mg/j



1870 : Induction therapy with Rituximab followed by maintenance therapy with Belimumab in active LN

- Pas de reconstitution B dans groupe Belimumab (vs 25% groupe Rituximab seul)

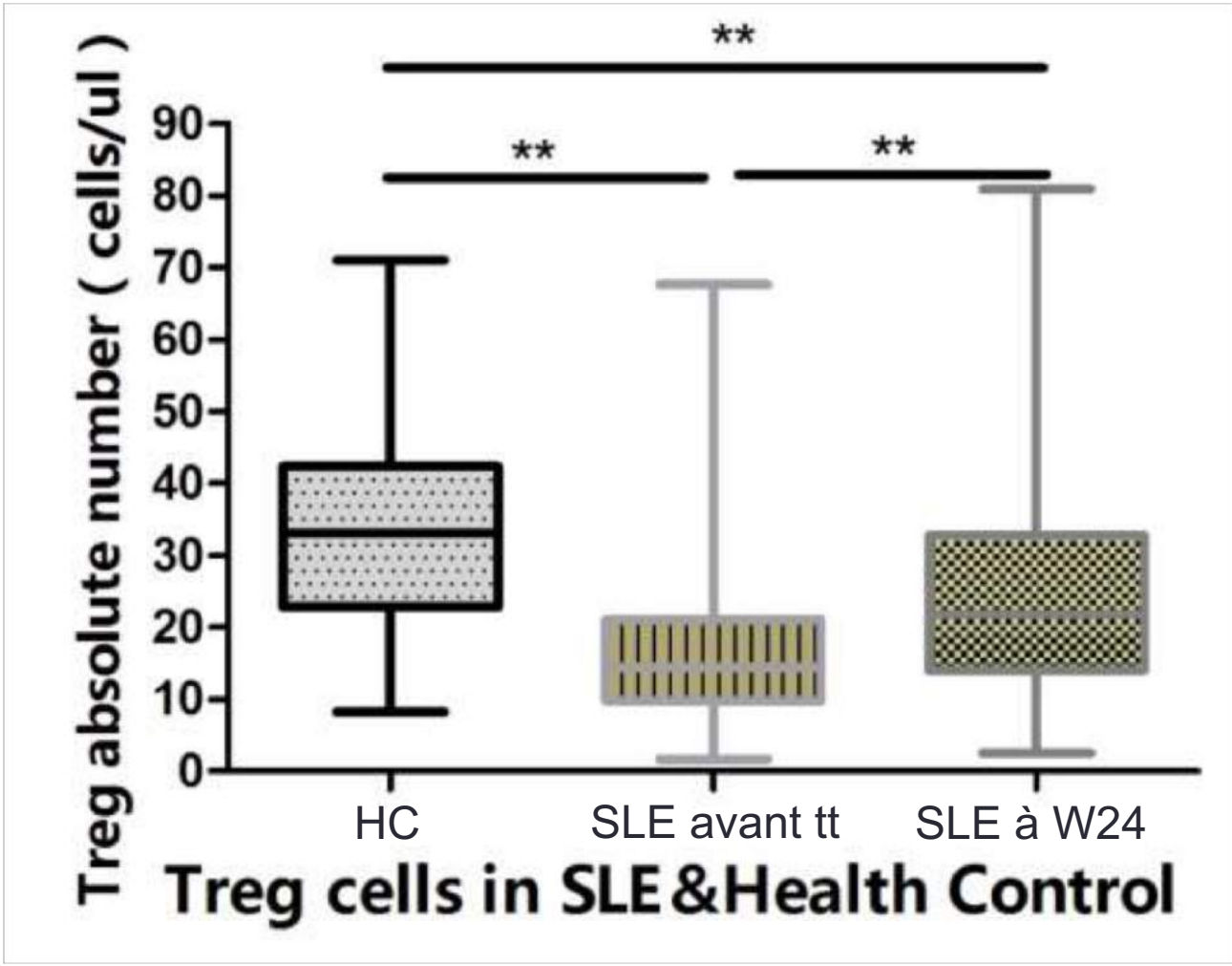
- Infections graves : Pas de différence significative

	RC (N=22)	RCB (N=21)	P value
Subjects with ≥ 1 grade 3 or higher infectious AE through week 48	5 (23%)	2 (9%)	0.254

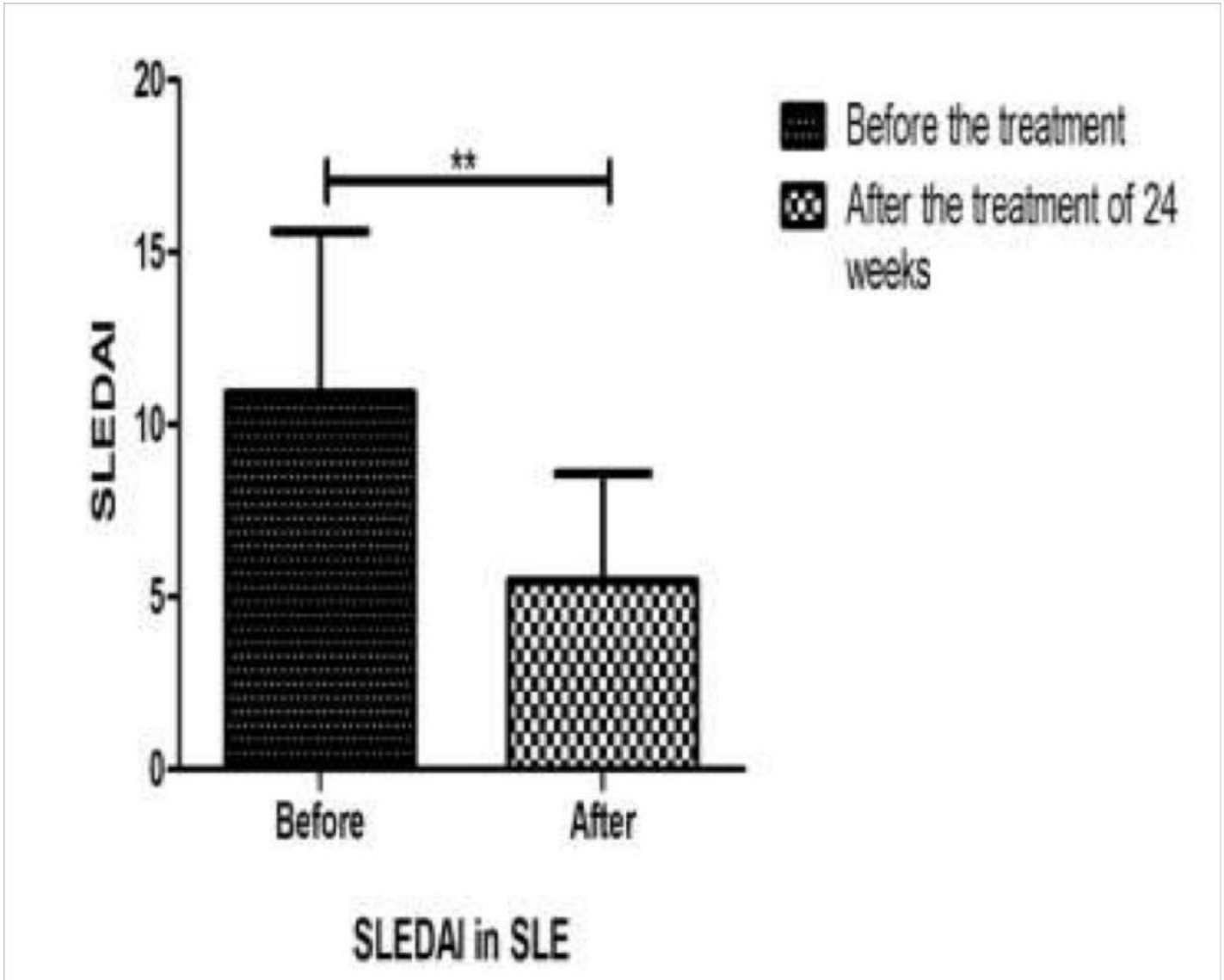
973 : Low dose IL2 combined with Rapamycin in refractory SLE

- Rationnel :
  - Maladie autoimmune: déséquilibre balance Treg/ Th17
  - Administration IL2 : augmentation population Treg
  - Ajout Rapamycine : maintien activité inhibitrice des Treg
- Objectif : Etude effet IL2/Rapamycine sur balance T reg/Th17
- Comparaison 70 sujets sains / patients avec lupus réfractaire
- IL2 50 MIU/jour 5-7jours par mois + Rapamycine 0,5 mg 2 fois par semaine

973 : Low dose IL2 combined with Rapamycin in refractory SLE



973 : Low dose IL2 combined with Rapamycin in refractory SLE



973 : Low dose IL2 combined with Rapamycin in refractory SLE

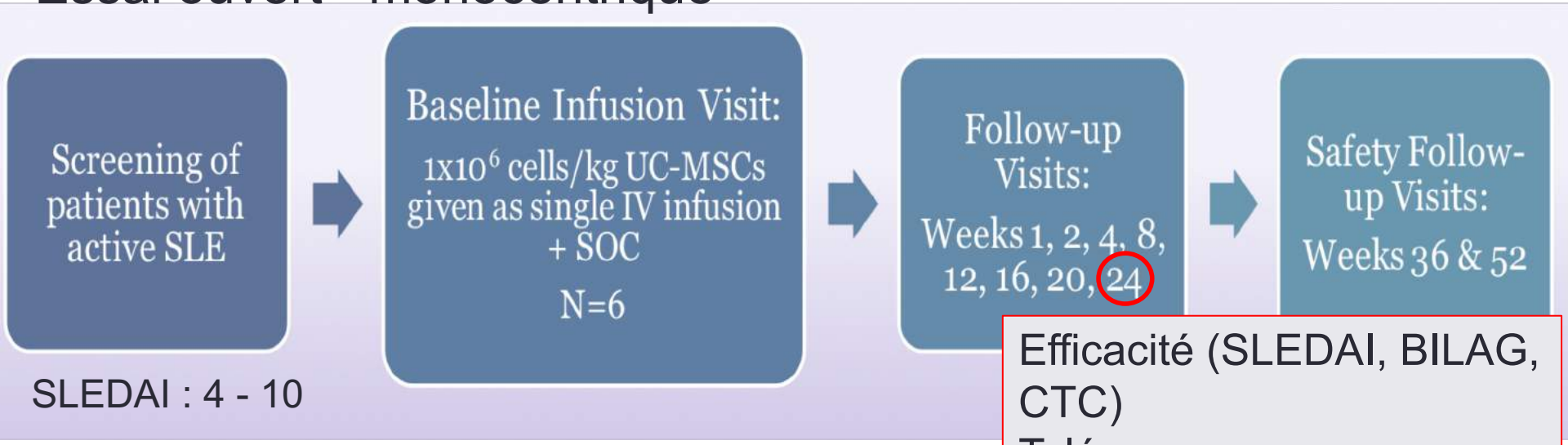
Drugs	PERD(g)	HCQ(g)	MMF(g)
Before the treatment	18.64±11.48	0.39±0.06	0.28±0.19
6 weeks after the treatment	17.66±8.67[a]	0.38±0.06	0.25±0.09
12 weeks after the treatment	11.08±7.24[ab]	0.36±0.08	0.19±0.07
24 weeks after the treatment	8.80±4.54[ab]	0.35±0.09	0.15±0.07[a]
P	0.006	0.077	0.044

1872 : Safety and efficacy of Allogeneic Umbilical Cord- derived Mesenchymal Stem cells

- Cellules souches mésenchymateuses (CSM):
  - Inhibition activation/prolifération lymphocytaire
  - Augmentation développement lymphocytes T reg
  - Inhibition production cytokines pro-inflammatoires

- CSM patients lupiques : diminution capacités inhibitrices

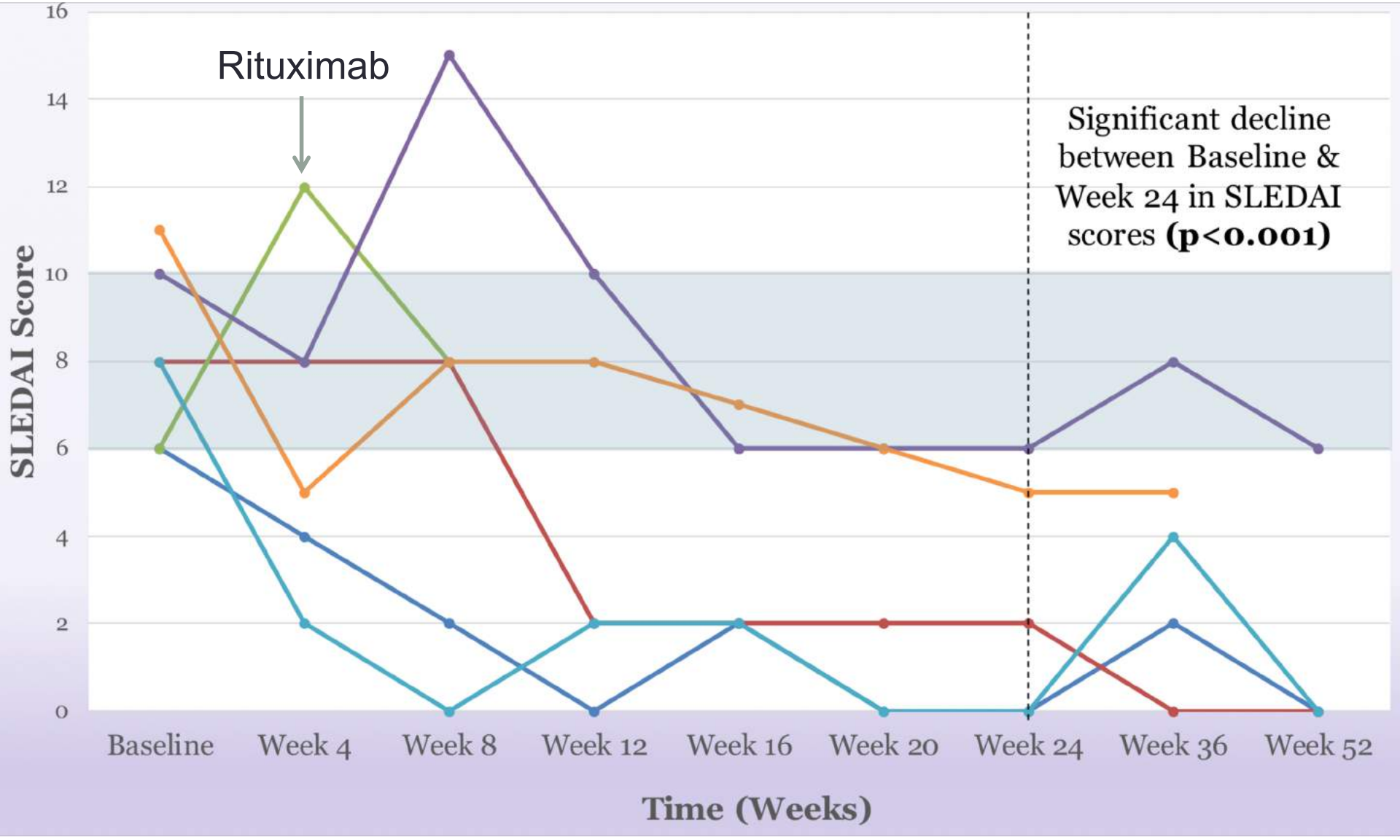
Essai ouvert - monocentrique



SLEDAI : 4 - 10

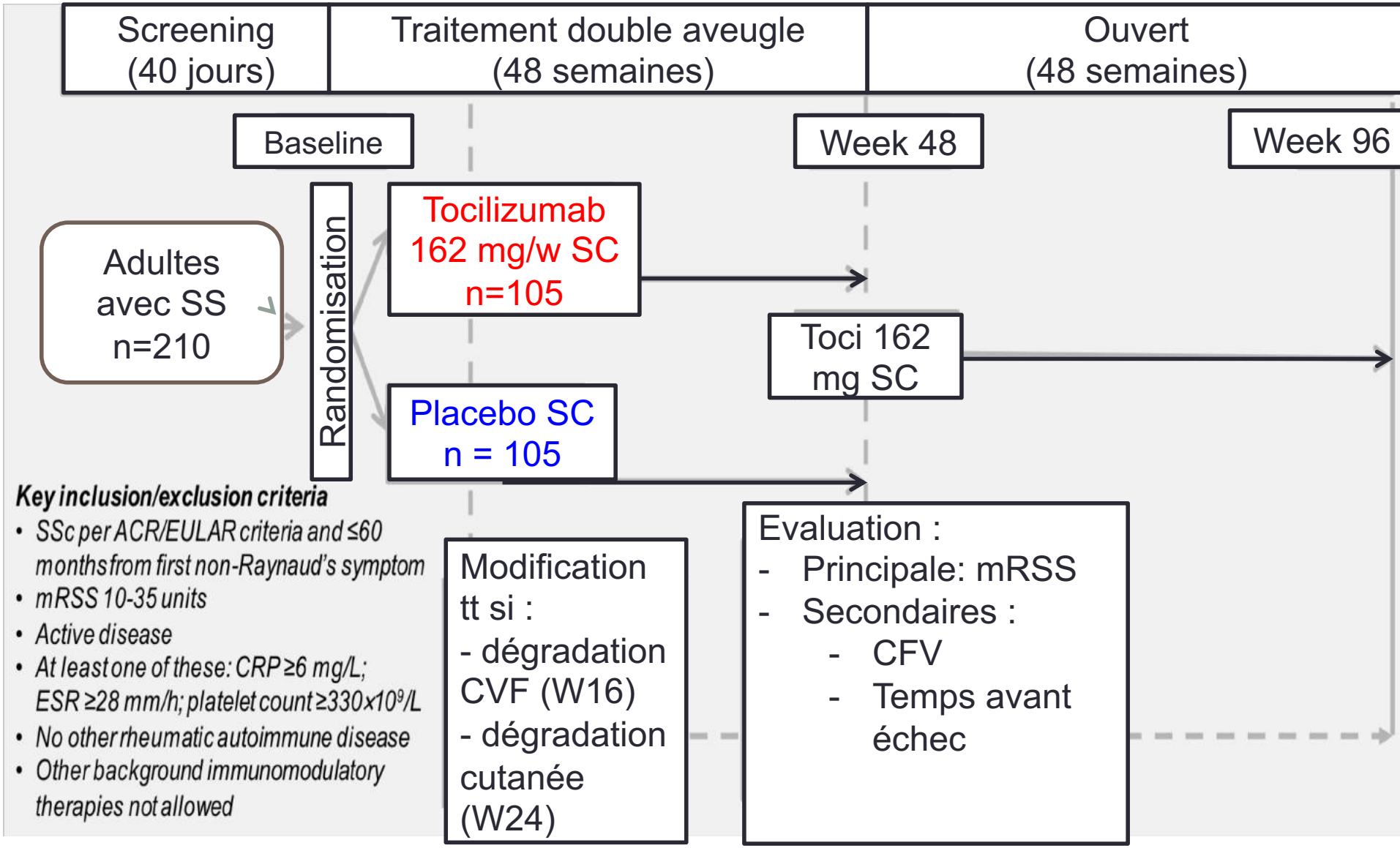
Efficacité (SLEDAI, BILAG, CTC)
Tolérance

1872 : Safety and efficacy of Allogeneic Umbilical Cord- derived Mesenchymal Stem cells

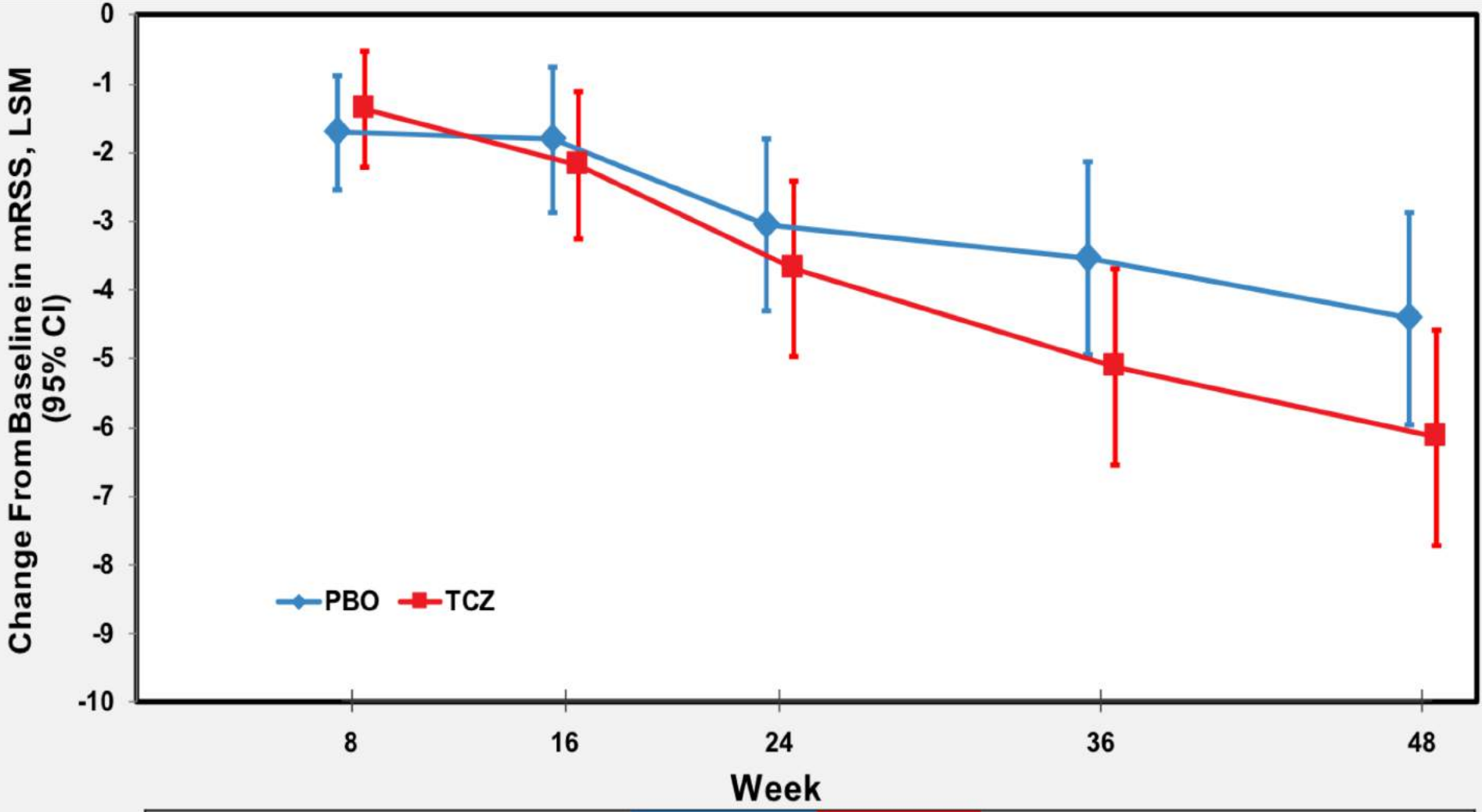


SLERODERMIE SYSTEMIQUE

898: Efficacy and Safety of Tocilizumab for treatment of systemic sclerosis : Phase 3 trial

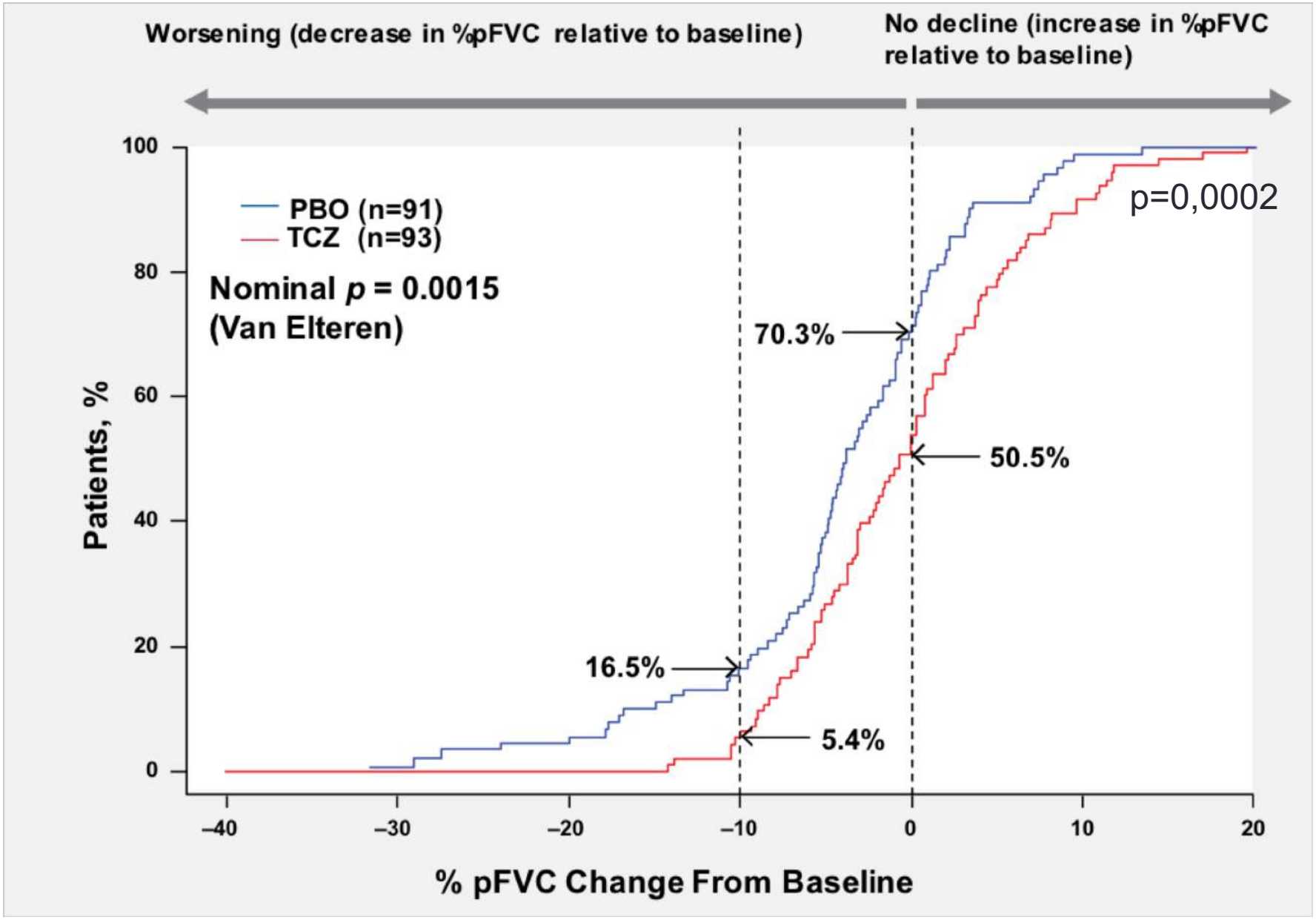


898: Efficacy and Safety of Tocilizumab for treatment of systemic sclerosis : Phase 3 trial



mRSS	PBO n=106	TCZ n=104	Difference (95% CI); *p* value[a]
LSM change from BL at week 48	-4.14	-6.14	-1.73 (-3.78, 0.32); *p* = 0.0983

898: Efficacy and Safety of Tocilizumab for treatment of systemic sclerosis : Phase 3 trial



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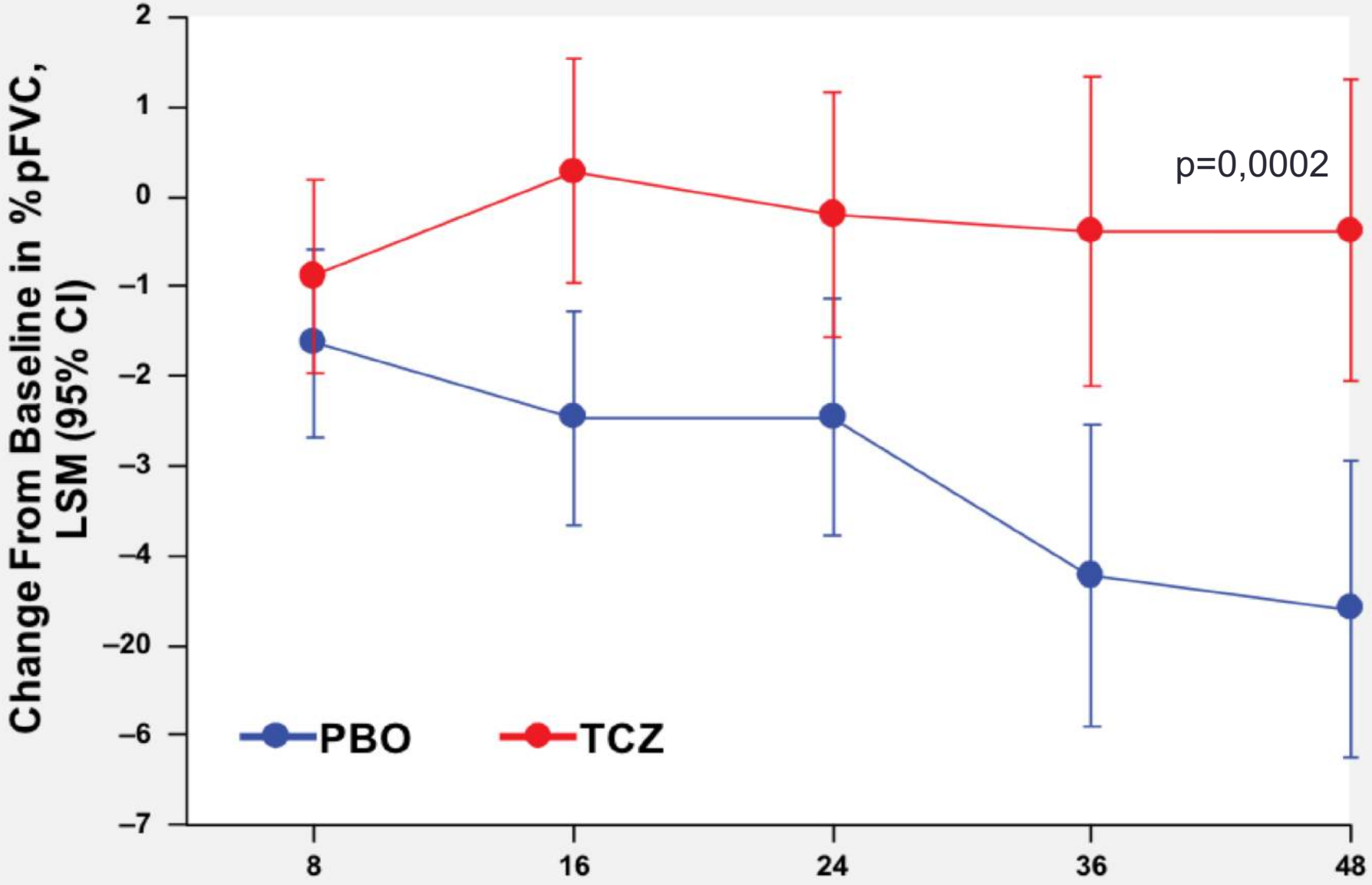


898: Efficacy and Safety of Tocilizumab for treatment of systemic sclerosis : Phase 3 trial

Pas de différence d'évènements indésirables (80%), $p=0,0002$
notamment infectieux

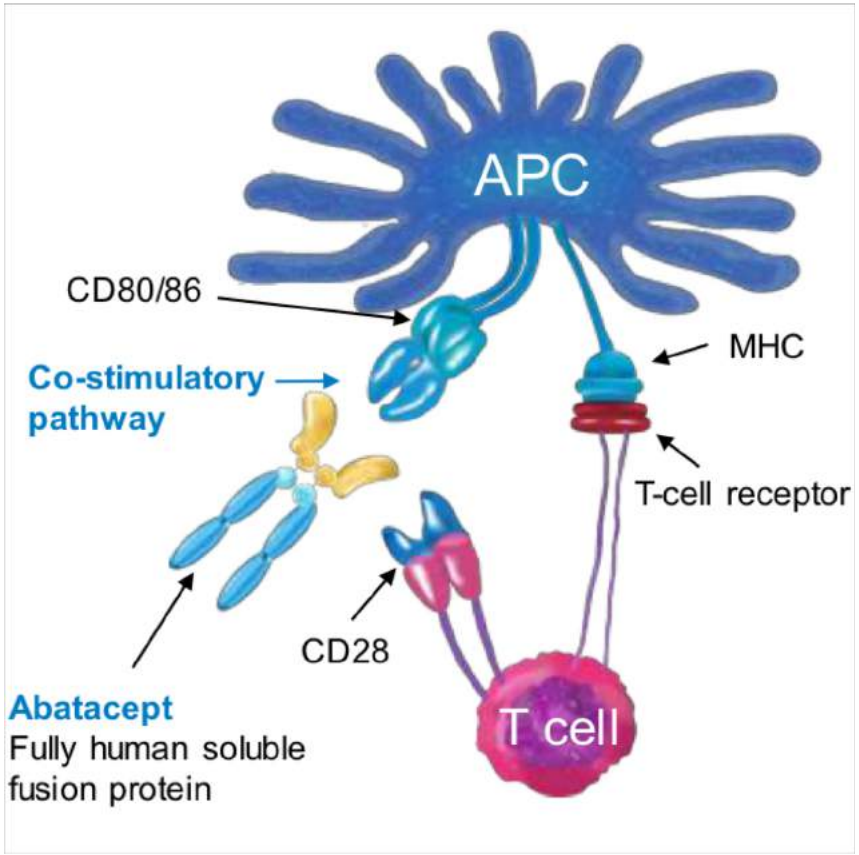
3 décès groupe placebo (cardiopathie) / 1 groupe Tocilizumab

900 : Abatacept in Early diffuse SS : Phase 2 Study

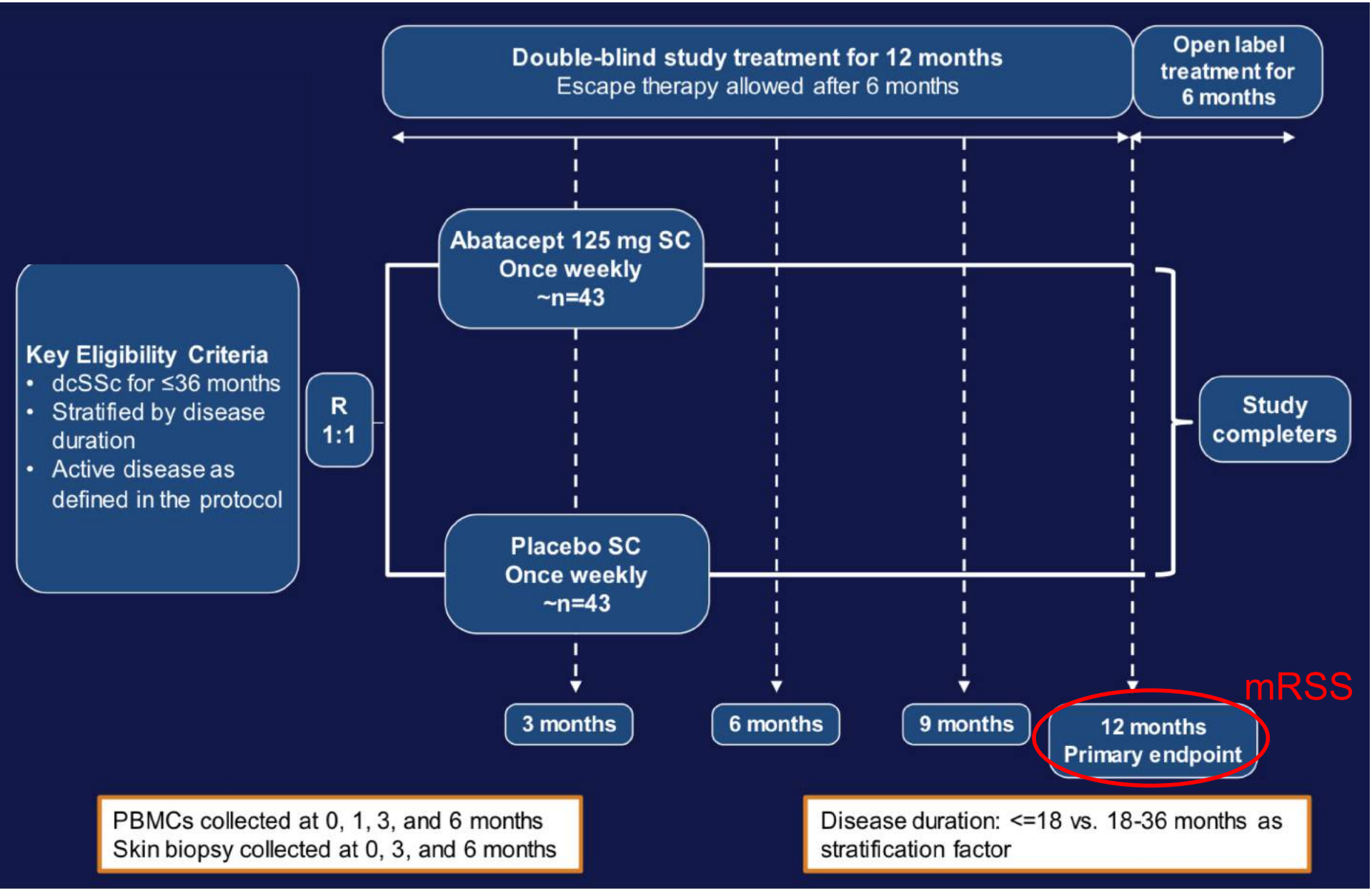
- Modèles animaux : Diminution fibrose cutanée et pulmonaire

- Etude pilote (Chakravarty 2015) : amélioration fibrose, bonne tolérance

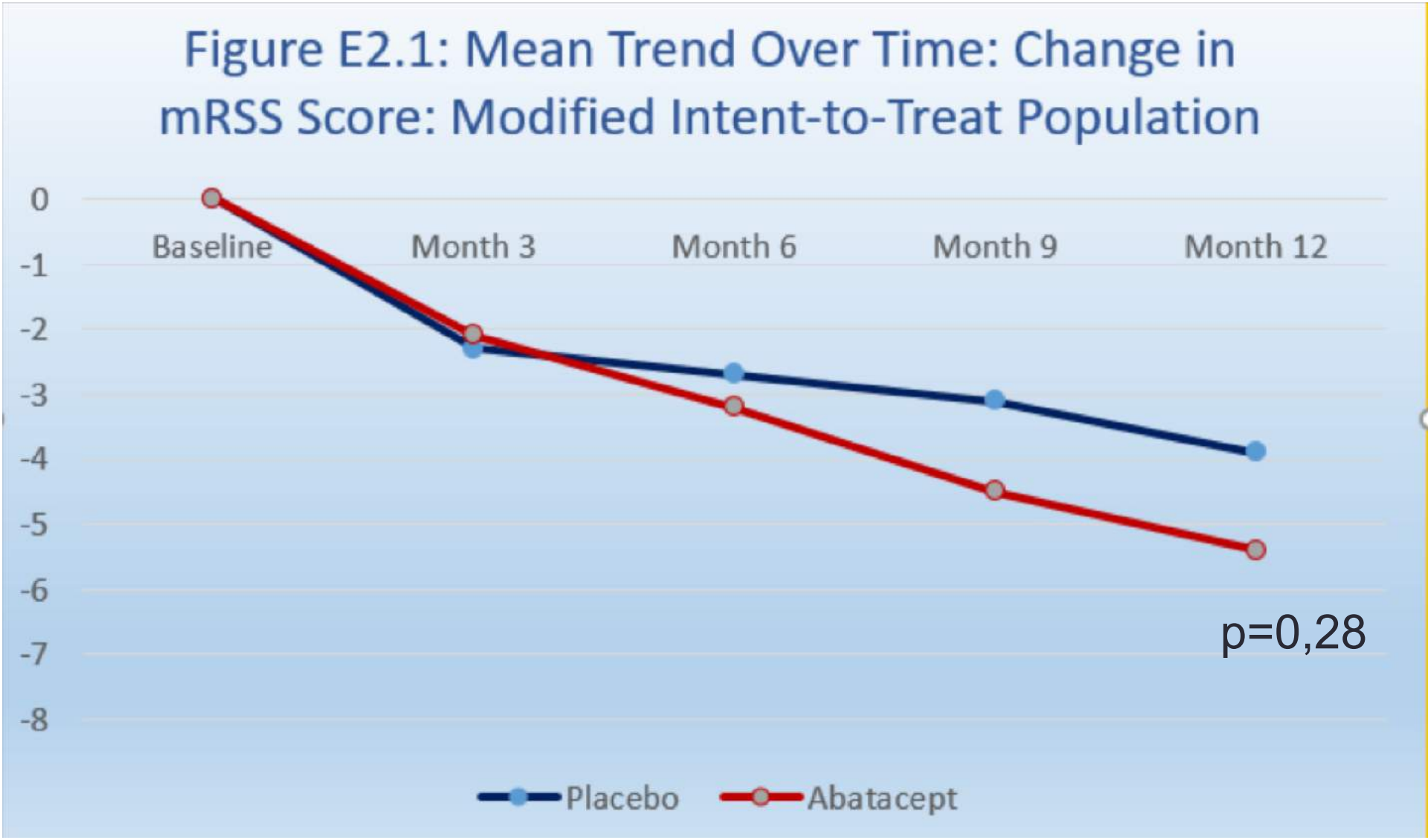
→ Essai phase 2



900 : Abatacept in Early diffuse SS : Phase 2 Study



900 : Abatacept in Early diffuse SS : Phase 2 Study



900 : Abatacept in Early diffuse SS : Phase 2 Study

	Placebo (N=44)	Abatacept (N=44)	Difference (Abatacept - Placebo)	P value
Patient Global Assessment, LS mean (SE)	-0.09 (0.46)	-0.31 (0.42)	-0.22	0.73
Physician Global Assessment, LS mean (SE)	-0.35 (0.32)	-1.30 (0.29)	-0.95	0.03
FVC% predicted, LS mean (SE)	-4.13 (1.2)	-1.34 (1.2)	2.79	0.11
HAQ-DI, LS mean (SE)	0.11 (0.07)	-0.17 (0.07)	-0.28	0.005
CRISS, Median (IQR)	0.01 (0.86)	0.68 (1.00)		0.03*

900 : Abatacept in Early diffuse SS : Phase 2 Study

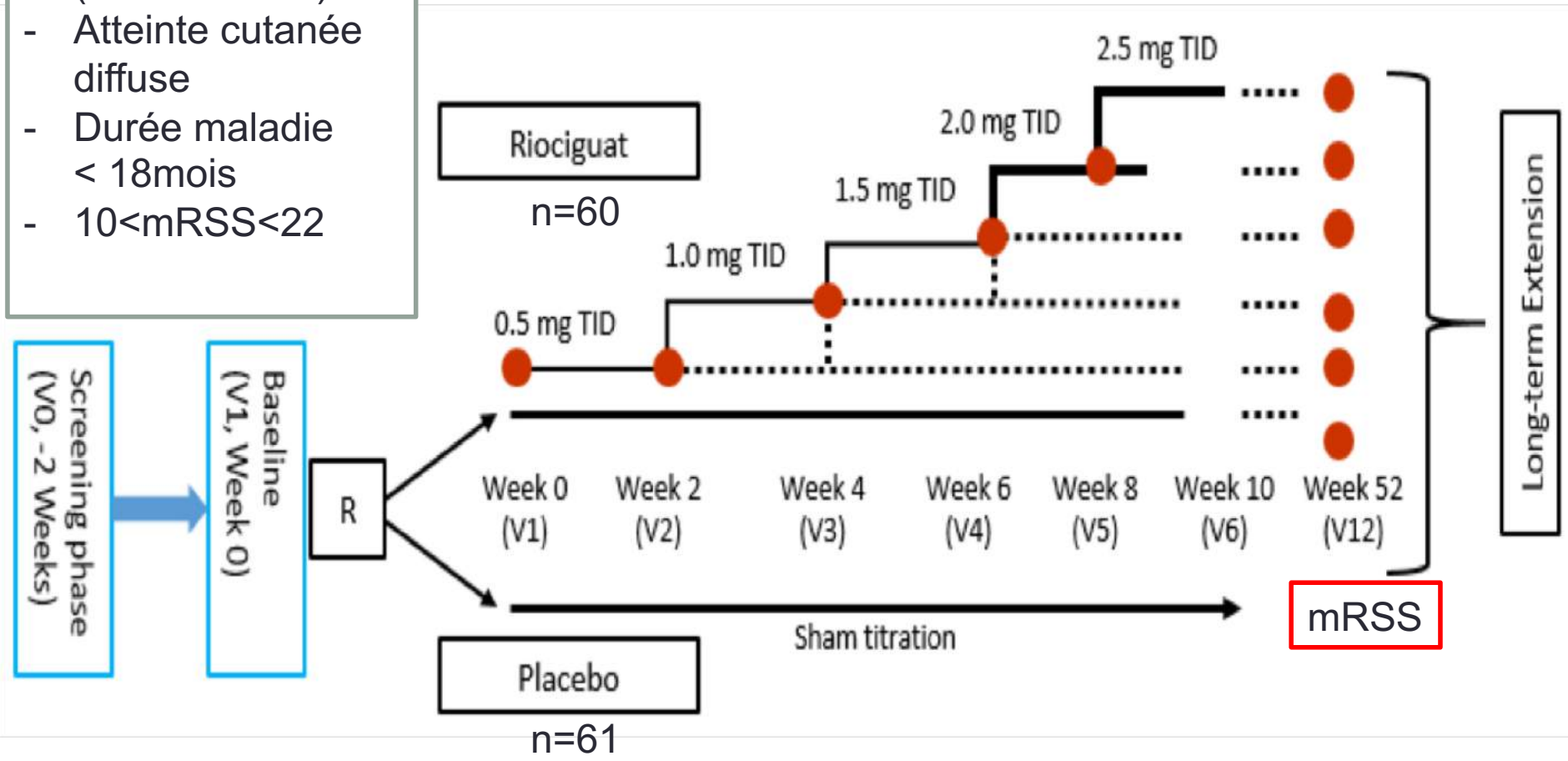
- CVF : pas de différence
- Ajout nouveaux traitements : 16 % groupe abatacept vs 36% groupe placebo
- Pas différence évènements indésirables

903 : Riocigat in early diffuse systemic sclerosis : Phase 2 study

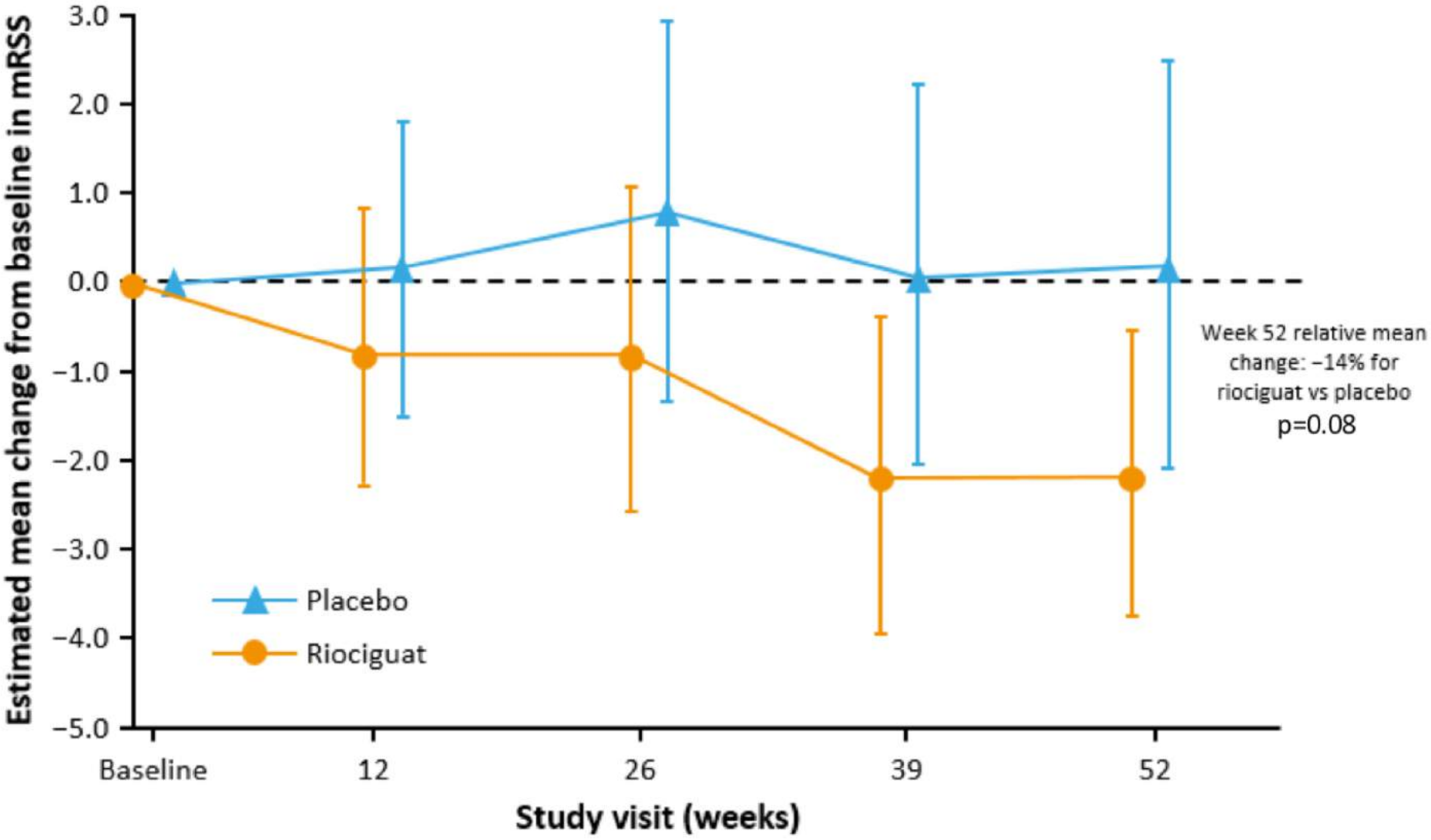
- Riocigat : stimulateur guanylate cyclase soluble
- Traitement de l'HTAP
- Effets vasoactif, anti-inflammatoire, anti-prolifératif et anti-fibrosant
- Effet dans la sclérodermie systémique?

903 : Riocigat in early diffuse systemic sclerosis : Phase 2 study

Inclusion :
- SSc (ACR/EULAR)
- Atteinte cutanée diffuse
- Durée maladie < 18mois
- 10<mRSS<22



903 : Riocigat in early diffuse systemic sclerosis : Phase 2 study



903 : Riocigat in early diffuse systemic sclerosis : Phase 2 study

Endpoint	Mantel-Haenszel estimate of difference (95% CI)	p-value
CRISS (improver rate)	0.20% (–13.68 to 14.09)	0.977
HAQ-DI	–0.07 (–0.23 to 0.08)	0.353
Patient's Global Assessment	0.79 (–0.12 to 1.69)	0.089*
Physician's Global Assessment	**0.83 (0.11 to 1.54)**	**0.024†**
Percent predicted FVC	–0.20 (–3.40 to 3.00)	0.901

1715 : Lebanasum in Diffuse cutaneous Systemic Sclerosis : Open-Label extension of phase 2 study

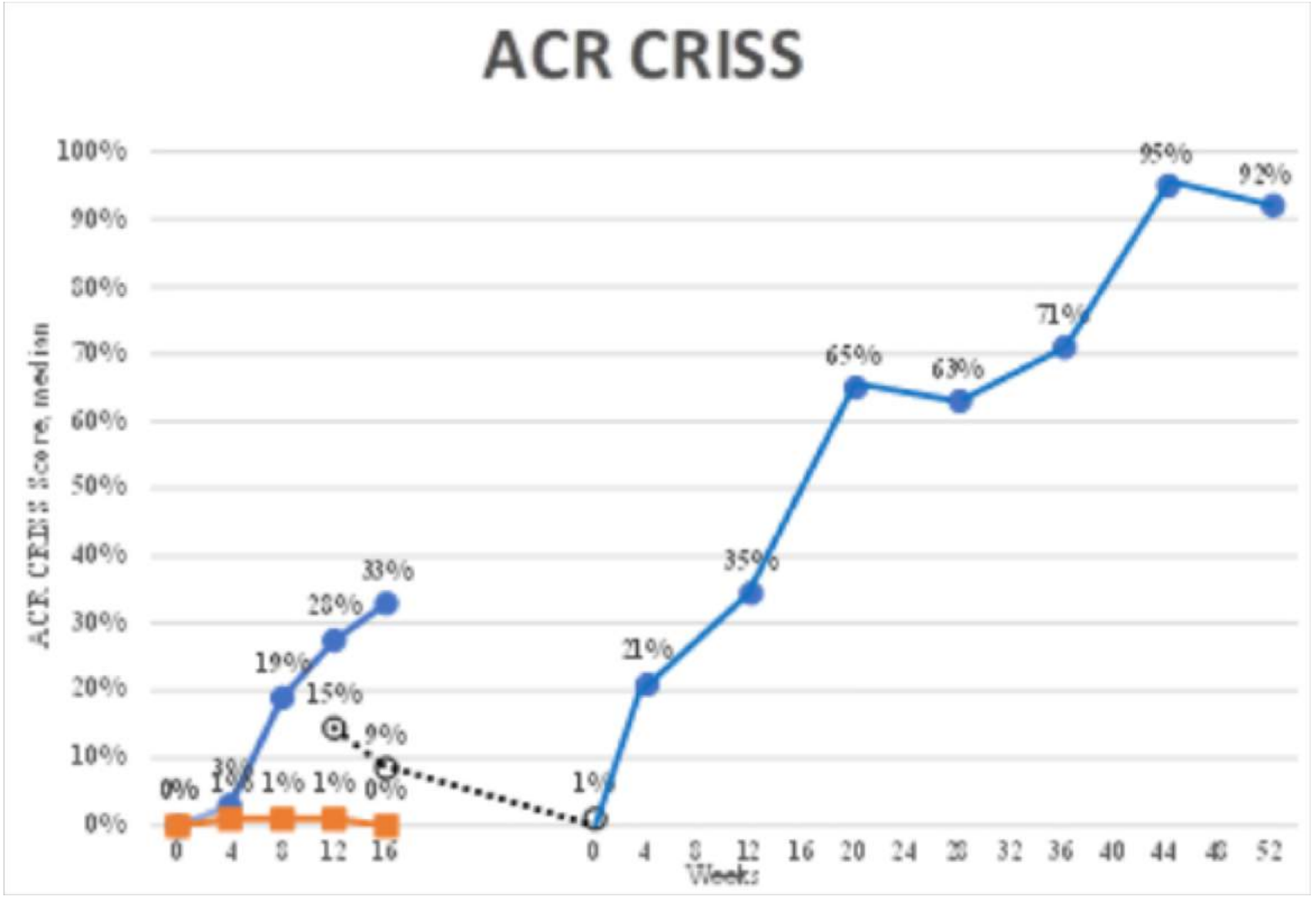
- Lebanasum : agoniste selectif du recepteur cannabinoide de type 2
- Essai phase 2 randomisé contrôlé : efficacité
- Objectif : efficacité et tolérance à long terme

- 36 patients
- 20 mg de Lebanasum par jour
- Suivi à 4 semaines puis toutes les 8 semaines

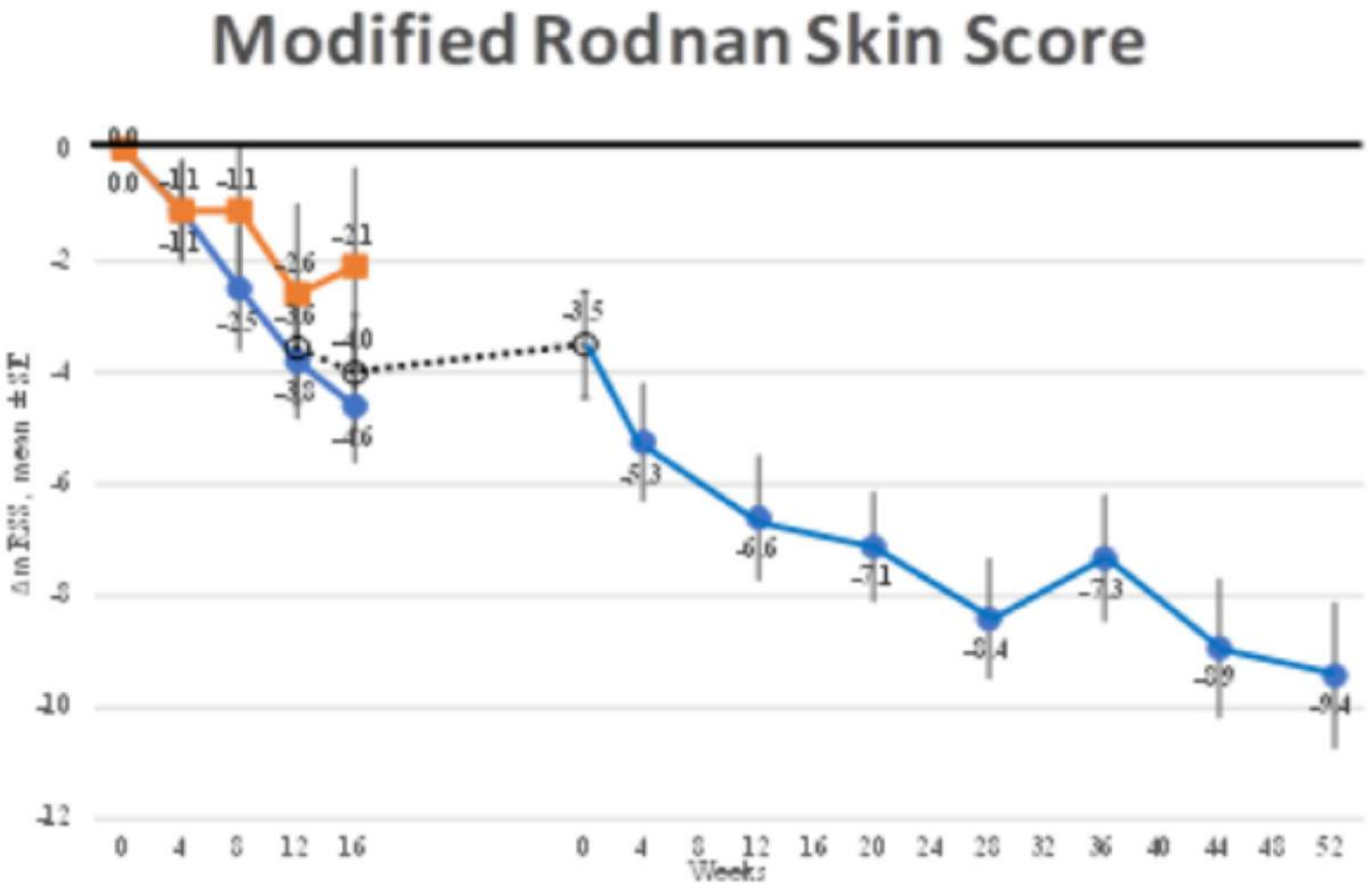
1715 : Lebanasum in Diffuse cutaneous Systemic Sclerosis : Open-Label extension of phase 2 study

31 dont 27 patients avec traitement > 1 an

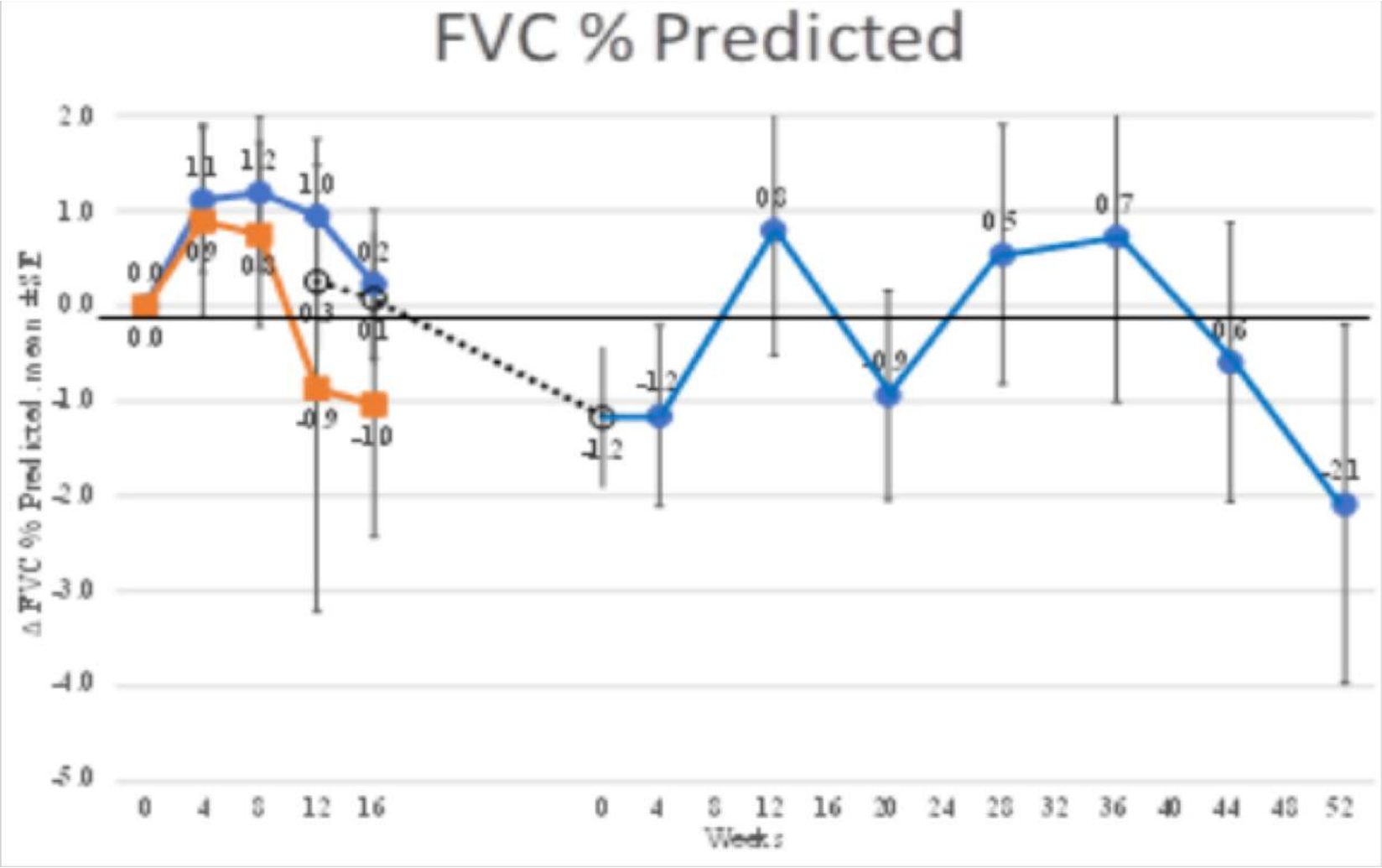
1715 : Lebanasum in Diffuse cutaneous Systemic Sclerosis : Open-Label extension of phase 2 study



1715 : Lebanasum in Diffuse cutaneous Systemic Sclerosis : Open-Label extension of phase 2 study



1715 : Lebanasum in Diffuse cutaneous Systemic Sclerosis : Open-Label extension of phase 2 study



1715 : Lebanasum in Diffuse cutaneous Systemic Sclerosis : Open-Label extension of phase 2 study

19,4% patients avec EI attribué au lebanasum

Evènements indésirables fréquents	
Infections respiratoires hautes	n=8 22%
Ulcères cutanés	n=5 13,9%
Arthralgies	n=5 13,9%
Infections urinaires	n=5 13,9%
Diarrhée	n=4 11%

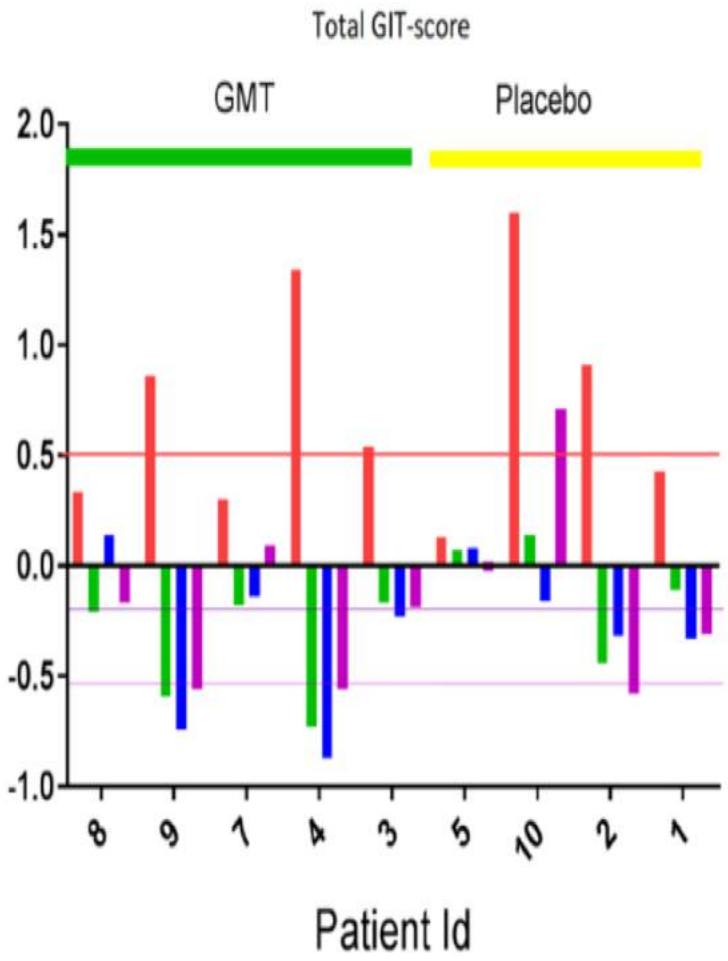
3 évènements indésirables graves :

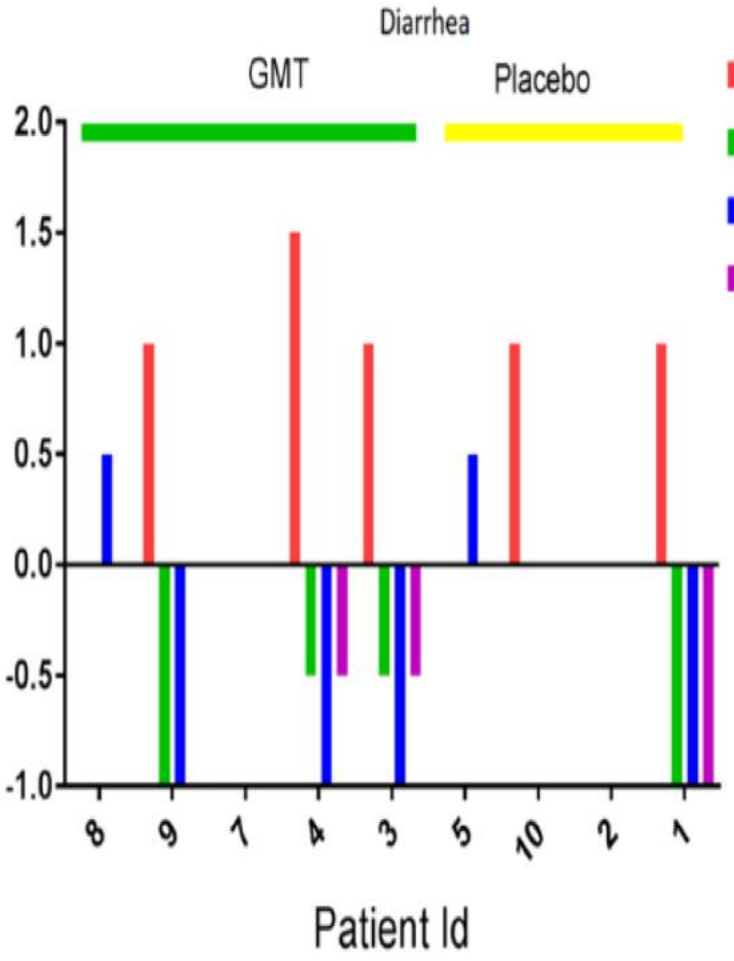
- Crise rénale
- Fracture du pouce
- Ulcère digital

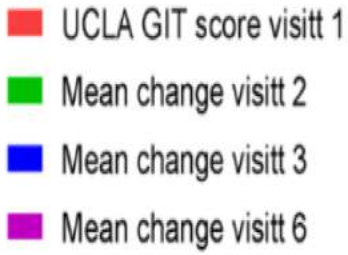
1725 : Fecal Microbiota Transplantation in patients with Systemic Sclerosis

- SS : modification microbiome par rapport aux sujets sains
- Hypothèse: normalisation microbiome => amélioration manifestations digestives
- Essai double aveugle, randomisé, contrôlé
- 10 patients avec atteinte gastrointestinale
- Administration lors FOGD à S0 et S2, suivi 16 semaines

1725 : Fecal Microbiota Transplantation in patients with Systemic Sclerosis





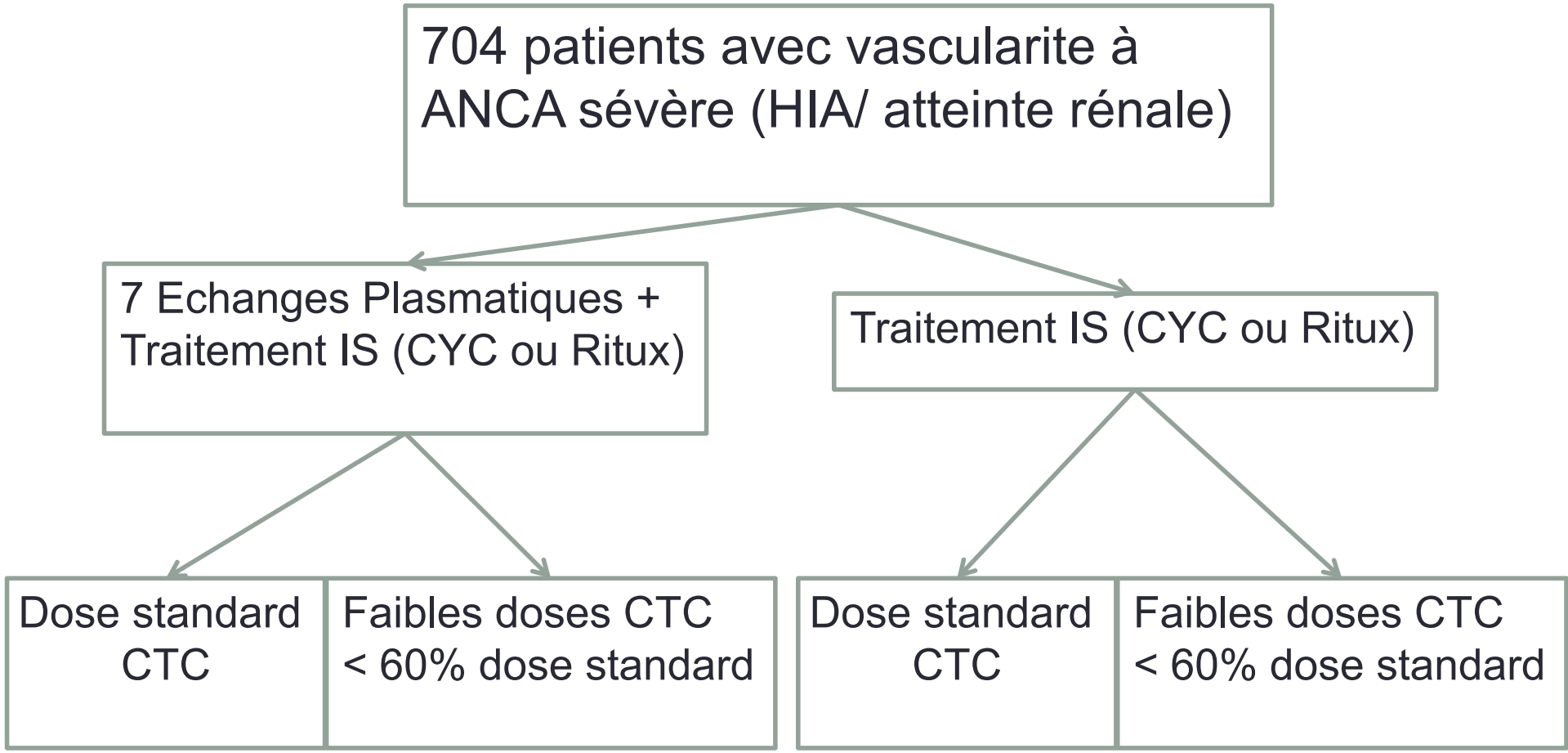


VASCULARITES

2788 PEXIVAS

- Questions posées :
  - Interêt des échanges plasmatiques dans les vascularites à ANCA?
  - Possibilité d’administrer de faible dose de corticoïdes?

2788 PEXIVAS



Critère de jugement : score composite : décès ou IRCT

2788 PEXIVAS

	Nb de patients (%)
Anti-PR3	289 (59%)
Anti-MPO	209 (41%)
Atteinte rénale	691 (98%)
HIA	191 (27%)
CYC	595 (85%)
Rituximab	109 (15%)

2788 PEXIVAS

- Critère de jugement principal :
  - 28% groupe EP vs 31% groupe sans EP (p=0,27)
  - 28% groupe avec faible dose CTC vs 26% groupe avec dose standard

- Moins d'infections sévères lors de la première année dans groupe faible dose CTC :
  - Incidence ratio = 0,7 (p=0,02)

904 : Long-term safety of Rituximab in ANCA vasculitis (RaVer)

- Etude tolérance à long terme Rituximab
- Etude Phase IV ouverte basée sur registre

904 : Long-term safety of Rituximab in ANCA vasculitis (RaVer)

Patients inclus dans RaVer n=100

Etude tolérance à long terme : n=97 :
- Etude achevée : n=72
- Etude arrêtée : n= 25
  - Décès : n=9
  - Retrait du sujet : n=8
  - Perdu de vue : n =5
  - Autres : n=3

Patients avec plusieurs injections de Rituximab : n=71
- 2 perfusions =13
- 3 perfusions n=9
- ≥ 4 perfusions n=49

Nombre moyen de perfusion = 8

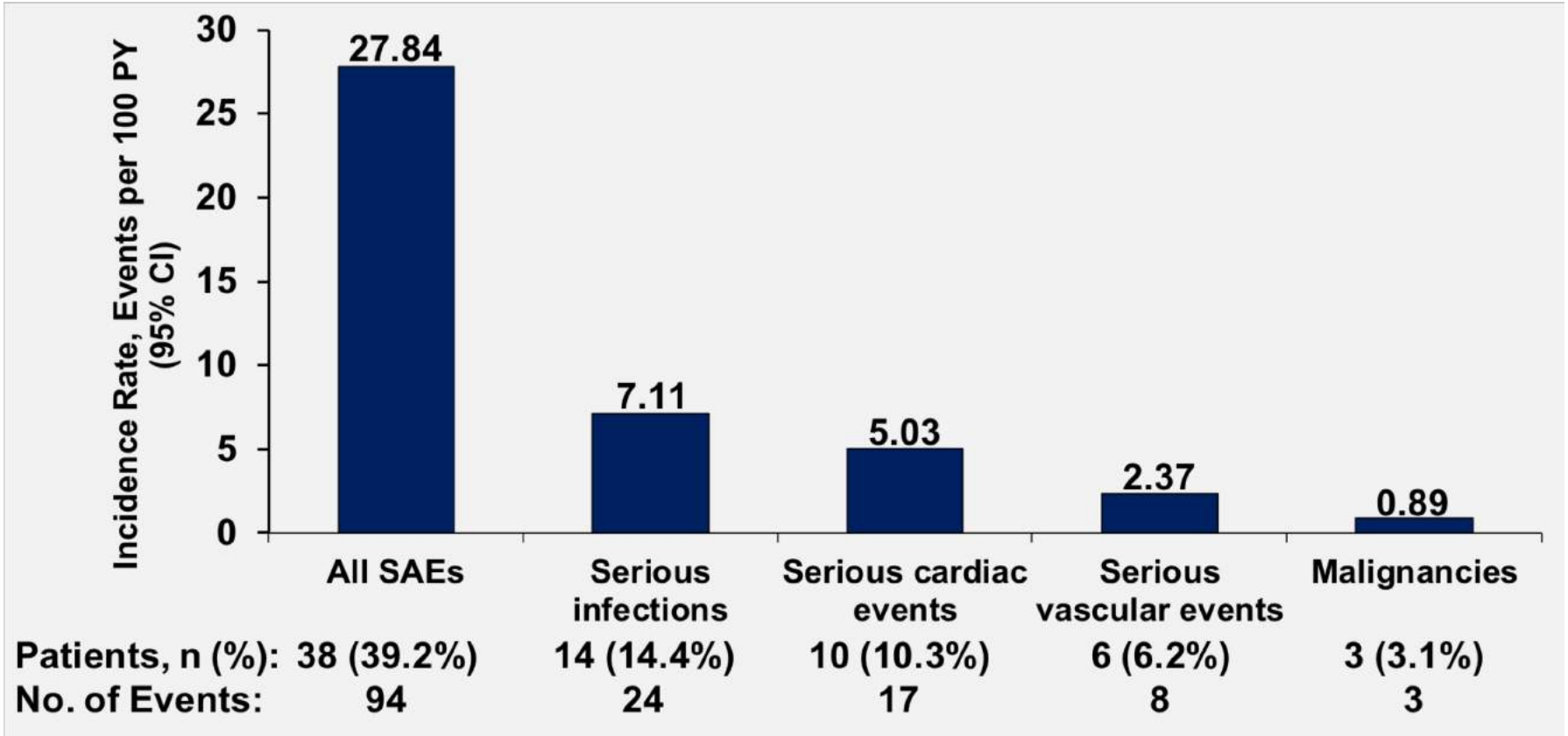
Durée médiane suivi : 3,94 ans

81% patients avec suivi > 3 ans

904 : Long-term safety of Rituximab in ANCA vasculitis (RaVer)

- Evènements indésirables : 194 chez 61 patients (63%)
  - Pneumopathie / FA/ TVP

- Evènements indésirables graves :



904 : Long-term safety of Rituximab in ANCA vasculitis (RaVer)

- 24 infections chez 14 patients (14,4%)

Serious infections in ≥ 2 patients	No. of patients (%)
Gastroenteritis	2 (2.1%)
Herpes zoster	2 (2.1%)
Influenza	2 (2.1%)
Pneumonia	2 (2.1%)
Staphylococcal bacteremia	2 (2.1%)
Urinary tract infection	2 (2.1%)

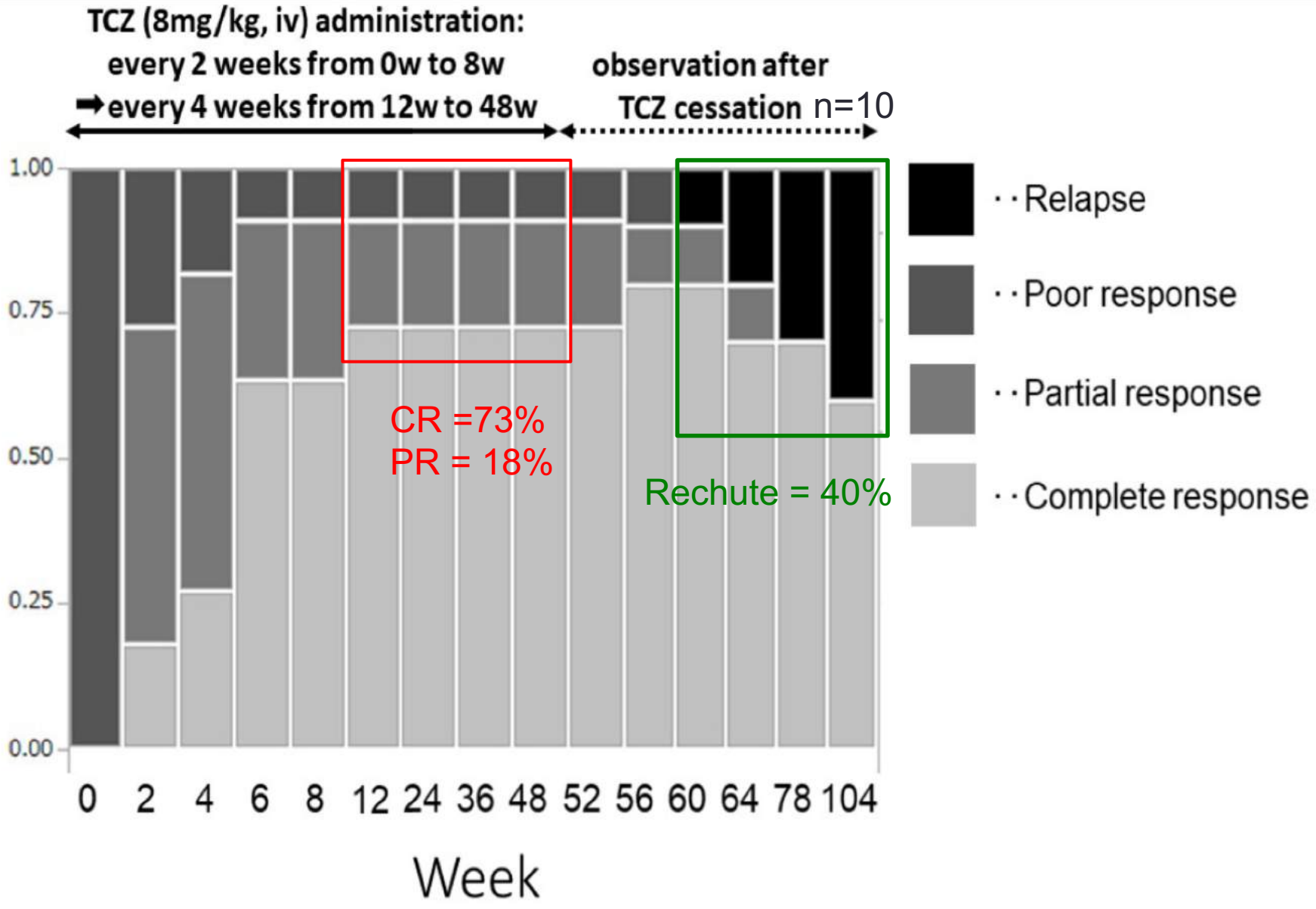
904 : Long-term safety of Rituximab in ANCA vasculitis (RaVer)

- 3 patients avec néoplasie :
  - Adenocarcinone
  - Cancer du poumon
  - Cancer du sein

2746 : Tocilizumab monotherapy for LVV

- Etude efficacité et tolérance Tocilizumab en monothérapie dans LVV (ACG/Takayasu)
- Etude monocentrique ouverte prospective (Japon)
- 12 patients (4 TAK/8 ACG), au diagnostic
- Administration Tocilizumab : 15 injections (8 mg/kg)

2746 : Tocilizumab monotherapy for LVV

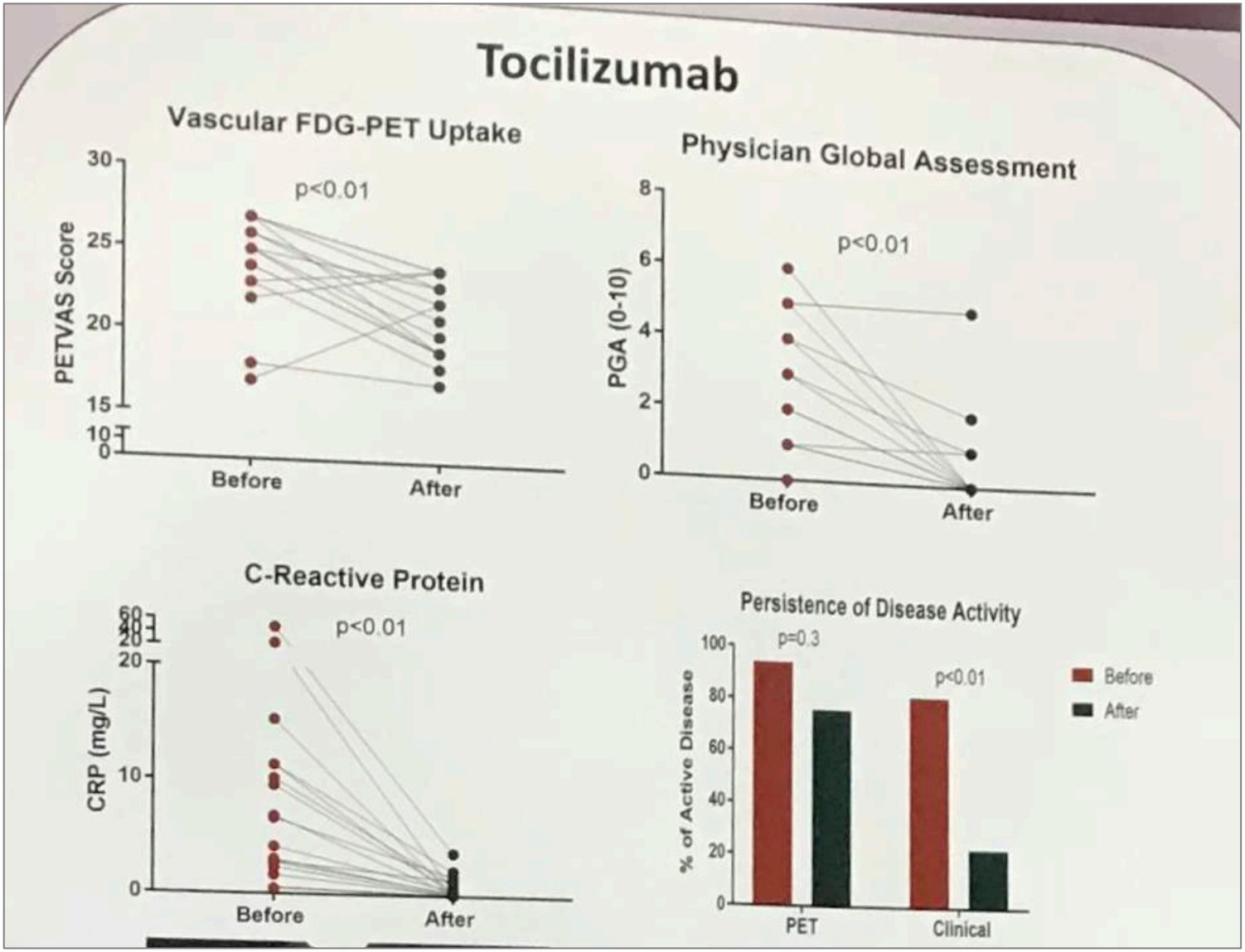


2759 : Effect of Specific Treatments on Clinical, Serologic and Imaging Assessments of disease activity in LVV

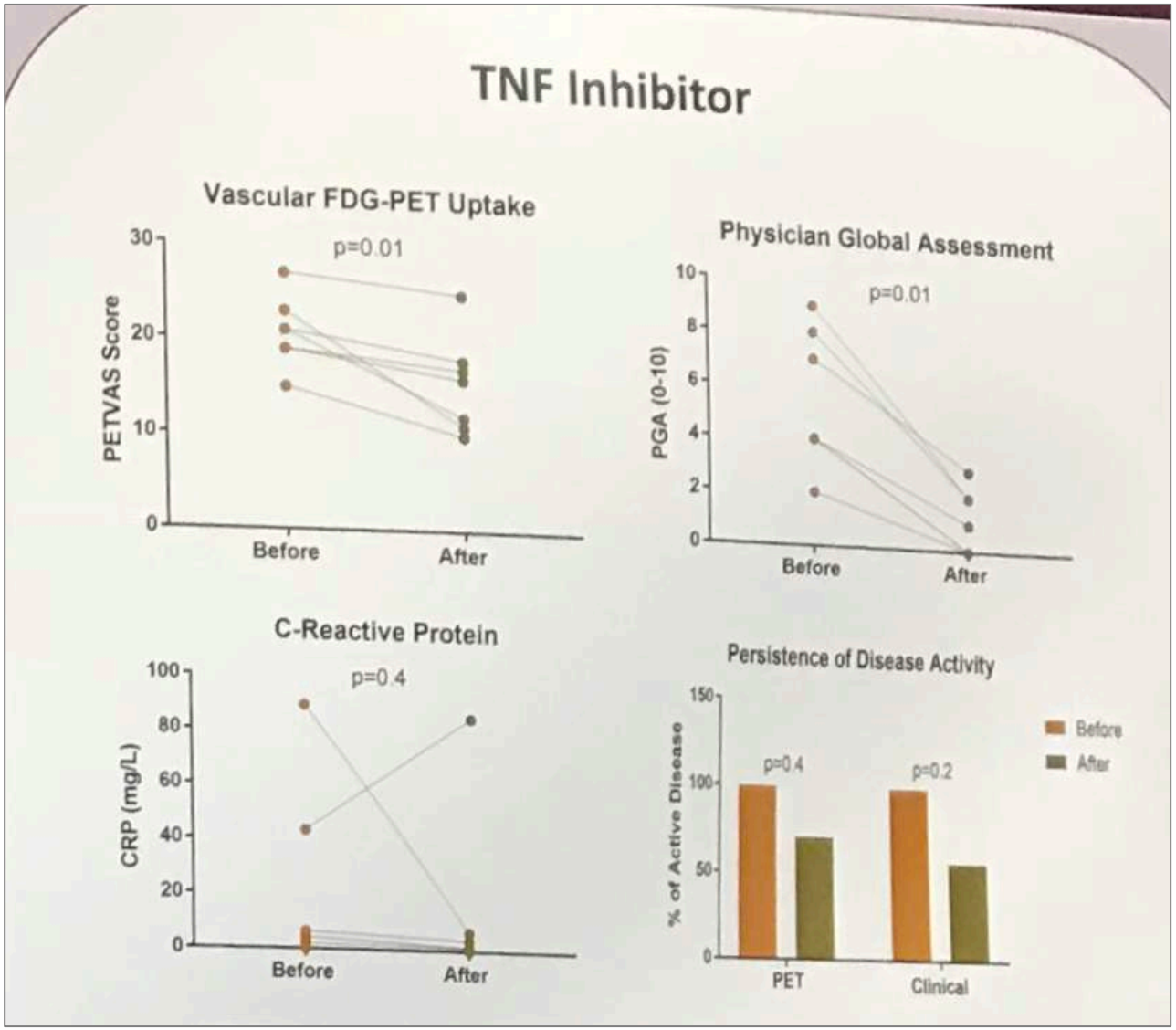
- Evaluation impact des traitements des LVV (Tocilizumab, Infliximab, Methotrexate) sur les paramètres cliniques, biologiques et radiologiques

- Etude prospective observationnelle : 32 patients (Toci : 14 ACG, Infliximab : 6 TAK, MTX : 12)
  - Evaluation clinique (PGA)
  - Biologie (CRP, VS)
  - Imagerie : 2 PET-TDM : score PETVAS (9 zones vasculaires / activité du foie) 0-27

2759 : Effect of Specific Treatments on Clinical, Serologic and Imaging Assessments of disease activity in LVV



2759 : Effect of Specific Treatments on Clinical, Serologic and Imaging Assessments of disease activity in LVV



816 : Development of Thoracic Aortic Anevrysms in patients with PMR

- Etude rétrospective incluant patients avec PPR diagnostiquée après 2000 (critères ACR 2012)
- Exclusion :
  - ACG, autres rhumatismes inflammatoires
  - Perdus de vue sans imagerie thoracique
  - Anevrisme aortique préexistant

- 350 patients, durée médiane de suivi = 5,4 ans
- 50 patients avec anévrisme aortique (14,3%)

- Facteurs de risque (multivarié) :
  - Sexe masculin : OR = 4,4
  - Durée de corticothérapie : OR = 1,02

CHECK POINTS INHIBITORS

362 : Immune Checks Point Inhibitors, autoantibodies and Immune adverse reactions

- Association auto-anticorps et survenue effets indésirables?
- Etude rétrospective
- 15 patients traités par immunothérapie avec autoanticorps associé à pathologies autoimmunes avant, pendant ou après immunothérapie
- 80% avec évènements indésirables
  - 58% avec anticorps avant toxicité
- Profil auto-anticorps connu avant immunothérapie :
  - 4 patients avec pathologie auto-immune avant tt : 100% événements indésirables (poussée maladie chez 3 patients)
  - 5 patients sans autoanticorps : 20% (n=1) avec événement indésirable

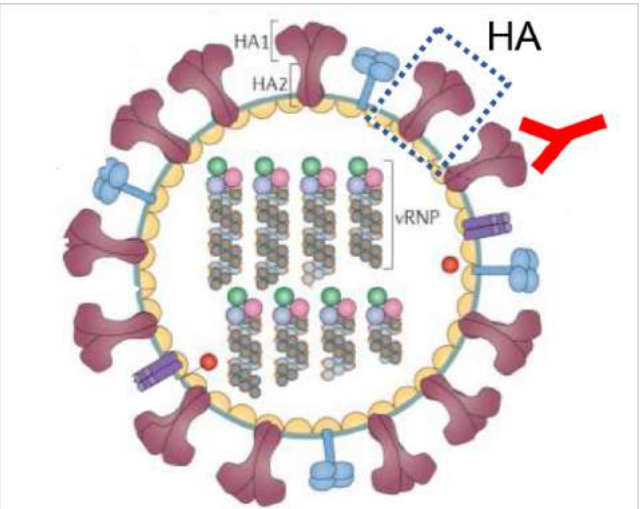
DIVERS

837 : Efficacy of high-dose versus Standard-dose Influenza vaccine in rheumatoid arthritis patients

- Risque de complications de la grippe chez sujets avec PR : 1,82
  - Facteurs impliqués : traitements, comorbidités, dysfonction système immunitaire
  - ↘immunogénicité vaccin

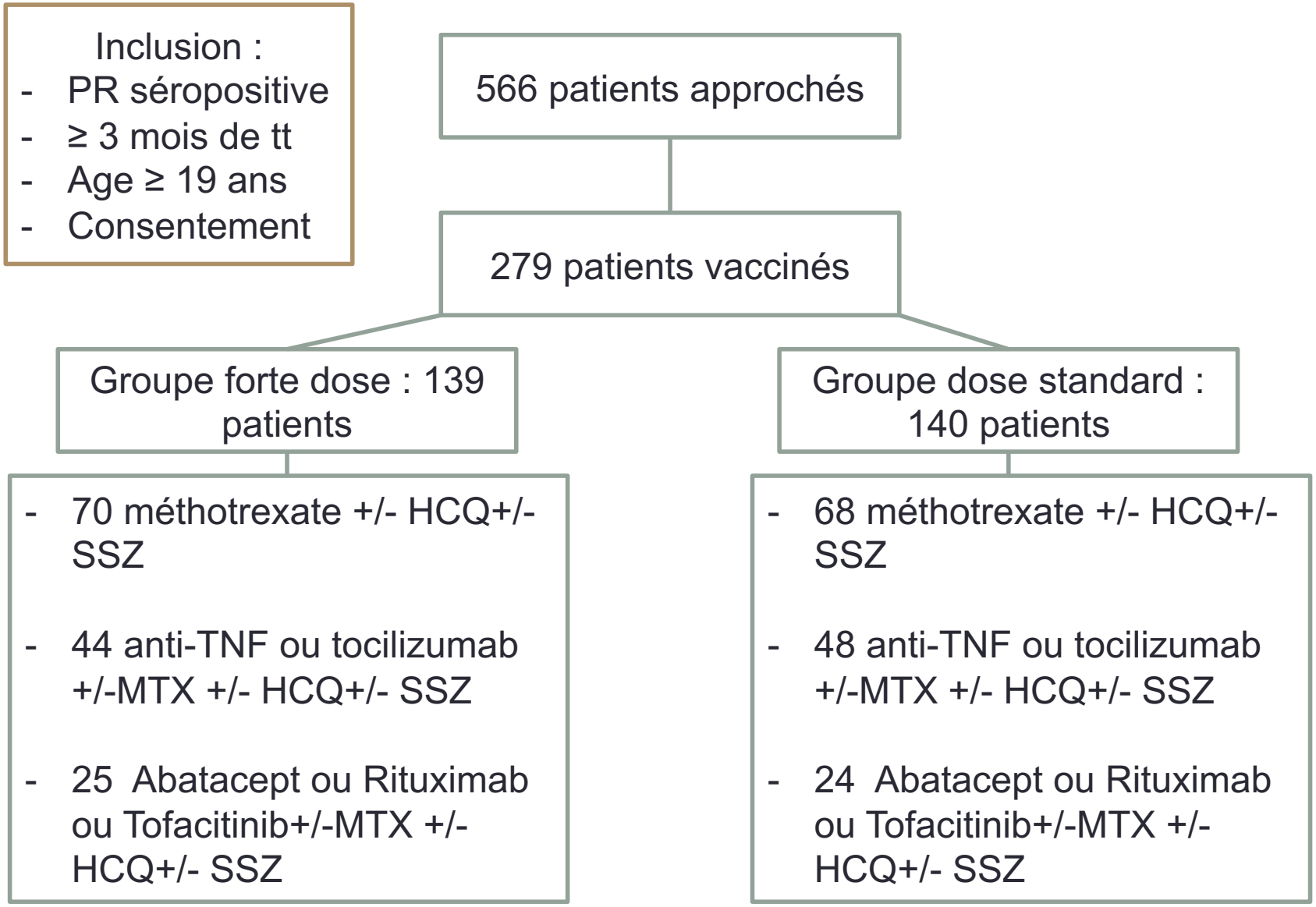
- Vaccins antigrippaux :
  - Standard : 15 µg HA (trivalent/quadrivalent)
  - Forte dose : 60 µg HA

- Sujets agés : 25% + efficace dans infection grippale



➡ Intérêt chez sujets avec PR?

837 : Efficacy of high-dose versus Standard-dose Influenza vaccine in rheumatoid arthritis patients



837 : Efficacy of high-dose versus Standard-dose Influenza vaccine in rheumatoid arthritis patients

	HD-TIV	SD-QIV	HD-TIV vs SD-QIV
SeroCONVERSION rates Titre Acx4	n (%)	n (%)	OR* (95%CI)
H3N2 (Y1+Y2) n=279	31 (**22.3**)	12 (**8.6**)	**2.93 (1.4-6.13)**
B Victoria lin (Y1+Y2) n=279	62 (**44.6**)	40 (**28.6**)	**1.93 (1.15-3.23)**
A/California H1N1 (Y1) n=141	36 (**51.4**)	18 (**25.3**)	**2.91 (1.37-6.19)**
A/Michigan H1N1 (Y2) n= 138	32 (**46.4**)	17 (**24.6**)	**2.79 (1.29-6.06)**

837 : Efficacy of high-dose versus Standard-dose Influenza vaccine in rheumatoid arthritis patients

	HD-QIV			SD-TIV		
Strata →						
Seroconversion rates						
H3N2	17 (24.3)	12 (27.3)	2 (8)	6 (8.8)	3 (6.2)	3 (12.5)
B Victoria lin	27 (38.6)	24 (54.5)	11 (44)	17 (25)	13 (27.1)	10 (41.7)
A/California H1N1 (Y1)	21 (61.8)	10 (43.5)	5 (38.5)	8 (23.5)	9 (36)	1 (8.3)
A/Michigan H1N1 (Y2)	22 (61.1)	7 (33.3)	3 (25)	11 (32.4)	3 (13)	3 (25)

MTX ± HCQ ± SSZ
138 (49.5%)

anti-TNF or TOCI ± MTX ± HCQ ± SSZ
92 (33%)

ABA or RIT or TOFA ± MTX ± HCQ ± SSZ
49 (17.5%)

JAMA | Original Investigation

Effect of Opioid vs Nonopioid Medications on Pain-Related Function in Patients With Chronic Back Pain or Hip or Knee Osteoarthritis Pain

The SPACE Randomized Clinical Trial **JAMA** March 6, 2018

Erin E. Krebs, MD, MPH; Amy Gravely, MA; Sean Nugent, BA; Agnes C. Jensen, MPH; Beth DeRonne, PharmD; Elizabeth S. Goldsmith, MD, MS; Kurt Kroenke, MD; Matthew J. Bair; Siamak Noorbaloochi, PhD

- Comparaison efficacité antalgiques morphiniques vs AINS/ acetaminophène pour douleurs chroniques arthrose
- Essai randomisé
- 240 patients avec douleurs lombaires chroniques ou gonarthrose ou coxarthrose

JAMA | Original Investigation

Effect of Opioid vs Nonopioid Medications on Pain-Related Function in Patients With Chronic Back Pain or Hip or Knee Osteoarthritis Pain

Table 2. Patient-Reported Primary and Secondary Outcomes Among Patients With Chronic Back Pain or Hip or Knee Osteoarthritis Pain Randomized to Opioid vs Nonopioid Medication

Outcome	Opioid Group, Mean (SD) (n = 119)	Nonopioid Group, Mean (SD) (n = 119)	Between-Group Difference (95% CI)[a]	Overall *P* Value[b]
Pain-Related Function (Primary Outcome)				
BPI interference scale (range, 0-10; higher score = worse)[c]				
Baseline	5.4 (1.8)	5.5 (2.0)	−0.1 (−0.6 to 0.4)	
3 mo	3.7 (2.1)	3.7 (2.2)	0.0 (−0.6 to 0.6)	.58
6 mo	3.4 (2.1)	3.6 (2.4)	−0.2 (−0.8 to 0.4)	
9 mo	3.6 (2.2)	3.3 (2.4)	0.4 (−0.2 to 1.0)	
12 mo	3.4 (2.5)	3.3 (2.6)	0.1 (−0.5 to 0.7)	
Pain Intensity (Secondary Outcome)				
BPI severity scale (range, 0-10; higher score = worse)[d]				
Baseline	5.4 (1.5)	5.4 (1.2)	0.0 (−0.4 to 0.3)	
3 mo	4.3 (1.8)	4.0 (1.7)	0.3 (−0.2 to 0.7)	.03
6 mo	4.1 (1.8)	4.1 (1.9)	0.0 (−0.5 to 0.5)	
9 mo	4.2 (1.7)	3.6 (1.7)	0.7 (0.2 to 1.2)	
12 mo	4.0 (2.0)	3.5 (1.9)	0.5 (0.0 to 1.0)	

Arthrocentesis and Joint Injection in Patients Receiving Direct Oral Anticoagulants

Jennifer C. Yui, MD; Carina Preskill, MD; and Laura S. Greenlund, MD, PhD

- Evaluation risque de saignement lors infiltration/ ponction articulaire sous AOD
- Etude rétrospective, Mayo Clinic
- Ponctions articulaires réalisées entre 2010-2016 sous:
  - Dabigraban
  - Rivaroxaban / Apixaban

Arthrocentesis and Joint Injection in Patients Receiving Direct Oral Anticoagulants