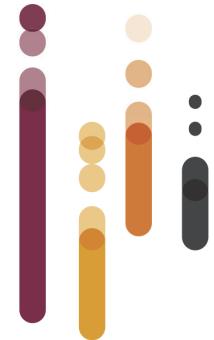


10 al 14 de
noviembre
2024

Ciudad San Diego
(USA)



ACRreview 23

#ACReview23



AstraZeneca 

Sociedad Española de
Reumatología



ACReview 23

#ACReview23

Artritis Reumatoide Tratamiento

Dr. José Francisco García Llorente

Servicio de Reumatología
Hospital Universitario de Galdakao. Vizcaya



AstraZeneca

0396: Hydroxychloroquine Is Associated with a Decreased Risk of Non-alcoholic Fatty Liver Disease in Patients with Rheumatoid Arthritis: A Population-based, Cohort Study

FAMEsc

Hidroxicloroquina

- Prevalencia del HGNA en AR: (35.2% en varones y 22.2% en mujeres).
- Taiwan. 2000–2020 NHIRD, 41,791 nuevos diagnósticos de AR de 2002 a 2020.
- Edad media 51.9 ± 14.2 años.
- Proporción mujeres/varones: 3.2.
- 399 (1.86%) desarrollaron HGNA durante un seguimiento medio de 8.4 años.
- Incidencia de $2.21 \times 1/1000$ para un periodo de seguimiento de 8.4 años.

0396: Hydroxychloroquine Is Associated with a Decreased Risk of Non-alcoholic Fatty Liver Disease in Patients with Rheumatoid Arthritis: A Population-based, Cohort Study

FAMEsc

Hidroxicloroquina

- Multivariable time-dependent Cox regression analyses: HCQ estaba asociado a un menor riesgo de HGNA (**aHR, 0.75; 95% CI, 0.60–0.93; p = 0.007**).
- Predictores del riesgo de HGNA:
 - Obesidad (**aHR, 4.63; 95% CI, 1.47–14.59; p = 0.009**),
 - Dosis diaria de AINE necesario (**por unidad: aHR, 1.03; 95% CI, 1.02–1.05; p < 0.001**)
 - Dosis equivalente de prednisolona > 5 mg/día (**aHR, 2.4; 95% CI, 1.86–3.10; p < 0.001**)
 - Referencia: pacientes sin prednisolona.
- Válido para pacientes ≤50 años y mujeres.

Comparative Safety of Biologic and Targeted Synthetic Disease Modifying Anti-Rheumatic Drugs for Cardiovascular Outcomes in Rheumatoid Arthritis

- EEUU
- Base de datos MarketScan (2012-2021) de pacientes con AR de 18 a 64 años que empiezan un iTNF, no-iTNF o iJAK.
- 40,207 pacientes (71% iTNF, 19% no-iTNF, y 10% iJAK).
- Mujeres (78-80%) y edad media de 47-49 años (Table 1).
- Seguimiento medio: 230 Días de iTNF, 190 días en no-iTNF, y 180 días los iJAK.

Comparative Safety of Biologic and Targeted Synthetic Disease Modifying Anti-Rheumatic Drugs for Cardiovascular Outcomes in Rheumatoid Arthritis

Table 1. Baseline characteristics of RA cohort stratified by different drug exposures

Variable	TNF _i n=31,008 (71%)	Non-TNF _i n=8591 (19%)	JAK _i n=4309 (10%)
Age in years (median, IQR)	50 (41, 56)	51 (43, 56)	50 (43, 56)
Female, n (%)	24,078 (78)	6824 (79)	3457 (80)
Geographic region, n (%)			
Northeast	4429 (14)	1443 (17)	691 (16)
North Central	6147 (20)	1669 (19)	775 (18)
South	15,277 (49)	4059 (47)	2216 (51)
West	4686 (15)	1313 (15)	603 (14)
Year of initiating biologic drug (median, IQR)	2016 (2014, 2018)	2016 (2014, 2019)	2019 (2016, 2020)
Days from RA diagnosis to initiating biologic drug (median, IQR)	430 (200, 920)	630 (320, 1250)	650 (350, 1240)
Charlson comorbidity score, n (%)			
1-2	26,376 (85)	6000 (70)	3563 (83)
3-4	3606 (12)	1774 (21)	581 (13)
Frailty score (0 [not at all <u>frail</u>]-1 [severely frail]), median (IQR)	0.14 (0.12, 0.16)	0.15 (0.12, 0.17)	0.14 (0.12, 0.16)
Any hospital admissions, n (%)	2659 (9)	1415 (16)	351 (8)
Any emergency department visits, n (%)	8473 (27)	3084 (36)	1072 (25)
Any opioid prescription fills, n (%)	12,159 (39)	3501 (41)	1548 (36)
Any NSAID opioid prescription fills, n (%)	17,272 (56)	3817 (44)	2422 (56)
Concomitant csDMARDs, n (%)	21,460 (69)	4129 (48)	2812 (65)
Concomitant DMARDs, n (%)	14,289 (46)	3751 (44)	1822 (42)

Abbreviations: IQR: Interquartile range; NSAID: Non-steroid anti-inflammatory drug; TNF: Tumor necrosis factor

Comparative Safety of Biologic and Targeted Synthetic Disease Modifying Anti-Rheumatic Drugs for Cardiovascular Outcomes in Rheumatoid Arthritis

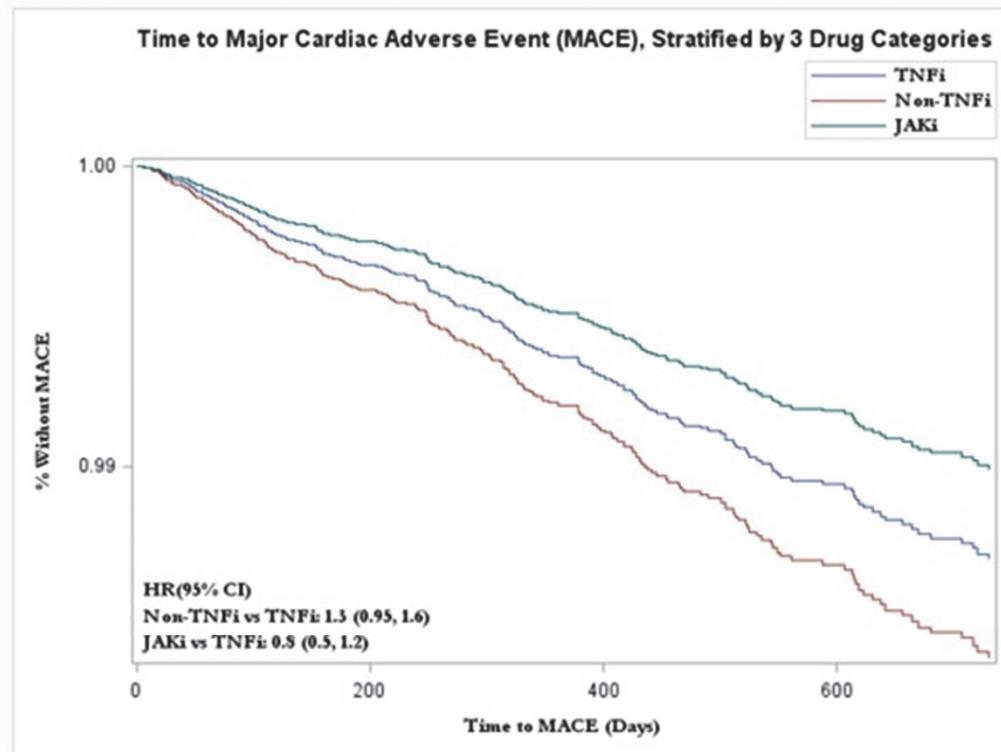
Table 2. Number and incidence rate of MACE outcomes within 2 years of initiating biologic drug per 10,000 person-years at risk, stratified by DMARD category.¹

	Raw n of MACE	Incidence rate of MACE /10,000 person-years (95% confidence interval)	Median (IQR) days to MACE (among those with MACE)
TNFi	202 (0.7%)	78 (68, 90)	207 (85, 378)
Non-TNFi	87 (1.0%)	150 (121, 185)	102 (48, 252)
JAKi	20 (0.5%)	66 (40, 102)	180 (94, 271)

Abbreviations: DMARD: disease-modifying antirheumatic drug; JAKi: Janus kinase inhibitors; MACE: Major adverse cardiovascular events; TNFi: tumor necrosis factor inhibitors

Comparative Safety of Biologic and Targeted Synthetic Disease Modifying Anti-Rheumatic Drugs for Cardiovascular Outcomes in Rheumatoid Arthritis

Figure 1. Kaplan-Meier curves showing adjusted HR* for incident MACE per different drug class exposures



*Models adjusted for age, sex, Charlson Comorbidity Index, frailty status, healthcare utilization within 12 months prior to starting treatment, days from RA diagnosis to initiating biologic, and disease-modifying antirheumatic drug, nonsteroidal anti-inflammatory drug and opioid fills in 12 months prior to starting treatment and glucocorticoid use 3 months prior to starting treatment)

Ejercicio



Remotely Supervised Weight Loss and Exercise Training Improves Disease Activity and Patient Reported Outcomes in Older Patients with Rheumatoid Arthritis

Brian Andonian, Leanna Ross, Alyssa Sudnick, Johanna Johnson, Carl Pieper, Connie Bales, Kathryn Porter Starr, William Kraus and Kim Huffman, Duke University, Durham, NC

- RCT, en pacientes mayores (60-80 años) previamente sedentarios, con AR y sobrepeso/obesidad (IMC 28-40 kg/m²)
- Efecto de una actuación remota supervisada de pérdida de peso y ejercicio (SWET) sobre la actividad de la enfermedad y los PROs.
- Cumplir los criterios clasificatorios 2010 ACR/EULAR AR.
- 16 semanas de SWET vs orientación de salud como tratamiento (grupo control CHAT).

Remotely Supervised Weight Loss and Exercise Training Improves Disease Activity and Patient Reported Outcomes in Older Patients with Rheumatoid Arthritis

Brian Andonian, Leanna Ross, Alyssa Sudnick, Johanna Johnson, Carl Pieper, Connie Bales, Kathryn Porter Starr, William Kraus and Kim Huffman, Duke University, Durham, NC

- **SWET:**
 - ejercicio aeróbico (150 minutos por semana de ejercicio moderado/intenso),
 - ejercicio de resistencia (2 días por semana)
 - dieta hipocalórica (objetivo de pérdida de peso del 7%)
- **CHAT:** 2 visitas basales de consejo dietético y de ejercicio seguido por práctica habitual

Fig 1. Study design

Study population:

Older, overweight,
seropositive
rheumatoid
arthritis



Remotely Supervised Weight Loss and Exercise Training Improves Disease Activity and Patient Reported Outcomes in Older Patients with Rheumatoid Arthritis

Brian Andonian, Leanna Ross, Alyssa Sudnick, Johanna Johnson, Carl Pieper, Connie Bales, Kathryn Porter Starr, William Kraus and Kim Huffman, Duke University, Durham, NC

- Grupo control CHAT (n=10, 9 mujeres, edad media 65.6 ± 5.4)
- SWET (n=10, 7 mujeres, edad media 67.7 ± 5.4)
 - Mejora significativa del DAS-28-PCR ($p=0.03$)
 - Mejora de los PROs: salud física, función física, salud mental y fatiga ($p < 0.05$).
- El descenso del DAS-28-PCR en todos los participantes (n=20) estuvo asociado con disminución del perímetro abdominal ($\rho=0.48$, $p=0.03$) y aumento de la fuerza muscular en el muslo ($\rho=-0.57$, $p=0.01$).

Table 1. Changes in outcomes pre- and post-intervention

Variable (units)	CHAT control intervention group			Remotely supervised SWET intervention group			Within group pre-post p-value	Between group absolute change p-value
	Pre (0 weeks) n=10	Post (16 weeks) n=10	Within group pre-post p-value	Pre (0 weeks) n=10	Post (16 weeks) n=10	Within group pre-post p-value		
Weight (kg)	86.3 (11.3)	84.1 (11.3)	0.03	83.0 (7.1)	78.2 (8.1)	0.002	0.03	★
Fat mass (kg)	42.0 (7.3)	39.8 (7.6)	0.01	37.0 (4.9)	32.3 (4.2)	0.002	0.04	★
Lean mass (kg)	44.5 (7.8)	44.9 (7.5)	0.43	46.6 (6.8)	46.6 (6.9)	1.0	0.68	
Waist circumference (cm)	100.1 (8.5)	98.71 (8.6)	0.20	97.6 (6.4)	91.2 (6.4)	0.003	0.002	★
Isometric knee extension average torque (Nm)	102.6 (48.1)	111.8 (48.0)	0.23	117.8 (37.8)	127.2 (31.5)	0.16	0.83	
DAS-28-CRP	3.1 (1.0)	2.9 (0.8)	0.26	2.9 (1.2)	2.1 (0.9)	0.01	0.03	★



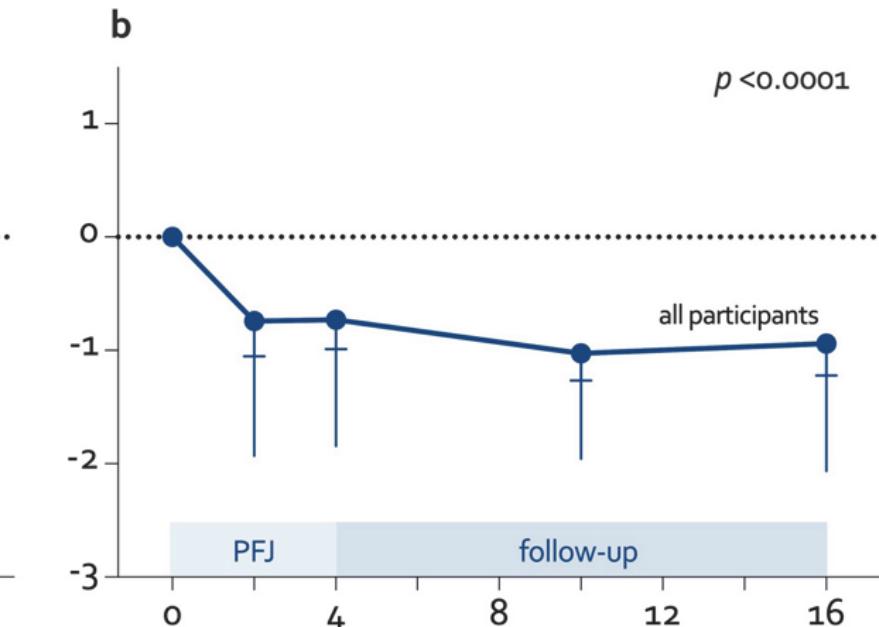
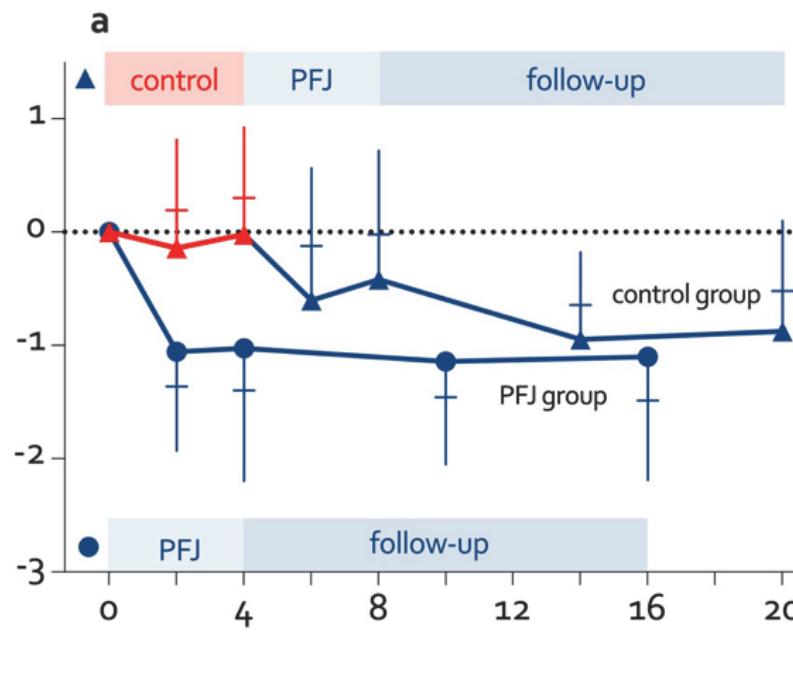
Long-term Effectiveness of a Lifestyle Program for Rheumatoid Arthritis: One-year Follow-up of the “Plants for Joints” Randomized Clinical Trial

- Programa de estilo de vida multidisciplinario (16 semanas) Plants for Joints (PJ).
 - Dieta basada en plantas, actividad física y manejo del stress.
 - Redujo el DAS-28 comparado con el tratamiento estándar en pacientes con AR.
- Seguimiento al año con dos visitas y seis webinars
- Los que tuvieron un DAS28 < 2.6, se les instruyó para reducir la medicación antirreumática según un protocolo específico (aumentaron, mantuvieron o redujeron el tratamiento según un comité independiente).

Long-term Effectiveness of a Lifestyle Program for Rheumatoid Arthritis: One-year Follow-up of the “Plants for Joints” Randomized Clinical Trial

- 65 (84%) de los 77 participantes, completaron el año de seguimiento.
- Mujeres el 92%, edad media de 55 años e IMC de 26 kg/m².
- De los 56 pacientes que usaban FAMEs, 27 (48%) la redujeron o suspendieron, 16 mantuvieron, y 13 la incrementaron

Change in DAS28



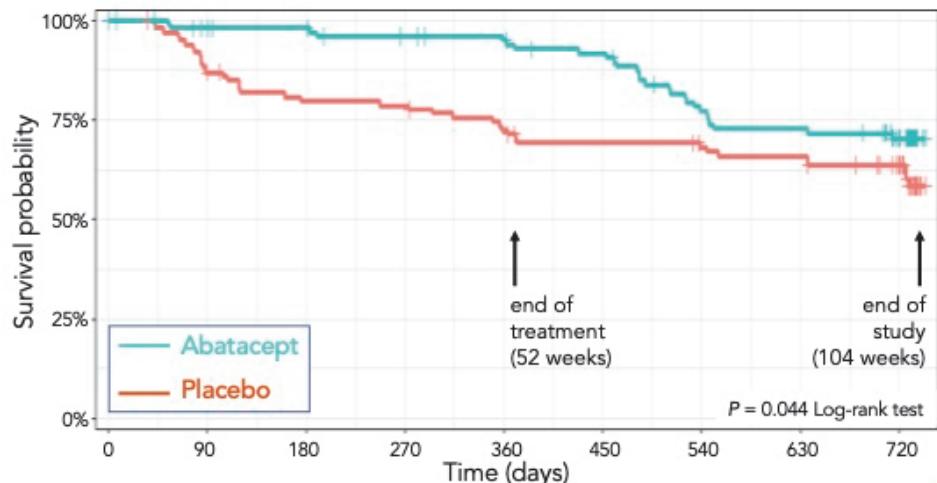
Abatacept in Individuals at Risk of Developing Rheumatoid Arthritis: Results from the Arthritis Prevention in the Pre-clinical Phase of RA with Abatacept (APIPPRA) Trial

- APIPPRA: Fase IIB, RCT-DB-PC.
- Artralgia y ACPA+FR+ ó ACPA+++FR-.
- PBO vs Abatacept 125 mg semanales durante 52 semanas y un seguimiento posterior de 52 semanas
- Desenlace: tiempo hasta la aparición de sinovitis clínica en 3 ó más articulaciones, o diagnóstico de AR que cumpla criterios 2010 de AR ACR/EULAR.
- Sinovitis confirmada con ecografía.

Abatacept in Individuals at Risk of Developing Rheumatoid Arthritis: Results from the Arthritis Prevention in the Pre-clinical Phase of RA with Abatacept (APIPPRA) Trial

- DIC 2014 y ENE 2019
- N=213 en 31 centros (28 UK y 3 Países Bajos)
- PBO= 103 y ABA= 110
- Pacientes con altos niveles de ACPA o un extenso portfolio de autoanticuerpos, tenían mas posibilidades de estar libres de artritis tras el tratamiento con ABA.

Abatacept in Individuals at Risk of Developing Rheumatoid Arthritis: Results from the Arthritis Prevention in the Pre-clinical Phase of RA with Abatacept (APIPPRA) Trial



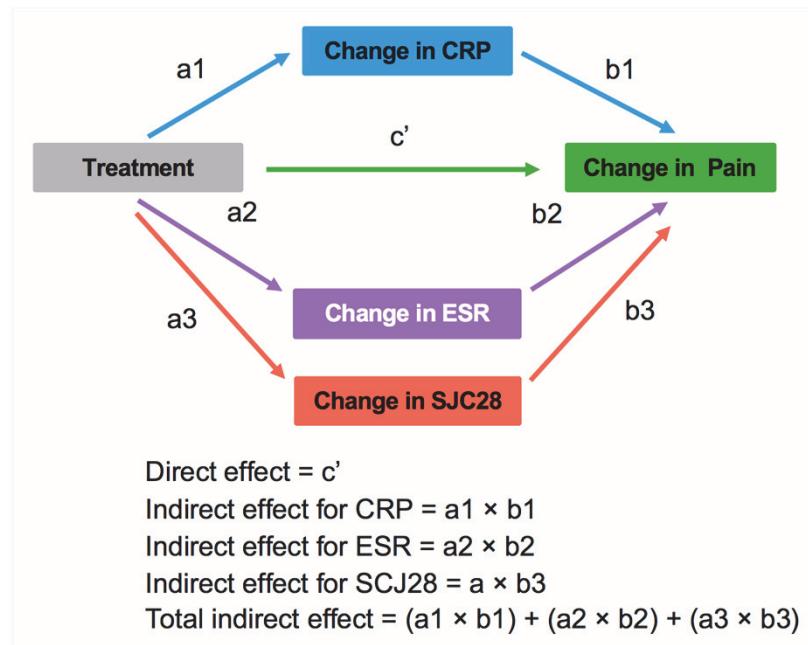
Number at risk:	103	87	77	76	69	64	61	59	49	Placebo
Cumulative events:		13	20	21	27	30	31	33	35	
Cumulative censored obs:		3	6	6	7	9	11	11	19	
Number at risk:	110	100	97	92	89	84	69	65	54	Abatacept
Cumulative events:		2	2	4	5	8	21	25	27	
Cumulative censored obs:		8	11	14	16	18	20	20	29	

strata

Direct and Indirect Effects of Upadacitinib or Adalimumab on Pain in Rheumatoid Arthritis: Results from a Randomized Phase 3 Study

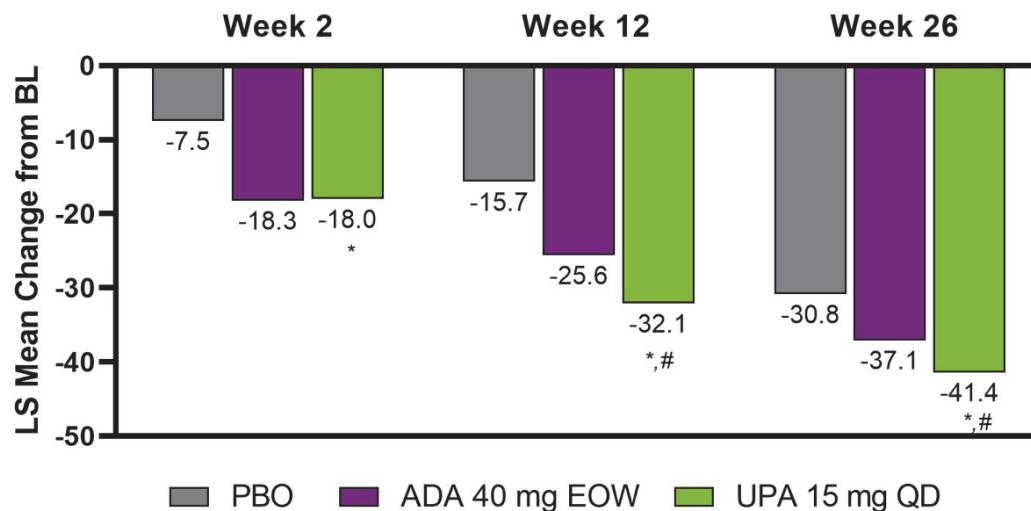
- SELECT-COMPARE
- N=1629
- PBO vs UPA vs ADA

Figure 2. Mediation Analysis Setup



Direct and Indirect Effects of Upadacitinib or Adalimumab on Pain in Rheumatoid Arthritis: Results from a Randomized Phase 3 Study

Figure 1. Change from Baseline in PtGA of Pain (mm) at Weeks 2, 12, and 26



Observed case analysis.

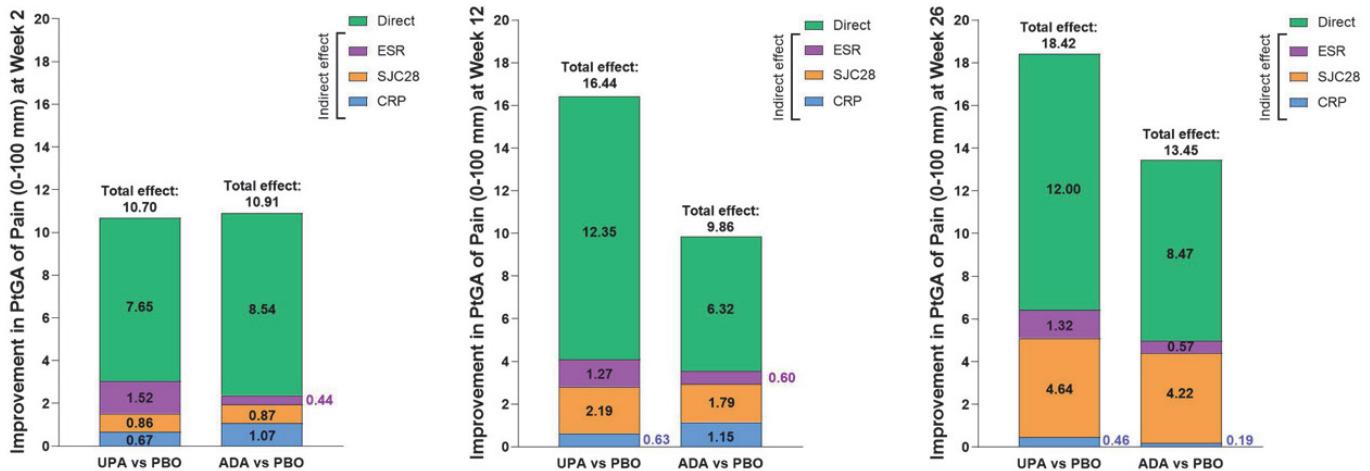
ADA, adalimumab; BL, baseline; EOW, every other week; LS, least squares; PBO, placebo; PtGA, Patient's Global Assessment; QD, once daily; UPA, upadacitinib.

*Statistically significant UPA vs PBO; $P<0.001$.

#Statistically significant UPA vs ADA; $P<0.05$.

Direct and Indirect Effects of Upadacitinib or Adalimumab on Pain in Rheumatoid Arthritis: Results from a Randomized Phase 3 Study

Figure 2. Direct and Indirect Effects of Treatment on Pain Assessed as Improvement in PtGA of Pain at Weeks 2, 12, and 26



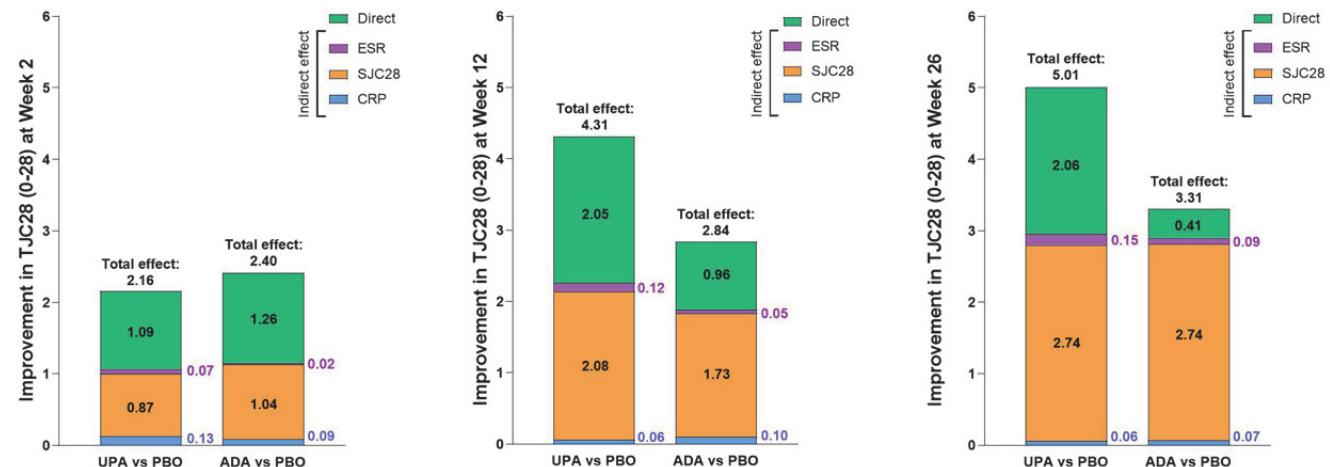
Week 2 and 12 data: observed case analysis; week 26 data: LOCF analysis.

ADA, adalimumab; LOCF, last observation carried forward; PBO, placebo; PtGA, Patient's Global Assessment; SJC28, swollen joint count based on 28 joints; UPA, upadacitinib.

Mediation analyses were conducted using the methods of Preacher and Hayes¹. Estimates for the following effects were generated, controlling for baseline value of PtGA of pain: direct effect of treatment on the outcome of improvement from baseline in PtGA of pain, indirect effects of treatment on the outcome via mediators of change from baseline in ESR/SJC28/CRP, and total effect of treatment on the outcome.

Direct and Indirect Effects of Upadacitinib or Adalimumab on Pain in Rheumatoid Arthritis: Results from a Randomized Phase 3 Study

Figure 3. Direct and Indirect Effects of Treatment on Pain Assessed as Improvement in TJC28 at Weeks 2, 12, and 26



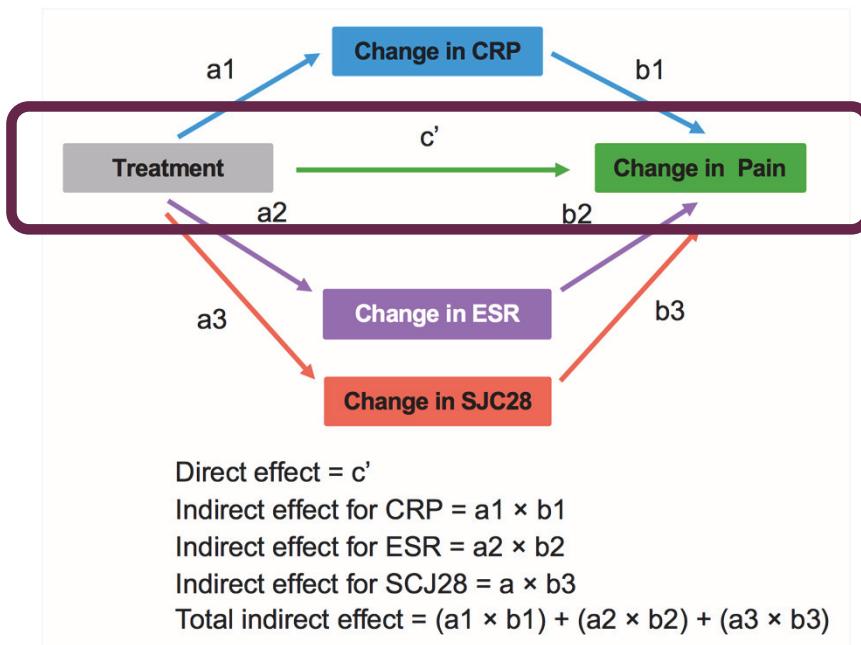
Week 2 and 12 data: observed case analysis; week 26 data: LOCF analysis.

ADA, adalimumab; LOCF, last observation carried forward; PBO, placebo; SJC28, swollen joint count based on 28 joints; TJC28, tender joint count based on 28 joints; UPA, upadacitinib.

Mediation analyses were conducted using the methods of Preacher and Hayes¹. Estimates for the following effects were generated, controlling for baseline value of TJC28: direct effect of treatment on the outcome of improvement from baseline in TJC28, indirect effects of treatment on the outcome via mediators of change from baseline in ESR/SJC28/CRP, and total effect of treatment on the outcome.

Direct and Indirect Effects of Upadacitinib or Adalimumab on Pain in Rheumatoid Arthritis: Results from a Randomized Phase 3 Study

Figure 2. Mediation Analysis Setup



ABSTRACT NUMBER: 0836

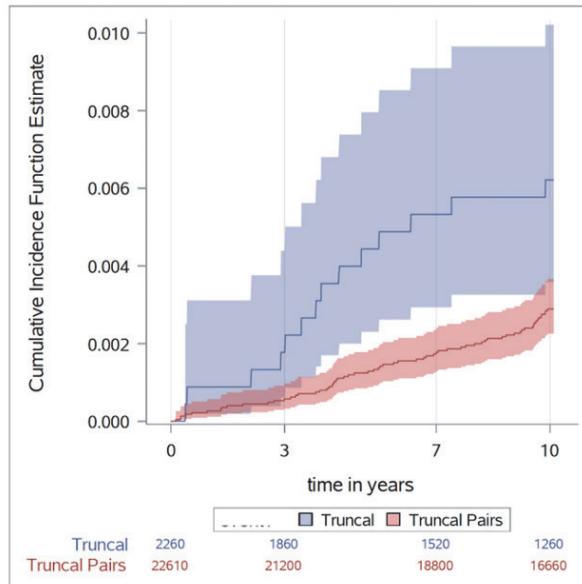
Vagotomy and Subsequent Risk of Rheumatoid Arthritis and Osteoarthritis: A Danish Register-Based Cohort Study

- Riesgo de desarrollar AR u OA tras vagotomía por cualquiera de sus 3 técnicas (tronco, selectiva y supraselectiva)
- Dinamarca. Enero 1977 a diciembre de 1995.
- Comparado con una cohorte sin vagotomía pareada por género y año de nacimiento.
- AR, OA y OA con recambio articular.

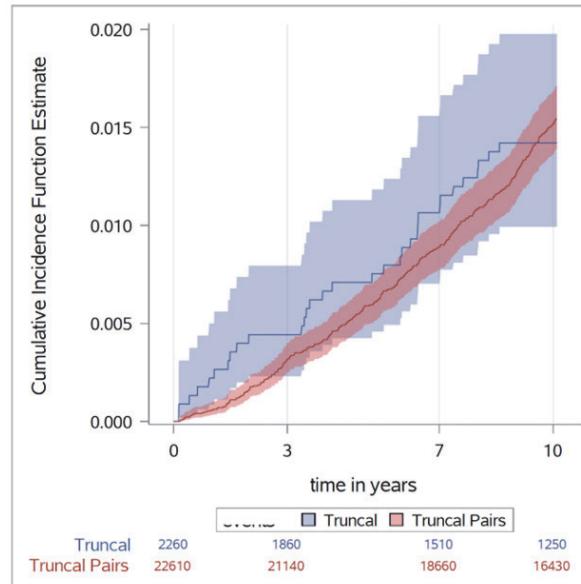
ABSTRACT NUMBER: 0836

Vagotomy and Subsequent Risk of Rheumatoid Arthritis and Osteoarthritis: A Danish Register-Based Cohort Study

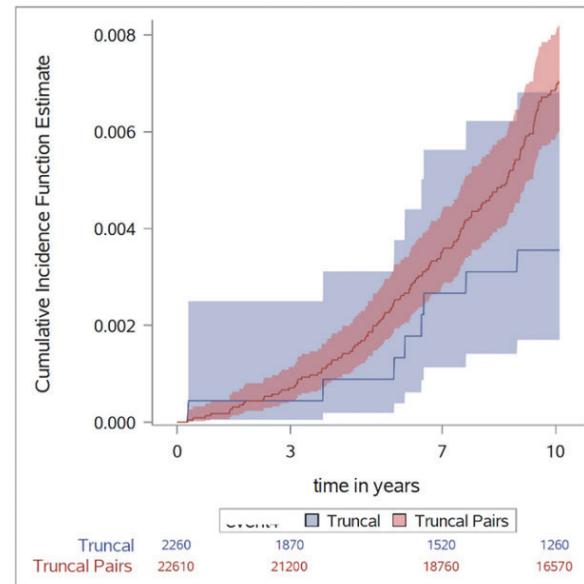
A.



B.



C.

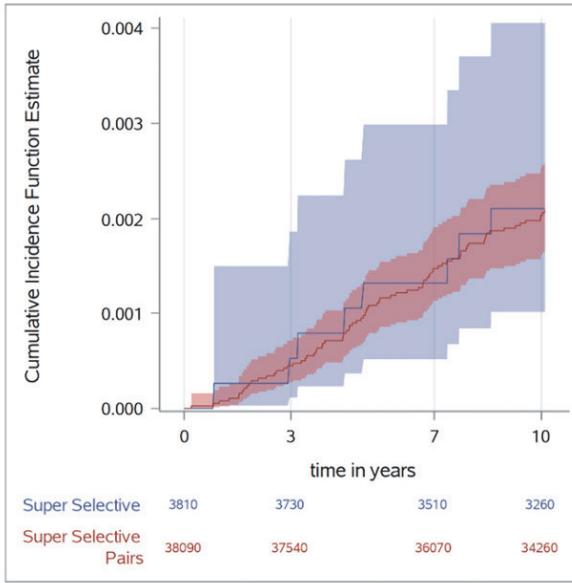


Cumulative incidence estimates for A. rheumatoid arthritis, B. osteoarthritis, and C. osteoarthritis with joint replacement, in subjects who underwent truncal vagotomy compared with a general population comparison cohort.

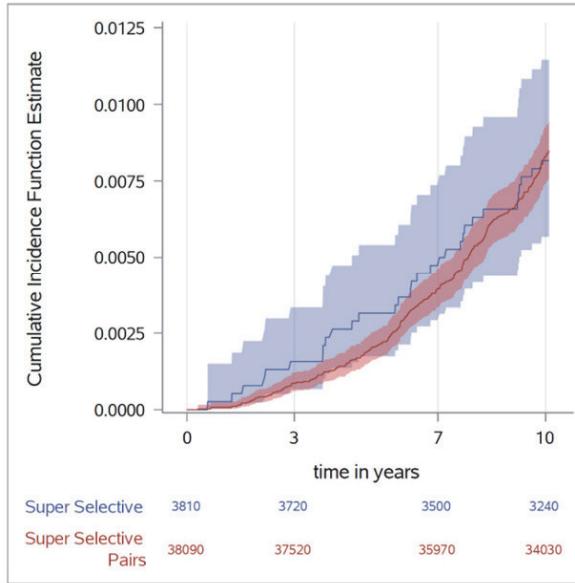
ABSTRACT NUMBER: 0836

Vagotomy and Subsequent Risk of Rheumatoid Arthritis and Osteoarthritis: A Danish Register-Based Cohort Study

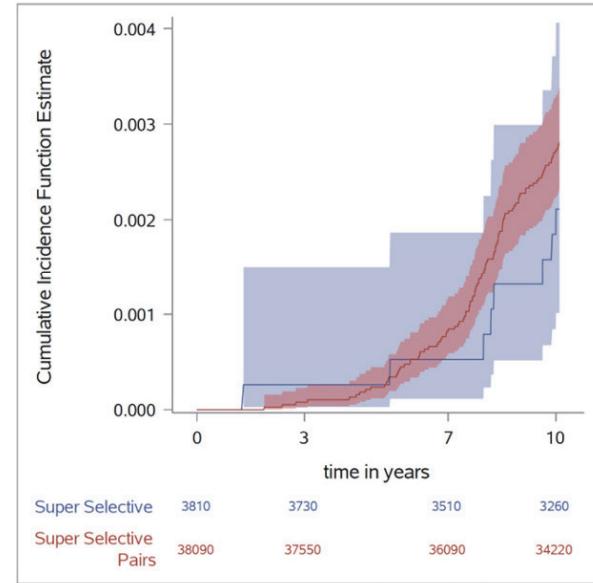
A.



B.



C.



Cumulative incidence estimates for A. rheumatoid arthritis, B. osteoarthritis, and C. osteoarthritis with joint replacement, in subjects who underwent superselective vagotomy compared with a general population comparison cohort.

Incidence and Risk of Developing RA or OA

RA
OA
OA w/ JR

Table 2. Incidence and risk of developing RA, OA, and OA with joint replacement after truncal or superselective vagotomy.

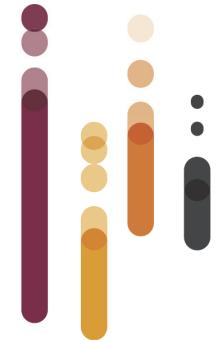
	Truncal Vagotomy Cohort (n = 2386)	General Population Comparison Cohort (n = 22610)	Superselective Vagotomy Cohort (n = 3610)	General Population Comparison Cohort (n = 38090)
Incident RA, n (%)	10 (0.7)	70 (0.3)	10 (0.3)	80 (0.2)
IR (95% CI)	10.2 (6.5-15.3)	7.2 (5.1-8.4)	12.1 (8.8-16.1)	8.9 (8.0-9.8)
Crude HR (95% CI)	2.49 (1.40-4.43)	1.0	1.05 (0.51-2.16)	1.0
Adjusted HR (95% CI)*	2.62 (1.47-4.67)	1.0	1.05 (0.51-2.17)	1.0
Incident OA, n (%)	30 (1.3)	350 (1.5)	30 (0.8)	340 (0.9)
IR (95% CI)	46.9 (38.4-56.7)	70.2 (60.8-73.7)	85.9 (76.8-95.7)	87.1 (85.2-90.2)
Crude HR (95% CI)	1.11 (0.77-1.59)	1.0	0.98 (0.68-1.40)	1.0
Adjusted HR (95% CI)*	1.26 (0.88-1.61)	1.0	1.00 (0.69-1.42)	1.0
Incident OA with joint replacement, n (%)	10 (0.4)	160 (0.7)	10 (0.26)	120 (0.31)
IR (95% CI)	25.7 (19.5-33.2)	45.7 (42.9-48.6)	50.4 (43.5-58.1)	50.4 (57.9-62.9)
Crude HR (95% CI)	0.61 (0.30-1.23)	1.0	0.69 (0.34-1.40)	1.0
Adjusted HR (95% CI)*	0.77 (0.38-1.57)	1.0	0.71 (0.35-1.46)	1.0

RA = rheumatoid arthritis; OA = osteoarthritis; IR = incidence rate per 1,000 person-years; HR = hazard ratio; 95% CI = 95% confidence interval.

*Adjusted for age, sex, and calendar year.

10 al 14 de
noviembre
2024

Ciudad San Diego
(USA)



ACRreview 23

#ACReview23



AstraZeneca 

Sociedad Española de
Reumatología