

Long term remission rates from a biologic clinic: 12 year real world data

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BACKGROUND

- Biologic therapies are used widely and greatly improve RA/PsA outcomes
- Ability to predict long-term remission and persistence remains limited
- This study explores predictors of remission and persistence in 12 yrs Follow up

METHODS

- Patients prospectively enrolled in a specific biologic clinic
- Outcomes at baseline, 1 and 12 yr post biologic therapy
- Predictors of biologic persistence and remission by EULAR criteria (DAS28-CRP <2.6) identified with univariate and multivariate analysis.

- RA patients were older, predominantly female and had more severe disease at baseline (Table 1)
- PsA patients had significantly better outcomes than RA patients, despite less methotrexate (Table 2).
- Subgroup (n=154) matched for DAS28-CRP showed higher remission in PsA at 1 and 12 yrs
- Initial biologic persistence [OR 4.98 (95% CI 1.83-13.56)] and male gender [OR 4.48 (95% CI 1.25-16.01)] predicted remission.

Table 2. Patient medications and outcomes

	Baseline			1 Year Review			12 Year Review		
	RA (n=274)	PsA (n=129)	p	RA (n=203)	PsA (n=96)	p	RA (n=179)	PsA (n=87)	p
Biologic									
Adalimumab	144 (52.6%)	47 (36.4%)	0.002	76 (44.7%)	27 (31.0%)	0.034	43 (25.6%)	28 (33.3%)	NS
Etanercept	100 (36.5%)	68 (52.7%)	0.002	62 (36.5%)	45 (51.7%)	0.019	48 (28.6%)	30 (35.7%)	NS
Infliximab	18 (6.6%)	14 (10.9%)	NS	13 (7.6%)	11 (12.6%)	NS	3 (1.8%)	8 (9.5%)	0.004
Rituximab	12 (4.4%)	0 (0%)	0.011	4 (2.4%)	0 (0%)		16 (9.5%)	0 (0%)	
Other	0 (0%)	0 (0%)		1 (0.6%)	0 (0%)		24 (14.3%)	8 (9.5%)	NS
None	0 (0%)	0 (0%)		14 (5.1%)	4 (3.1%)	NS	34 (20.2%)	10 (11.9%)	NS
Biologic Persistence	n/a	n/a	n/a	136 (49.6%)	76 (58.9%)	NS	66 (38.2%)	45 (52.3%)	NS
Methotrexate	176 (64.2%)	35 (27.3%)	<0.001	108 (64.8%)	21 (24.4%)	<0.001	72 (42.2%)	22 (25.9%)	0.008
Patient global health Visual Analogue Score	60 (0-100)	50 (0-100)	NS	30 (0-100)	20 (0-90)	<0.001	50 (0-100)	5 (0-100)	<0.001
TJC 28	9 (0-28)	6 (0-28)	<0.001	1 (0-28)	0 (0-20)	<0.001	0 (0-19)	0 (0-2)	0.019
SJC 28	9 (0-28)	5 (0-28)	<0.001	1 (0-28)	0 (0-25)	<0.001	0 (0-15)	0 (0-2)	<0.001
CRP	16 (2-158)	9 (0-108)	<0.001	4 (1-138)	4 (0-41)	0.034	3 (1-65)	2 (1-46)	<0.001
Progression of erosions	N/A	N/A	N/A	36 (28.1%)	5 (8.6%)	0.003	51 (31.9%)	12 (15%)	0.005
DAS28-CRP (all patients)	5.28 (1.10)	4.60 (1.10)	<0.001	3.25 (1.25)	2.5 (1.10)	<0.001	2.51 (0.99)	1.68 (0.69)	<0.001
Remission (all patients)	2 (0.8%)	6 (5.1%)	0.013	57 (34.5%)	44 (60.3%)	<0.001	63 (60.6%)	21 (47.7%)	0.005
DAS28-CRP (matched)	4.27 (0.55)	4.30 (0.58)	NS	3.13 (1.06)	2.33 (0.84)	<0.001	2.49 (0.84)	1.67 (0.47)	<0.001

CONCLUSIONS

- First study to show better long term (12 year) outcomes with biologic therapy in PsA compared to RA
- Persistence was high, one year persistence predicted long term biologic persistence with initial biologic agent and outcome.
- Interestingly, PsA patients had higher levels of employment, educational attainment, alcohol use and 12 year remission rates.

Table 1. Baseline characteristics

	RA (n=274)	PsA (n=129)	p
Age	55±11.9	44.8±12.2	<0.001
Female	207 (75.5%)	69 (53.5%)	<0.001
Disease Duration (years)	9 (0-51)	8 (0-40)	0.030
Highest level of education			
Primary School	70 (25.5%)	8 (8.2%)	0.003
Secondary School	120 (48.8%)	31 (31.6%)	0.004
University	56 (22.6%)	59 (60.2%)	<0.001
Employment			
Employed	37 (66.1%)	31 (91.2%)	0.008
Unemployed	8 (14.3%)	1 (2.9%)	NS
Student	0	1 (2.9%)	NS
Other	11 (19.6%)	1 (2.9%)	0.027
Hours worked (weekly)	37.2 (11.7)	41.1 (9.1)	NS
Smoking status			NS
Never	89 (35.6%)	50 (45.5%)	NS
Ex	94 (37.1%)	35 (31.8%)	NS
Current	67 (26.8%)	25 (22.7%)	NS
Alcohol (units per week)	2 (0-20)	4 (0-40)	0.033
HAQ	1.3 (0.64)	0.89 (0.64)	<0.001
Early morning stiffness (mins)	30 (0-1440)	30 (0-1440)	NS
RF positive	195 (77.1%)	2 (2.2%)	<0.001
Anti-CCP positive	31 (79.5%)	0 (0%)	<0.001
Erosions	90 (47.1%)	28 (31.5%)	0.013