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AB1223

RHEUMATOID ARTHRITIS PATIENTS INCLUDED IN GLUCOCORTICOID TRIALS MOSTLY RESEMBLE THOSE SEEN IN OBSERVATIONAL COHORTS: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Background: Randomised controlled trials (RCTs) are considered the gold standard in clinical research. Their results, however, may not be generalizable to patients in routine care.¹ Together with methotrexate, glucocorticoids (GCs) constitute the mainstay of therapy for many patients with rheumatoid arthritis (RA), but it is unclear whether trial evidence is actually generalizable to real-world patients.

Objectives: This review assesses to what extent RA patients participating in GC-RCTs differ from RA patients taking GCs in routine care.

Methods: This study was registered with PROSPERO (CRD42019134675). MEDLINE was searched for RCTs and, as comparators, cohort studies in RA evaluating systemic GC therapy. Cohorts were not allowed to exhibit apparent selection mechanisms concerning gender or age. Random-effects meta-analyses combined descriptive baseline characteristics that may modify the benefit-risk-ratio of various RA therapeutics. Meta-analyses were stratified by study type (RCT and CS). Stratified estimates were subsequently compared.

Results: 55 RCTs and ten cohort studies (21,657 participants overall) were included. Twelve characteristics (related to general demographics and disease activity) were reported frequently enough to allow for comparative analysis. Compared to cohorts, RCT participants were younger (-4.7 [-7.2 to -2.1] years) and had somewhat higher erythrocyte sedimentation rates (12 [6 to 18] mm/h) (Table 1). In the other ten characteristics, estimates did not differ significantly. Numerically, cohort patients had more longstanding disease and slightly more favourable disease levels in core set variables. Comorbidities could not be assessed.

Table 1. Pooled estimates

Outcome	RCT	k	Cohort	k	Contrast	(95% CI)	p
General demographics							
Age (years)	54.2	50	58.9	10	-4.7	(-7.2 to -2.1)	<0.001
Female (proportion)	0.70	52	0.73	10	0.89	(0.68 to 1.16)	0.38
Current or previous smokers (proportion)	0.59	3	0.51	2	1.38	(0.61 to 3.14)	0.44
BMI (kg/m ²)	25.9	5	25.9	3	0.0	(-1.9 to 1.9)	0.98
Disease duration (months)	56.5	43	85.1	7	-28.6	(-85.6 to 28.4)	0.33
Disease activity							
ESR (mm/h)	40.1	31	28.2	3	11.8	(5.7 to 18.0)	<0.001
DAS	5.3	24	4.9	5	0.4	(-0.1 to 0.9)	0.12
RF+, (proportion)	0.67	32	0.63	6	1.19	(0.80 to 1.78)	0.39
ACPA+, (proportion)	0.64	7	0.56	3	1.38	(0.64 to 3.00)	0.41
HAQ	1.3	31	1.1	4	0.2	(-0.1 to 0.5)	0.15
Pain (0-10)	5.2	26	4.8	2	0.4	(-0.8 to 1.6)	0.52
Patient global assessment (0-10)	5.2	17	4.9	3	0.3	(-0.9 to 1.5)	0.58

Conclusion: The results of our study suggest that evidence from RA GC-RCTs can be generalized to most patients in routine practice. We note that comorbidities – a frequent exclusion criterion for trial participation – could not be evaluated due to insufficient reporting. Our findings contrast with a similar study on RCTs investigating biologics in RA: There, trial participants were found to differ significantly in 4 out of 8 investigated baseline characteristics.²

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AB1224

MAJOR DEPRESSIVE DISORDER AMONG CYPRIOT PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS AND CORRELATION WITH CLINICAL CHARACTERISTICS AND DISEASE-SPECIFIC HEALTH-RELATED QUALITY OF LIFE

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Background: Major depressive disorder (MDD) is a common comorbidity in patients with chronic rheumatic conditions, and patients with systemic lupus erythematosus (SLE) have an increased risk of developing depression. The coexistence of SLE and MDD might lead to impaired health-related quality of life (HRQOL). Gaining a deeper understanding of the factors associated with MDD in SLE will allow us to develop strategies in order to prevent depression and achieve an early diagnosis and management.

Objectives: The aim of this study is to determine the contributing factors associated with MDD in Cypriot SLE patients and examine the correlation between disease-specific HRQOL domains and depression.

Methods: We conducted a cross-sectional study of SLE patients who fulfilled the SLICC-2012 criteria. The patients were recruited from August 2019 to January 2020. Baseline demographic data, clinical features, and therapeutic regimens were captured. Depression was assessed by the patient health questionnaire (PHQ)-9, a validated tool to screen and diagnosed the condition. Scores above ≥10 are indicating MDD. HRQOL was evaluated by a disease-specific validated questionnaire, LupusQoL-Greek. LupusQoL scores ranged between 0-100, with higher scores reflecting better QoL. The self-rated health status was examined, and the response was separate to poor/fair vs excellent/good. Demographic data, LupusQoL domains, clinical and other features of the SLE patients were described and compared between MDD (PHQ-9 ≥ 10) and non-MDD (PHQ-9 <10) groups using Wilcoxon ranksum tests for continuous variables and chi-square tests for categorical variables.

Results: A total of 88 SLE patients were included in the study, with a mean age of 48.6 (19-80), 71(80%) were women, and mean disease duration of 13.2 years (0-44). Compared to the non-MDD group, patients with MDD (n=32, 36%) were significantly older (mean age 53.5 vs 46.9; p=0.03) and more likely to have the following SLE manifestations: mucocutaneous, vascular, pulmonary and musculoskeletal involvement. Furthermore, patients with MDD were less likely to be clinical quiescent (34.3%) compared with the non-MDD group (57.1%) (P<0.05). Self-rated health described as poor/fair was markedly associated with MDD (p<0.001). The LupusQoL domains' scores were notably lower in patients with MDD (PHQ ≥ 10), with a statistically significant reduction in all LupusQoL domains, indicating that depression was associated with worse HRQOL (Table 1).

Table 1. Differences in 8 LupusQoL domain scores among SLE patients with and without major MDD (PHQ-9 ≥10)

LupusQoL Domains (0-100)	PHQ-9 <10 (non-MDD)	PHQ-9 ≥10 (MDD)	P-value
Physical Health	72.87 (81.2, 9.3-100)	40.01 (32.75, 0-90.6)	<0.0001
Pain	75.27 (75, 16.6-100)	43.2 (41.6, 0-100)	<0.0001
Planning	81.08 (91.6, 0-100)	44.51 (50, 0-100)	<0.0001
Intimate relationship	68.38 (75, 0-100)	46.25 (50, 0-100)	0.0382
Burden to others	79.73 (83.3, 16-100)	51.97 (50, 0-100)	0.0003
Emotional health	81.76 (85.4, 25-100)	50.14 (50, 0-91.6)	<0.0001
Body image	84.09 (90.8, 5-100)	58.45 (66.6, 0-100)	0.0004
Fatigue	72.08 (75, 18.7-100)	41.2 (40.6, 6.2-81.2)	<0.0001

Conclusion: To our knowledge, this is the first study demonstrating significantly lower scores among MDD relative non-MDD (based on PHQ-9) patients across all the 8 domains of LupusQoL; therefore, it adds to the current evidence that depression significantly impacts the quality of life of SLE. Predictors of MDD include older age, and involvement of the vascular, mucocutaneous, pulmonary, and musculoskeletal system. Additionally, a poor or fair description of self-rated health was a predictor of depression.

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AB1225

LIPID PROFILE COMPARISON IN RHEUMATOID ARTHRITIS AND PSORIATIC ARTHRITIS: A CASE-CONTROL STUDY

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Background: Rheumatoid arthritis (RA) and psoriatic arthritis (PsA) are autoimmune diseases, in both diseases it has been described that the main cause of morbidity and mortality is cardiovascular (CV) disease. Dyslipidemia is the most recognized CV risk factor. An association is recognized between the concentrations of total cholesterol (TC), high-density lipoprotein cholesterol (HDL-C), low-density lipoprotein cholesterol (LDL-C), total triglycerides (TG), atherogenic index (AI) and the risk of myocardial infarction (MI), stroke and fatal cardiovascular disease (CVD). The relationship between serum lipid levels and CVD risk is potentially paradoxical in RA but this relationship has not been clarified in PsA.

Objectives: To compare lipid profile between groups with RA, PsA and controls.

Methods: A cross-sectional observational study was designed, which included 95 patients between 45-75 years who fulfilled the CASPAR classification criteria for PsA, 95 patients between 45-75 years who fulfilled the ACR / EULAR 2010 classification criteria for RA and 95 age-matched controls. Concentrations of CT, HDL-C, LDL-C, TG and atherogenic index were compared between the groups. Clinical measures were compared using one-way ANOVA or Kruskal-Wallis tests. Post-hoc analysis was performed with Bonferroni's correction. A $p \leq 0.05$ was considered statistically significant. The data was analyzed using the SPSS version 25 software package.

Results: In our study, no significant difference in LDL-C was found between RA and PsA, however post-hoc analysis was performed where we found higher LDL-C levels among RA patients compared with controls (p 0.025). RA patients had higher HDL-C than PsA patients (p 0.006) but PsA had a higher HDL-C than controls (p 0.007). TC/HDL-C was higher in PsA than RA and controls (p 0.050). PsA patients were the group with the lowest HDL-C levels (p 0.007). In contrast RA were the groups with the highest HDL-C levels (p 0.007). (Table 1).

Table 1. Clinical parameters.

PARAMETER	RA	PsA	Controls	p
TC*	176.6 ± 37.2	176.3 ± 35.9	186.34 ± 33.172	0.089
TG**	132.7 (102.0-187.3)	131.0 (97.2-189.2)	118.35(88.2-162.25)	0.245
HDL-C**	50.7 (42.1-62.6)	46.7 (37.4-53.9)	51.7 (41.3-60)	0.007
LDL-C*	94.36 ± 21.70	97.71 ± 30.12	105.32 ± 31.35	0.025
TC/HDL-C**	3.41 (2.81-4.08)	3.74 (3.17-4.47)	3.49 (2.99-4.52)	0.050

*Data are reported in mean ± SD

**Data is reported in median (IQR)

Conclusion: Patients with inflammatory joint diseases have more adverse lipid profiles than controls.

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AB1226

PREDICTING CARDIOVASCULAR EVENTS IN PATIENTS WITH SPONDYLOARTHRITIS AND PSORIATIC ARTHRITIS: THREE RISK ALGORITHMS

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Background: Inflammatory joint disorders have an increased cardiovascular (CV) risk when compared with general population. In 2009, the EULAR task force advocated the use of a 1.5 multiplication factor for these risk prediction models in Rheumatoid Arthritis patients with specific characteristics. The SCORE was not modified in patients with Psoriatic Arthritis (PsA) and Spondyloarthritis (SpA) in accordance with the present EULAR recommendations.

Objectives: To assess the accuracy of several CV risk algorithms to predict an event and determine its sensibility and specificity.

Methods: A retrospective analysis of PsA and SpA patients, followed in our department in Local Health Unit of Guarda during one year (2019) was done. We determined CV risk profile of our patients using the following data: gender, age, smoking status, blood pressure, lipid values and diabetes mellitus status. These variables were used to calculate risk prediction algorithms such as Framingham, the American College of Cardiology/American Heart Association (ACC/AHA) risk score and the Systematic Coronary Risk Evaluation (SCORE). Discriminatory ability for CV risk prediction was evaluated by the area under the ROC curves. Sensibility and specificity were calculated for low-to-intermediate and intermediate-to-high risk cut-offs. Cut-off values that mark the high risk were defined in 5% for SCORE, 20% for Framingham and ACC/AHA.

Results: 112 caucasian patients were included, 61% female with a mean age of 52.15±14.18 years and mean BMI of 27.11±4.81kg/m². 7 patients weren't eligible to apply these cardiovascular scores. 8 patients were identified with non-fatal cardiovascular events (2 cases of stroke, 5 cases of myocardial infarction and 1 case of thrombophlebitis). 69 patients diagnosed with SpA and 43 with PsA, five CV events identified in SpA patients and three in PsA patients. Area under the ROC in SpA were 0.729 (95% CI 0.461 to 0.996) for SCORE, 0.839 (95% CI 0.735 to 0.943) for Framingham and 0.804 (95% CI 0.683 to 0.925) for ACC/AHA. Area under the ROC in PsA patients were 0.603 (95% CI 0.327 to 0.879) for SCORE, 0.660 (95% CI 0.326 to 0.995) for Framingham and 0.804 (95% CI 0.683 to 0.925) for ACC/AHA. Sensibility and specificity were discriminated in table 1.

Table 1. Sensibility, specificity, positive predictive value (PPV) and negative predictive value (NPV) of CV risk algorithms

	Sensibility (%)	Specificity (%)	PPV (%)	NPV (%)
SCORE > 1%				
SpA	75	63	18	96
PsA	100	41	5	100
SCORE > 5%				
SpA	NA	NA	NA	NA
PsA	0	93	0	97
Framingham >10%				
SpA	83	78	28	98
PsA	50	51	5	95
Framingham >20%				
SpA	33	86	20	93
PsA	50	69	8	96
ACC/AHA >5%				
SpA	67	77	29	94
PsA	100	44	9	100
ACC/AHA >20%				
SpA	17	86	14	88
PsA	50	83	14	97

Conclusion: A good discrimination between patients with or without CV events has been demonstrated by area under the ROC curve, particularly to SpA patients. In PsA, the sample was smaller, which represents a limitation in this study. SCORE >5% did not identify CV events, therefore sensibility couldn't be calculated. Overall, the algorithms studied presented a low sensibility, underestimating CV risk. This could be explained since disease-related factors are not reflected in these scores. In our opinion, better algorithms are needed to correctly assess cardiovascular risk algorithms for SpA and PsA, since the majority of the events occur in patients with low-intermediate risk.

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AB1227

PREVALENCE OF RHEUMATIC MUSCULOSKELETAL DISORDERS IN A RURAL AREA OF UPPER EGYPT: WHO-ILAR COPCORD BASED COMMUNITY STUDY

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