AB0237

ANALYSIS OF THE IMPACT OF CONCOMITANT USE OF CORTICOSTEROIDS ON THE CLINICAL OUTCOMES OF PATIENTS WITH LONG-TERM RHEUMATOID ARTHRITIS IN DIFFERENT TREATMENTS

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Objectives: To analyse the impact of the concomitant use of corticosteroids on the treatment of patients with long-term rheumatoid arthritis in different clinical outcomes.

Methods: A cross-sectional study was carried out in a sample of 100 patients with rheumatoid arthritis attended at specialised centres in rheumatology in Florianópolis. Validated instruments were used to evaluate the disease activity (DAS-28 VHS, DAS-28 PCR, SDAI and CDAI), functional ability (HAQ-DI) and quality of life (SF-12 and SF-6D). Statistical analysis was performed using chi-square test (Pearson), Fisher's exact test, Student's t-test, seeking to study the association between the independent variables and the use of corticosteroids.

Results: The mean disease duration of the patients was 15.1±8.7 years, which of, 25% used corticosteroids, with an average dose of 6.7±3.9 mg/day. The mean of the physical component summary (PCS) of SF-12 increased significantly by 1.87 points (47.72±3.23 vs 45.85±2.52 p=0.013) in patients who used corticosteroids, on the other hand, in the mental component summary (MCS) we observed a reduction of the mean by 1.5 points (57.91±3.68 vs 56.41±2.98 p=0.046) in these patients. In the association between the use of corticosteroids with ICADs, HAQ and SF-6D no differences were found independent of the synthetic and/or biological DMARD used.

Conclusions: Use of corticosteroids in different treatment strategies is not associated with an increase in the frequency of clinical remission in patients with rheumatoid arthritis. In patients using corticosteroids there was a better quality of life evaluated by the PCS, but not by the MCS.

Disclosure of Interest: None declared

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AB0238

PATIENT-CENTRED APPROACH TO MANAGEMENT OF INFLAMMATORY ARTHRITIS WAS ASSOCIATED WITH IMPROVED SATISFACTION OF CARE AND PERCEIVED TREATMENT BENEFIT

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Background: Recently, there has been a paradigm shift from a paternalistic doctor-patient relationship towards more holistic, patient-centred care aimed at promoting patient autonomy. However, the effect of patient-centred care on important clinical outcomes, like patient satisfaction and disability, is unknown.

Objectives: To investigate how the various aspects of patients' experiences of the care they received for their inflammatory arthritis was correlated with disease activity and health satisfaction, and use this to guide our clinical practice.

Methods: 115 questionnaires (including 51 questions, in addition to HAQ) were randomly given to patients with inflammatory arthritis who attended rheumatology outpatient clinics at University College Hospital, London between November 2014 and January 2015 (104 were returned –90% response rate). Questions were semi-structured using a Likert scale and focused on diagnosis, symptomatology, treatment history, health status and experiences of clinic attendance. The strength of association between health satisfaction and experience of care was correlated using Spearman's correlation test (p<0.05 was considered statistically significant).

Results: We calculated correlations between various aspects of patients' experiences of their care with other components of the questionnaire (table 1).

Conclusions: Patients who felt that they experienced a more patient-centred approach (through greater involvement in clinical decisions, emotional support and ease of contact with specialists) reported greater satisfaction and regarded their treatment as more efficacious. This suggests that clinicians who go beyond their role of medically managing inflammatory arthritis to provide more holistic care may improve patient-orientated health outcomes.

Patients in older age groups find it easier to contact the department, perhaps because they have more free time to make and receive calls. As ease of contact is a strong predictor of overall patient satisfaction, employing ideas to increase accessibility for younger age groups, such as improved access beyond working hours may improve satisfaction.

The positive correlation of HAQ with employment status and age is expected, as HAQ is the current gold standard measure of functional status. This reaffirms its accuracy in clinical practice as a measure of a functional ability.

Further research into comparing patients' experience of their care with objective measures of disease activity is needed.

Abstract AB0238 – Table 1

	Symptoms duration (years)	Age (years)	Overall satisfaction related to the physical health (1 = not satisfied at all)	How active the disease was in the past week (1 = well controlled; 5 = not controlled at all)	Treatment efficacy (1 = effective; 5 = not effective at all)	Treatment tolerability (1 = always tolerable; 5 = not tolerable at all)	Being currently employed (1 = employed full time; 5 = not employed)
Involved in decision making about care	R: 0.011297 P: 0.90903	R: -0.183036 P: 0.16768	R: 0.3346 P: 0.00063	R: 0.14366 P: 0.14972	R: 0.252561 P: 0.01134	R: 0.19077 P: 0.05039	R: -0.00486 P: 0.76294
Receiving appropriate emotional support	R: -0.189964 P: 0.16175	R: -0.12332 P: 0.223	R: 0.38467 P: 0.00447	R: 0.166791 P: 0.09903	R: 0.274512 P: 0.00651	R: 0.116975 P: 0.27665	R: -0.017764 P: 0.86075
Easy to contact a rheumatology team member	R: -0.022576 P: 0.80775	R: -0.360088 P: 0.00379	R: 0.276208 P: 0.00755	R: 0.082591 P: 0.44676	R: 0.235218 P: 0.03164	R: 0.049335 P: 0.63861	R: -0.003714 P: 0.95665
Given enough educational information about the disease	R: -0.04471 P: 0.65545	R: -0.105336 P: 0.2716	R: 0.11718 P: 0.24553	R: 0.080131 P: 0.4227	R: 0.132526 P: 0.25247	R: 0.115265 P: 0.23747	R: -0.122743 P: 0.21906
The conventional DMARD therapy – 1 On biologic treatment	R: 0.007809 P: 0.93887	R: -0.019348 P: 0.85002	R: -0.154008 P: 0.13599	R: -0.030863 P: 0.7127	R: -0.199917 P: 0.05145	R: -0.153277 P: 0.18616	R: -0.041016 P: 0.68842
HAQ	R: 0.090312 P: 0.32707	R: 0.436793 P: 0.0	R: -0.07626 P: 0.11083	R: 0.139622 P: 0.0701	R: -0.00006 P: 0.975	R: 0.002187 P: 0.98641	R: 0.489227 P: 0.0

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AB0239

DEVELOPMENT OF A NOVEL „MOLECULAR DISEASE ACTIVITY“ TOOL COMPOSED OF 8 SERUM BIOMARKERS FOR MONITORING RHEUMATOID ARTHRITIS

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Background: Accurate disease activity measurement is a key component of rheumatoid arthritis (RA) management. In 2012, multi-biomarker disease activity (MBDA) test using 12 serum proteins was presented¹.

Objectives: To develop a novel test for measuring inflammatory activity in RA.

Methods: Serum samples were obtained from 82 patients with RA (60 females, median disease duration 4.2 years, median age 55.2 years, RF positivity 60.3%, ACPA positivity 69.7%). A detailed stepwise analysis of 20 candidate biomarkers selected from the literature search (IL1β, IL-6, IL-7, IL-8, IL-12p70, IL-17A, IL-22, IL-33, IL-34, IFNγ, VEGF, YKL-40, CXCL-13, MMP-3, resistin, visfatin, leptin, adiponectin, calprotectin and CRP) was performed. Methods of factor analysis (a statistical method used to describe variability among observed, correlated variables in terms of a potentially lower number of unobserved variables called factors) were used in order to develop a tool composed of different serum markers that would optimally reflect disease activity in RA. Spearman correlation index was used to explore associations between newly designed tool and clinical as well as ultrasound parameters (German US7 score) of disease activity.

Results: We have developed a „Molecular Disease Activity“ test covering underlying pathophysiological processes composed of 8 serum markers: calprotectin, CRP, IL-6, MMP-3, VEGF, resistin, IL-22 and IL-7 that optimally reflected inflammatory activity in RA. This model was significantly associated with clinical (DAS28-ESR, DAS29-CRP, CDAI, SDAI) and ultrasound variables (PD syn score, GS syn score) of disease activity in RA, as shown in table 1.

Abstract AB0239 – Table 1. Cross-sectional correlations between „Molecular Disease Activity“ tool composed of 8 biomarkers and clinical and ultrasound parameters of disease activity

Parameters	Molecular disease activity (factor score)	p (significance)
DAS28-ESR	0.664**	<0.001
DAS28-CRP	0.666**	<0.001
SDAI	0.731**	<0.001
CDAI	0.669**	<0.001
SJC	0.546**	<0.001
GS syn score	0.657**	<0.001
PD syn score	0.701**	<0.001

** Correlation is significant at ≤0.01

CDAI, Clinical Disease Activity Index; DAS28-CRP, Disease Activity Score with C-reactive protein; DAS28-ESR, Disease Activity Score with erythrocyte sedimentation rate; GS syn, Grey Scale synovitis; PD syn, Power Doppler synovitis; SDAI, Simplified Disease Activity Index; SJC, swollen joint count

Conclusions: We believe that this newly designed test based on 8 serum markers may contribute to more accurate measurement of inflammatory activity in

RA and improvement of patients' outcomes. Further evaluation of this tool in a larger cohort is needed.

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AB0240

REDUCTION IN FATIGUE AND PAIN ARE ASSOCIATED WITH IMPROVED WORK PRODUCTIVITY IN PATIENTS WITH RA

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Background: Despite current treatment options, patients with rheumatoid arthritis (RA) report fatigue and pain, important determinants of quality of life.¹ In prior analyses of a Phase 3 trial of baricitinib (RA-BEAM), baricitinib demonstrated superiority in pain and fatigue reduction over MTX and adalimumab² and this pain reduction was associated with improvement in work productivity.³

Objectives: In this *post hoc* analysis of RA-BEAM, the relationship between fatigue and pain with work productivity was assessed.

Methods: Fatigue was measured with the Functional Assessment of Chronic Illness Therapy-Fatigue (FACIT-F, range of 0–52, higher scores represent less fatigue) and pain with the patient's assessment of pain (0–100 mm VAS, higher scores represent greater pain). The Work Productivity and Activity Impairment Questionnaire-RA (WPAI-RA) instrument evaluated the percentages of activity impairment due to RA (impairment in regular daily activities), work-time missed due to RA (absenteeism), impairment while working due to RA (presenteeism), and overall work impairment due to RA (work productivity loss). Analyses were based on pooled data from randomised patients who received ≥ 1 dose of study drug. Analyses for impairment in regular daily activities included all patients and for absenteeism, presenteeism, and work productivity loss, patients employed both at baseline and at Weeks 12 or 24 were included. Pain was divided into pain reduction groups (<30%, 30%–<50%, $\geq 50\%$) and actual pain score (≤ 10 mm, >10–<20, ≥ 20 –<40, ≥ 40 mm); fatigue was divided into fatigue improvement groups (<3.56, ≥ 3.56) and actual FACIT-F normative value score (<40, ≥ 40). Pairwise comparisons on improvement in WPAI-RA scores between pain/fatigue reduction groups at Weeks 12 and 24 were assessed by ANCOVA.

Results: At baseline across treatment groups, patients reported impairment in all of the WPAI-RA domain scores (absenteeism: 12%–13%, presenteeism: 42%–46%, work productivity loss: 45%–49%, activity impairment: 56%–58%). Reductions in pain and fatigue were associated with improvements in regular daily activities, presenteeism, and work productivity (table 1). Patients who reported lower levels of pain and fatigue tended to experience greater improvement in presenteeism, work productivity, and regular daily activities compared to patients with higher levels of pain or fatigue (table 1). When patients reached a minimal pain level (pain VAS ≤ 10 mm), no significant differences were observed in presenteeism and work productivity between patients with different levels of fatigue whereas regular daily activity continued to improve as fatigue improved ($p \leq 0.001$; table 1). No trends were observed with absenteeism. Similar results were observed by treatment group.

Abstract AB0240 – Table 1. Improvement in WPAI Domain Scores at Weeks 12 and 24

	Regular Daily Activities		Absenteeism		Presenteeism		Work Productivity	
	FACIT-F <40	FACIT-F ≥ 40	FACIT-F <40	FACIT-F ≥ 40	FACIT-F <40	FACIT-F ≥ 40	FACIT-F <40	FACIT-F ≥ 40
Pain VAS ≤ 10 mm								
Week 12	32.9	32.0**	4.1	2.4	32.0	26.1	30.5	26.0
Week 24	30.8	38.5**	4.2	3.1	34.2	28.6	35.5	27.5
10< Pain VAS ≤ 20 mm								
Week 12	24.8	30.3**	-0.2	3.9	13.3	26.5*	10.0	26.8*
Week 24	27.7	28.8**	9.5	0.8	9.5	22.0*	8.7	21.5**
20< Pain VAS ≤ 40 mm								
Week 12	20.1	22.4**	-2.6	1.5*	9.3	17.9**	7.0	17.9**
Week 24	20.2	20.0**	-1.2	-0.3*	11.5	13.9**	8.1	14.3**
Pain VAS >40 mm								
Week 12	7.4	9.3**	2.5	4.6*	-0.7	10.9**	-1.6	12.1**
Week 24	5.4	11.0**	3.2	3.2*	-3.4	7.5**	-5.1	7.5**

* $p \leq 0.05$, ** $p \leq 0.001$ for comparisons between FACIT-F groups within each pain group

Conclusions: Reductions in pain and fatigue were associated with improved regular daily activity, presenteeism, and work productivity in RA, with larger reductions related to more improvement. When patients achieved minimal levels of

pain, similar improvements in presenteeism and work productivity were observed regardless of fatigue level.

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AB0241

WHAT PROPORTION OF RA PATIENTS ARE TRULY IN REMISSION? A SURVEY OF RHEUMATOLOGISTS OF THE AUVERGNE REGION OF FRANCE

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Background: The treatment of rheumatoid arthritis (RA) is aimed to achieve remission.

Objectives: To determine the proportion of RA patients in remission among the population treated by rheumatologists in Auvergne, France.

Methods: A 3 month survey involving 24 rheumatologists, not practicing at university hospitals, from the Auvergne region of France. The rheumatologists completed records on each RA patient detailing the parameters of RA activity (tender joint count, swollen joint count, pain VAS, patient's assessed activity VAS, physician's assessed activity VAS, ESR and CRP), as well as the RA treatment administered, and if this treatment was modified.

Results: Overall, 15 rheumatologists provided 455 records. These comprised 330 women (74%) and 125 men, aged on average 64.8 years old ± 12.6 . The patients had suffered from RA for 7 years on average, ⁴⁻¹⁴ 77.3% were positive for rheumatoid factor, and 76.2% for anti-CCP. They underwent the following treatments: NSAIDs (19%), corticoids (24.4%; 5 mg⁴⁻⁶), methotrexate (80.4%; 15 mg.¹⁰⁻¹⁵ leflunomide (4.4%), hydroxychloroquine (11%), sulfasalazine (2.4%), anti-TNF (21.9%), other biotherapy (8.8%), no DMARD (3.1%), ≥ 2 DMARDs (31.8%). The proportion of patients in remission varied depending on different definitions as follows: DAS28-ESR ≤ 2.6 : 61.5% (low activity: 79%); DAS28-CRP ≤ 2.4 : 59.5%, DAS 28-CRP ≤ 2.1 : 47.2%; SDAI ≤ 3.3 : 40.1% (low activity: 80%); CDAI ≤ 2.8 : 36.0% (low activity: 81.5%); ACR/EULAR: 31.8%; simplified ACR/EULAR: 39.1%; physician-assessed remission (VAS ≤ 1): 52.3%; patient-assessed remission (VAS ≤ 1): 47.3%. There was moderate to good correlation between the ACR/EULAR and SDAI criteria ($\kappa = 0.70$) and CDAI criteria ($\kappa = 0.72$), while there was weak correlation between ACR/EULAR and DAS 28-ESR ($\kappa = 0.45$). The physicians' and patients' assessments did not correlate well with the remission criteria. Compared to those who were not in remission, the patients assessed as being in remission according to DAS28-ESR and ACR/EULAR criteria were younger, had been treated with less corticoids, had more frequently received anti-TNF, and had less frequently had their treatment modified.

Conclusions: Our findings were reassuring, with 32% (ACR/EULAR) to 62% (DAS) of RA patients followed up by rheumatologists outside of university hospitals assessed as being in remission, and 80% presenting with low disease activity. A total of 97% received DMARD, 30% received biotherapy, and a quarter corticoids. We found moderate to good correlation between ACR/EULAR and SDAI and CDAI; whereas there was low correlation between ACR/EULAR and DAS 28-ESR. The physicians' and patients' assessments did not correlate well with the remission criteria.

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