OP0136

SIBLINGS OF PATIENTS WITH RHEUMATOID ARTHRITIS ARE AT INCREASED RISK OF ACUTE CORONARY SYNDROME

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Background: Patients with rheumatoid arthritis (RA) are at increased risk of cardiovascular disease such as acute coronary syndromes (ACS), which cannot entirely be explained by traditional cardiovascular risk factors. Studies have shown an association between RA disease severity and risk of ACS, speaking for a contribution of the RA disease *per se* to the excess ACS risk. In a recent report, however, we demonstrated that despite more efficient control of inflammation in RA during the recent years, the excess risk for ACS among patients with RA compared to the general population remains¹. This finding suggests that besides effects related to the RA disease *per se*, there may be a shared susceptibility. If the excess risk of ACS in patients with RA were increased due to this, an increased risk of ACS would be observed also in individuals with a similar genetic set-up and background as the patients with RA, such as their siblings.

Objectives: To investigate any potential shared susceptibility between RA and ACS by estimating the risk of ACS in full siblings of patients with (vs. without) RA.

Methods: We used the Swedish Rheumatology Quality register (SRQ) to identify an early RA cohort diagnosed between 1996–2015, which was linked to the Swedish Multigeneration Register, Patient Register, the Cause of Death register, and the Total Population Register. Through this, we sampled five general population comparator subjects to each patient with RA, matched by birth year and sex, and identified all full siblings to patients with RA and for their comparator subjects born within five years of their index case. The comparators, and all siblings, were required to be alive and living in Sweden at the time of the index patient's RA diagnosis (=start of follow-up). All unique individuals were then followed for ACS (defined as first ever hospitalisation for ACS (ICD10: I21 or I20.0) or MI listed as the cause of death), and censored at death, migration, RA diagnosis (for non-RA subjects) or the end of the study (Dec 31 st 2015). We calculated hazard ratios (HR) using a Cox proportional hazards model, adjusting for age, sex and calendar period of diagnosis. Confidence intervals (CI) were estimated using a robust sandwich estimator.

Results: We identified 7492 patients with RA who had 10 671 full siblings, and 35 120 population comparator subjects with 47 137 full siblings. The HR for ACS was 1.44 (95% CI: 1.25 to 1.66) and 1.23 (95% CI: 1.09 to 1.40) for patients with RA and their siblings, respectively, compared to the comparator subjects. A direct comparison between the RA patients and their RA-free siblings confirmed the familial association between RA and ACS, HR 1.19 (95% CI: 1.02 to 1.38).

Conclusions: The increased risk of ACS in siblings of patients with RA a) provide evidence of shared susceptibility between RA and ACS, the nature of which needs to be further investigated, and b) suggests that to bring down the CV risk in RA to that in the general population, cardiopreventive measures must go beyond optimised RA disease control.

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OP0137

ASSESSING THE RISK OF RA PATIENTS FOR COMORBID CONDITIONS THROUGH A STRUCTURED NURSE-LED INTERVIEW – THE ERIKO STUDY

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Background: Assessment of comorbidities in rheumatoid arthritis (RA) has proven to be difficult for the rheumatologist due to lack of time leading to considerable deficits. Nurse-led programs on RA comorbidity management might solve this problem and have been reported to be beneficial.¹

Methods: The cluster randomised multicentre study ERIKO longitudinally assessed the general health status of patients with RA in Germany applying a

nurse-led scoring algorithm for individual risk profiles (ERIKO-Score). The ERIKO-Score is a composite score evaluating the following risk factors: cardiovascular (CV) risk (ESC-guideline), infection risk (RABBIT risk calculator), vaccination status (guideline), fracture risk (FRAX), tooth status (PSI), depression (PHQ-9) and health-related quality of life (hrQoL, RAID). The outcome was translated into a three-level ordinal score defined by the categories low, intermediate or high risk with 0, 1 and 2 points, respectively. Afterwards the treating rheumatologist discussed the outcomes with the patient. The primary endpoint, the change in ERIKO-Score between baseline and after one year of follow-up as a consequence of the structured assessment (active arm) was assessed using a mixed model in order to account for a random centre effect. Furthermore, comorbidity management in the active arm versus expert guided assessment following standard of care (SOC, control arm) was evaluated using Fisher's exact test and the Cochran-Armitage trend test.

Results: The analysis included 341 patients from 42 rheumatology centres with 210 patients in the active arm (mean disease duration 12.0 years (sd 8.8), mean DAS28 2.6 (sd 1.1)) and 131 patients in the control arm (mean disease duration 9.7 years (sd 7.4), mean DAS28 2.6 (sd 1.2)). After one year of follow-up the structured assessment led to a significant mean decrease in total ERIKO-Score by -0.45 (95% CI ranging from -0.67 to -0.23, p<0.001). This decrease was driven by an improvement in vaccination status, tooth status and depression risk. No difference in comorbidity management was detected between the structured assessment and SOC. At the end of follow-up, the mean ERIKO-Scores for both arms were 4.85 with 95% CIs ranging from 4.59 to 5.11 and 4.47 to 5.24 for the active arm and the control arm, respectively. A significant improvement in risk categorisation after one year of follow-up was observed for vaccination status and depression risk with better outcomes in the active arm as compared to the control arm.

Conclusions: A nurse-led comorbidity risk assessment in rheumatology practices resulted in a significant improvement after one year of follow-up. However, improvement was small and there was no benefit compared to expert-opinion based SOC. In clinical routine, applying the ERIKO-Score based on validated tools seems to be feasible. Nurse-led comorbidity assessment seems to be able to reduce existing deficits.

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OP0138

INVESTIGATION OF BIOPSYCHOSOCIAL ASSESSMENTS IN PATIENTS WITH RHEUMATIC DISEASE

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Background: The daily living activities, functions, depression and anxiety of patients with rheumatic diseases can be affected at various levels.¹ This condition explains the biopsychosocial dimension of chronic pain, it also requires the multi-dimensional assessment of the disease.²

Objectives: The aim of this study was to investigate biopsychosocial assessments of patients with rheumatic diseases.

Methods: Patients with rheumatic diseases were included in this prospective study. Demographic informations of patients were recorded. Health Assessment Questionnaire (HAQ) was used to assess daily living activities, the Hospital Anxiety and Depression Scale (HADS) was used to assess the anxiety and depression levels and Cognitive Exercise Therapy Approach Scale (the authors request that the abbreviation stay as 'BETY' as the original in Turkish) was used to assess biopsychosocial status of the patients.³ Data obtained from 352 patients were analysed by correlation analysis.

Results: 352 patients (82.4% women, 17.6% men, mean age: 46.01±11.6 years) were included in this study. Descriptives of the assessment results were given in table 1. There was a statistically significant correlation between the BETY and the

anxiety and depression subscales of HADS, respectively, strong and moderately strong, in the positive direction ($r=0.618$ $p<0.001$ and $r=0.572$ $p<0.001$). A statistically significant, strong correlation was found between the BETY and HAQ scores in the positive direction ($r=0.650$ $p<0.001$) (table 2). It was observed that patients showed depression characteristics according to HADS cut-off values (>7).

Abstract OP0138 – Table 1 Characteristics of patients

n=352	Min-Max	X±SD
Age (year)	19–75	46,01±11,6
Height (cm)	130–190	162,54±8,42
Weight (kg)	40–125	73,19±14,9
BMI (kg/m ²)	15,21–52,76	27,8±5,8
HADS-A	0–21	8,71±5,1
HADS-D	0–21	7,49±4,6
HADS-T	0–42	16,20±8,9
HAQ	0–53	12,21±10,4
BETY	2–120	62,65±26,3

X: Mean, SD: Standard Deviation BMI: Body Mass Index

Abstract OP0138 – Table 2 Correlations

n=352		HADS-anx	HADS-dep	HAQ
BETY	r	,618*	,572*	,650**
	p	,000	,000	,000

*: Pearson Correlation Test **: Spearman Correlation Test $p<0,05$

Conclusions: It was concluded that the cognitive functions of patients with rheumatic diseases were affected by anxiety-depression levels and daily living activities. Therefore, when the patient changes his/her cognition about his/her illness, it is thought that anxiety and depression levels may change positively. It was decided that the cognitive functions of the patients should be emphasised in the assessment of rheumatic patients.

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OP0139 CHARACTERISTICS OF DIFFICULT-TO-TREAT RHEUMATOID ARTHRITIS: RESULTS OF AN INTERNATIONAL SURVEY

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Background: The EULAR and ACR recommendations regarding rheumatoid arthritis (RA) mainly focus on early phases of the disease and on pharmacological management. Nevertheless, some patients remain symptomatic despite treatment according to the current recommendations, which makes them difficult-to-treat.¹ The estimated prevalence of difficult-to-treat RA is around 5%–20%. A difficult-to-treat RA classification needs to be defined to enable creation of recommendations on its comprehensive management.

Objectives: To compose a definition of difficult-to-treat RA and to explore items on its comprehensive management not covered by the current EULAR RA management recommendations.

Methods: An online survey was distributed among rheumatologists (in training). It consisted of 9 questions regarding the background of the respondents, aspects to be included in the definition of difficult-to-treat RA and missing items on its comprehensive management in the current EULAR management recommendations. Multiple-choice questions were used to assess the necessity of incorporating the following items into the definition: the disease activity level, e.g. the disease activity score assessing 28 joints (DAS28-ESR), presence of fatigue, number of disease-modifying anti-rheumatic drugs (DMARDs) that failed and the inability to reduce oral glucocorticoid (GC) treatment. Optional open questions were used to identify additional features for the definition of difficult-to-treat RA and to collect items on its comprehensive management not covered by the current EULAR recommendations.

Results: 390 rheumatologists (a few of them in training) from 31 countries completed the survey between July and December 2017 (figure 1a). 50% of the respondents would include signs suggestive of active disease or a DAS28-ESR score >3.2 in the definition (figure 1b) and 41% fatigue. The most selected option for the number and category of DMARDs that had to have been used to be included in the definition was 1) Failure to ≥ 2 conventional synthetic DMARDs and (Boolean) 2) ≥ 2 biological or targeted synthetic DMARDs with different mechanisms of action (figure 1c). 89% suggested including inability to taper oral GCs below 5 or 10 mg. Over 400 responses to open questions were submitted, of which a selection is listed in table 1.

Abstract OP0139 – Table 1 Most frequent answers to the open questions

Please define any additional features and suggested criteria for difficult-to-treat RA	Please mention any clinically relevant situations which are not covered by the current EULAR RA recommendations
Time span with active disease despite treatment	Treatment adherence
Rapidly progressive erosions despite treatment	Persistent chronic pain without objective inflammatory signs
Adverse events to multiple agents	Coping problems
Comorbidities, e.g. fibromyalgia	Extra-articular manifestations

Abstract OP0139 – Figure 1 a) origin and number of respondents, b) what should be the definition for not well-controlled disease in the definition of difficult-to-treat RA? c) which and how many anti-rheumatic drugs should at least be tried with insufficient effect (failed) for the definition of difficult-to-treat RA?

Conclusions: This survey shows that difficult-to-treat RA is seen as a heterogeneous condition; next to signs of active disease, failure to DMARDs and inability to taper GCs may be included in the definition. The large number of respondents and of responses with regard to items not covered by the current EULAR RA management recommendations underscore the need for recommendations on comprehensive management of difficult-to-treat RA.

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