Table 1. Comparison between patients in remission with those having moderate/high disease activity

Variables	OR (95% CI)	P - Value
Ginger	0.62 (0.47, 0.81)	<0.001
Garlic	0.61 (0.46, 0.79)	<0.001
Turmeric	0.63 (0.46, 0.87)	0.01
Jeera	0.75 (0.51, 1.09)	0.13
Coriander	0.59 (0.41, 0.83)	0.01
Pepper	0.82 (0.55, 1.21)	0.3
Chilli	0.69 (0.53, 0.90)	0.01

. Multivariate logistic regression for the statistically significant variables

Conclusion: Higher consumption of Indian spices like ginger, garlic, turmeric and coriander were found to be associated with better control of disease activity and hence the inflammation, as evidenced by DAS28CRP in patients with Rheumatoid arthritis, receiving standard triple therapy

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THU0658

WHO IS AT RISK FOR PERSISTENT FATIGUE IN THE FIRST YEAR OF RA? CHARACTERISTICS OF PATIENTS WITH PERSISTENT FATIGUE IN THE FIRST YEAR BY SEX IN THE CANADIAN EARLY ARTHRITIS COHORT (CATCH)

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Background: While treat-to-target strategies can dramatically reduce RA inflammation, persistent fatigue is present in up to half of RA patients, and is an important unmet need. Proposed underlying causes include RA disease, cognitive/emotional/behavioral (CEB), and personal (health) factors.

Objectives: To identify risk factors for persistent fatigue at 12-months in men and women with ERA on immunomodulatory therapies.

Methods: Data were from patients enrolled in the Canadian Early Arthritis Cohort (CATCH) between 01-2007 and 03-2017 who met 1987 or 2010 ACR/EULAR RA criteria, had active disease treated with DMARDs, and had complete data on DAS28, BMI, and fatigue severity (0-10) over 12-months. Persistent fatigue, was defined as fatigue >4 at baseline with <20% improvement at 12 months. Multivariable logistic regression was used to identify RA disease, CEB, and personal/health factors associated with persistent fatigue.

Results: Patients were mostly white (81%), female (71%), with a mean (SD) age of 54 (15), symptom duration of 6 (3) months, and BMI of 28.0 (6.1); 32% were obese (BMI≥30). Women were generally younger, better educated, seropositive, and had greater disability, fatigue, depressive symptoms, and major stress in the past year (p<.05). 21% of women and 19% of men reported persistent fatigue.

Mean (SD) or N (%)	Women N=579	Men N=208	P value
Age	52 (15)	59 (13)	<0.0001
> High School education	405 (57%)	134 (47%)	<0.01
RA Disease			
Symptom duration (mnth)	5.7 (3.0)	5.6 (2.9)	0.65
RF+ or ACPA +	526 (84%)	177 (75%)	<0.01
DAS28 (MDA/HDA v. LDA/REM)	688 (96%)	272 (94%)	0.17
Pain (0-10)	5.8 (2.8)	5.7 (2.8)	0.55
HAQ-DI	1.1 (0.7)	1.0 (0.7)	0.02
Cognitive/Emotional/Behavioral (CEB)			
Baseline fatigue (0-10)	5.6 (3.0)	4.9 (2.9)	<0.01
Obese (BMI≥30)	223 (31%)	93 (32%)	0.74
Current Smoking	110 (15%)	54 (19%)	0.19
Depressive Symptoms (SF12 MCS <45.6)	356 (53%)	92 (35%)	<0.0001
Major stress past year	401 (56%)	123 (43%)	0.0001
Personal/Health			
Work (full/part time)	401 (56%)	149 (52%)	0.20
Rheumatoid Disease Comorbidity Index	1.1 (1.3)	1.3 (1.3)	0.06
OA or backpain	164 (23%)	57 (20%)	0.27
Fibromyalgia	20 (3%)	3 (1%)	0.09
Poor sleep	5.2 (3.2)	5.0 (3.3)	0.41

In multivariable regression that included all Table 1 variables, predictors of persistent fatigue in women were obesity (OR 1.7; 95% CI 1.1, 2.6), initial steroid use (OR 1.7; 95% CI 1.1, 2.7), seronegativity (OR 0.6; 95% CI 0.4, 1.0) and poor sleep (OR 1.1; 95% CI 1.0, 1.2). Obesity was the only significant predictor in men and was associated with a 2.4 times higher odds (95% CI 1.1, 5.1) of persistent fatigue at 1 yr. Other sociodemographic, RA characteristic, CEB and personal/health factors were not associated with persistent fatigue in either sex in multivariable models.

Conclusion: Obesity is common in ERA and a major determinant of persistent fatigue in women and men. In obese RA patients on guideline-based treatment, lifestyle interventions targeting weight loss may play an important role in reducing persistent fatigue that does not improve with RA treatment.

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THU0659 CATASTROPHIZING IN RHEUMATOLOGY

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Background: Rheumatic disorders (RD) provide chronic pain. Catastrophizing is a negative cognitive and affective response resulting in inadequate expression of pain. Catastrophizing in RD patients is suspected to be involved in persistence and amplification of chronic pain.

Objectives: To assess catastrophizing level in RD and to evaluate the association between catastrophizing and physical pain intensity, disease activity, disability, depression and quality of life.

Methods: We performed a systematic review of literature and search in the following databases: MEDLINE, COCHRANE and EMBASE until April 2018. All observational, cross-sectional and randomized control studies investigating catastrophizing in patients with RD (rheumatoid arthritis (RA), low back pain (LBP), osteoarthritis) were included. Statistical analysis defined pooled mean catastrophizing level by using the Pain Catastrophizing Scale (PCS), the latter ranging from 0 to 52. To assess the association between catastrophizing and disease activity (DAS28), pain (Numerical Rating Scale NRS), disability (ODI) and quality of life (SF36, WOMAC) we collected correlation coefficients and pooled them in meta-analysis using the Fisher's z transformation with MedCalc v18.11.3.

Results: From 1494 articles concerning catastrophizing and RD, 51 were selected for a meta-analysis :

- 601 RA patients (mean age 57.4 years, 67.7% female, mean pooled DAS 28 = 3.4 and mean pooled NRS = 3.8) included in 7 studies. The mean pooled catastrophizing level at baseline was 14.7 (SD = 11.4) in RA patients vs 2.7 (SD = 3.0) in control group patients (n= 82 in 2 studies). In one study, a RA sample identified 22% of high catastrophizers (defined by PCS > or = 30).

- 2521 LBP patients (mean age 43.6 years, 57% female, mean pooled NRS = 4.5 and mean pooled ODI = 30.3) included in 27 studies. The mean pooled catastrophizing level at baseline was 19.9 (SD = 11.3).

- 3388 osteoarthritis patients (knee and hip, mean age 67.7 years, 65% female, mean pooled NRS = 5.0) included in 17 studies. The mean pooled catastrophizing level at baseline was 11.2 (SD = 10).

In RA, a significant positive correlation between catastrophizing and DAS 28 was observed: **pooled $r=0.278$ $p<0.001$ (3 studies) (Figure 1)**. Pain level was strongly associated with catastrophizing ($r=0.71$ ($p<0.01$)). Higher PCS scores were significantly associated with higher levels of distress i. e. lower SF-36 Mental Health score ($r= -0.52$ ($p<0.01$)) and significantly associated with reduced physical function ($r=-0.35$ ($p<0.01$)) for SF36 Physical Function).

In LBP, higher PCS scores were significantly associated with higher levels of pain and disability : **pooled $r=0.486$ $p<0.001$ (NRS) and $r=0.465$ $p<0.001$ (ODI)**, respectively. The association between catastrophizing and depression was significant ($r=0.538$ $p<0.01$).

Catastrophizing in osteoarthritis was strongly associated with an increase in functional limitations and pain (i.e. higher WOMAC total score, correlation coefficient: **$r= 0.641$ $p<0.001$**).

Conclusion: Catastrophizing is a common psychological trait clearly associated with disease activity, pain, mental health and physical function. Nevertheless catastrophizing is rarely measured. It might be relevant to detect it earlier in order to adapt pharmacologic and non-pharmacologic treatment in at-risk patients.

Figure 1. Forest plot for correlation coefficient between catastrophizing (PCS) and disease activity (DAS 28) in rheumatoid arthritis

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THU0660 CHARACTERIZATION OF SCLERODERMA PATIENTS ACCORDING TO RO52 AND KU ANTIBODIES

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Background: Systemic Sclerosis (SSc) is an autoimmune disease that is characterized by progressive and severe fibrosis with cutaneous and visceral involvement, fibroproliferative vasculopathy and alterations of cellular and humoral immunity, very heterogeneous from the clinical and immunological point of view. There are many types of antibodies related to the disease that are used in the diagnosis and characterization. Antibodies anti-Ku and anti-Ro52 have been found, although they are not specific to the disease, that could play an important role in the prognosis and clinical expression.

Objectives: To evaluate the clinical pattern and prognosis of SSc patients who carry antibodies Anti-Ku and Anti-Ro52.

Methods: A retrospective, multicentric study of SSc patients included in the Spanish Registry of Scleroderma (RESCLE). Clinical, demographic, prevalence, serological, and survival data were analyzed

Results: A total of 401 samples were analyzed for anti-Ku with 12 positive results (3%). For anti-Ro52, 1724 samples were analyzed with 246 positive results (14%). It is observed, from the multivariate analysis, that patients with anti-Ro52 presented, in higher frequency, an association with Sicca syndrome ($p<0.001$) and its coexistence with the antibody anti-La (OR 44.8 with 95% CI and $p<0.001$). Regarding patients with anti-Ku, no clinical association was found with statistical significance.

Conclusion: As opposed to finding SSc specific antibodies such as anti-centromere (ACA), anti-topoisomerase I (ATA), and anti-RNA polymerase III (ARA), the presence of anti-Ku or anti-Ro52 is not conclusive of any distinctive clinical profile.

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