Methods: We treated 37 RA patients with either etanercept (ETN) or certolizumab pegol (CZP) in a 12 month follow-up study. Assessments were performed at baseline, and 3, 6 and 12 months after treatment initiation. Serum chemerin and adiponectin concentrations were measured by commercially available ELISA kits (R and D System, MN and USA). PON1 and arylesterase activities were measured by spectrophotometry. In addition, age, disease duration, disease activity (DAS28), CRP, anti-CCP, IgM rheumatoid factor and plasma lipid levels were also assessed. Arterial flow-mediated vasodilation (FMD), carotid intima-media thickness (cIMT) and arterial pulse-wave velocity (PWV) were assessed by ultrasound.

Results: Anti-TNF treatment resulted in a significant decrease in the levels of chemerin ($p<0.001$) and adiponectin ($p<0.007$) after 12 months. There were no significant changes in the levels of other metabolic biomarkers. We found the following correlations between the baseline values: the PON1 levels correlated with the age of patients ($R=0.466$, $p=0.004$). The adiponectin correlated with the disease activity ($R=0.385$, $p=0.030$), HDL-C ($R=0.417$, $p=0.012$) and the triglyceride levels ($R=0.481$, $p=0.003$). The total cholesterol correlated with the PWV ($R=0.449$, $p=0.021$) and the levels of the LDL-C ($R=0.911$, $p<0.001$). The baseline triglyceride correlated with the IgM rheumatoid factor ($R=0.343$, $p=0.021$); and the levels of LDL-C correlated with the PWV values ($R=0.444$, $p=0.023$).

Conclusions: Metabolic factors, such as certain adipokines, PON1 and arylesterase may play a role in oxidative stress and atherosclerosis associated with RA. Anti-TNF treatment may affect adipokine levels.

Disclosure of Interest: None declared

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AB0384 RHEUMATIC ARTHRITIS PATIENTS WITH VERY HIGH CARDIOVASCULAR RISK: POOR RESULTS IN CHANGES IN LIFESTYLE DURING FOLLOW-UP

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Background: Rheumatoid arthritis (RA) is associated with accelerated atherosclerosis, which results in high cardiovascular morbidity and mortality. The European Atherosclerosis Society recommends a strict control of cardiovascular (CV) risk factors, focusing in a healthy lifestyle, for the prevention of future CV events.

Objectives: Our aim was to assess the characteristics of healthy lifestyle in patients with RA and very high risk of CV events.

Methods: Prospective study that included a group of 113 patients, of whom 65 presented carotid plaques on carotid ultrasound study and, due to this, were categorised as having very CV high risk at the baseline visit. At this time, patients were informed about the risks associated to their disease and the high risk of having CV events. They were even warned of the need of healthy lifestyle habits. Data on lifestyle, smoking, obesity and diabetes mellitus were collected at baseline and last visit (with an interval of more than 5 years)

Abstract AB0384 – Table 1. Clinic characteristics of 65 patients with RA and very high CV risk.

CLINIC CHARACTERISTICS	LAST VISIT (n = 65)
Age (years): Mean (SD)	67 (8.7)
Sex: Women (%)	44 (68%)
Duration of RA (years): Mean (SD)	17 (7.7)
Baseline Visit- Final Visit (years): Mean (SD)	5.5 (0.95)
Dyslipidemia: Yes (%)	47 (72%)
High blood pressure: Yes (%)	40 (62%)
Diabetes Mellitus: Yes (%)	12 (18%)
Smoking: Yes (%)	17 (26%)
Obesity: Yes (%)	26 (40%)
Total Cholesterol (mg/dl): Mean (SD)	186 (42.4)
Waist circumference: Yes (%) ($\sigma > 102$ cm, $\varphi > 88$ cm)	42 (65%)
LDL- Cholesterol (mg/dl): Mean (SD)	104 (34.6)
Atherogenic index: Mean (SD)	3.37 (0.88)
Systolic blood pressure (mmHg): Mean (SD)	136 (14.2)
Diastolic blood pressure (mmHg): Mean (SD)	80 (8.2)

Results: The results of the 65 patients at the last visit are shown in table 1. The average age was of 67 years, with a disease duration of 17 years and high prevalence of dyslipidemia (72%), HTA (62%) and obesity (40%). Data obtained at the basal and last visit (with an average difference of 5.5 years) were compared in table 2. At last follow-up none of the smokers at baseline had discontinued smoking. There were no significant differences in the body mass index (BMI) average. Nevertheless, there was increase in the number of patients

with a BMI <30 (36% vs 31%). Only a few patients claimed to go on any type of diet (20%), although the majority (88%) had classic CV risk factors (DM, HTA, obesity or dyslipidemia) at baseline that required adequate diet regime. Yet, more than half of the patients (62%) made regular exercise (>3 times/week) and did not have a sedentary lifestyle (50%), despite having a mean age of 67 years and long disease duration at baseline. Poor control of diabetes mellitus (DM), was found in more than half of the patients.

Abstract AB0384 – Table 2. Variables assessed at baseline visit and last visit of 65 patients with RA and very high CV risk.

Variables	BASALINE VISIT (n = 65)	LAST VISIT (n = 65)
Smoking: Yes (%)	17 (26%)	17 (26%)
Discontinued smoking: Yes (%)	-	0
Obesity: Yes (%)	24 (37)	26 (40%)
BMI: Mean (SD)	28.2 (5)	28.6 (5.5)
BMI > 30 : Yes (%)	22 (36%)	19 (31%)
Diet: Yes (%)	-	12 (20%)
Exercise: Yes (%)	-	38 (62%)
Sedentarism: Yes (%)	-	30 (50%)
Diabetes Mellitus (DM): Yes (%)	6 (9%)	12 (18%)
DM. Treatment: Yes (%)	4 (67%)	6 (50%)
DM. Higher Glycosylated Hemoglobin: Yes (%)	-	7 (58%)

Conclusions: Despite having been informed on the high risk of CV events, patients with RA included in the category of very high CV risk performed poor long-term control of factors that include a healthy lifestyle.

Disclosure of Interest: None declared

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AB0385 COMPARATIVE ASSESSMENT OF BMD IN PRE-, POSTMENOPAUSAL WOMEN AND MAN WITH RHEUMATOID ARTHRITIS (RA)

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Background: RA doubles the risk of hip and vertebral fractures, regardless of the use of GCs, and disease activity is consistently associated with low BMD. But now, it is not clearly identified predictors of the individual risk of bone loss depends on sex and menopausal status patients with RA

Objectives: To compare BMD in man, pre- and postmenopausal women with RA

Methods: The study was performed on 145 patients: 117 women (mean age 45.4 $\pm$ 13.0 years, mean disease duration 9.7 $\pm$ 7.7 years, 41% (n=48) postmenopausal) and 28 man (mean age 46.4 $\pm$ 16.9 years, mean disease duration 4.2 $\pm$ 4.1 years) with RA. 91.6% have moderate/high disease activities by DAS 28. 68.4% women and 64.3% men received prednisolone ≤ 10 mg/day more than 3 month, 87% of patients received MTX. BMD was measured in 3 part of the skeleton: hip, lumbar spine, distal part of forearm. Female patients were divided in two groups by menopause: premenopausal (PreM) in mean age 36.9 $\pm$ 9.3 years and postmenopausal (PM) in the mean age 57.6 $\pm$ 5.9 years.

Results: BMD was decreased in 44.5% of women and 42.9% of man. BMD of hip, lumbar spine, distal part of forearm were respectively decreased in 26.1%, 26.1%, 18.8% PreM women and 66.7%, 70.8%, 79.2% PM women. 39.3% of man had decrease BMD in the hip and 42.8% – in the lumbar spine. In women the age was strong associated with BMD decrease, in man no association with age was found. In PreM women was not found association between BMD, disease duration, DAS28 and X-ray changes in hands and feet, only cortical index was correlated with BMD in all part of the skeleton. In PM women the disease duration was negatively correlated with BMD in total hip and forearm, in men – with BMD in lumbar spine and hip neck ($p<0.01$). It was found association between BMD and X-ray stage by Steinbrocker in PM women and man. DAS28 was strong associated with low hip and forearm BMD in PM women and low spine BMD in men. According to dispersion analysis PM women with III-IV X-ray stages has significantly lower BMD in the hip (total: $Z=2.16$, $p=0.04$; neck: $Z=2.61$, $p=0.01$) and medium part of forearm ($Z=2.92$, $p=0.001$). Man had significantly lower BMD in all part of the skeleton since II X-ray stage ($p<0.001$) and negative correlation between BMD and presence of erosion.

Conclusions: A sexual differences in BMD loss was observed in different parts of the skeleton. In man the most affected part of the skeleton was spine and BMD changes were more likely to PreM women, had high association with disease activity by DAS28 and presence of erosion, and no association with age. In PreM women only cortical index had high predictive value for decrease BMD in all parts of the skeleton. Age, disease deration, duration of menopause, DAS28 and x-ray changes in hand and feet was strong associated with decreased BMD in the hip and forearm in PM women.

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AB0386

RELATIONSHIP BETWEEN EXTRA-ARTICULAR MANIFESTATIONS AND JOINT SURGERY IN RHEUMATOID ARTHRITIS

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Background: Extra-articular organ involvement is a serious condition in rheumatoid arthritis (RA) associated with increased mortality. These manifestations may affect the course of the disease, but could they accelerate the joint destruction and shorten the pre- joint surgical period?

Objectives: Our objective was to study the impact of extra-articular manifestations (EAM) on joint surgery during RA management.

Methods: It is a retrospective comparative study involving 500 RA patients (according to 1987 ACR or 2010 ACR/EULAR criteria) in rheumatology department between 2000 and 2014. The assessment of EAM was systematically done in RA diagnosis and during management. We compared 2 groups of RA patients according to the presence or not of EAM.

Results: We enrolled 422 women and 78 men with mean age of 53.3 years (21–83) and mean disease duration of 12 years [2–40]. RA was Rheumatoid Factor positive and erosive in 71.4% and 90% cases respectively. A surgical procedure was considered necessary in 59 cases (11.8%). An EAM was diagnosed in more than a half of patients (62.4%) with a predominance of ocular and bone manifestation, mainly xerophthalmia (173 cases, 34.6%) and osteoporosis (120 cases, 24%). Secondary Sjögren's syndrome was confirmed in 70 cases. Pulmonary manifestations related to RA were noted in 70 patients (14%), especially diffuse interstitial pulmonary in 48 cases (9.6%). Renal involvement was present in 45 patients, of which interstitial renal disease was the most common manifestation (29 patients, 64.4%). Rheumatoid nodules (4.6%) and small vessel vasculitis (0.6%) were the most frequent skin manifestations. A significantly higher incidence of joint surgery was noted in osteoporotic RA patients (OR=1.91; p=0.029). There was no significant correlation between joint surgery resort and other EAM (table 1).

Abstract AB0386 – Table 1. Correlation between EAM and joint surgery during RA

EAM (N)	Joint surgery (+)	Joint surgery (-)	p
Xerophthalmia	22	151	0875
Secondary Sjögren's syndrome	9	61	0633
Osteoporosis	31	89	0029
Pulmonary manifestation	3	67	0601
Renal manifestation	3	42	0257
Skin manifestation	1	25	0502

Conclusions: Our study concluded to a higher incidence of EAM during RA management. Osteoporosis was the only EAM associated to greater frequency of joint surgery.

Disclosure of Interest: None declared

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AB0387

IS RHEUMATOID ARTHRITIS A RISK FACTOR FOR DEMENTIA ?

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Background: A direct link between chronic inflammation and dementia was well established by different epidemiological studies. Nevertheless, data on impaired cognitive function during rheumatoid arthritis (RA) are still controversial and doubtful.

Objectives: To assess the association of RA and impaired cognitive function.

Methods: This is a case-control study involving patients with RA according to ACR/EULAR criteria 2010 and randomly-chosen controls by matching on age and gender during 4 months. The Mini Mental State Examination (MMSE) was used to evaluate cognitive functions. Cognitive impairment was defined by a MMSE score

lower than 24 (or 26 in patients with primary education). The activity of RA was evaluated using Disease activity score (DAS28).

Results: A total of 20 RA patients (12 women and 8 men) with a mean age of 52.6 years [31–72] and 20 healthy controls (15 women and 5 men) with a mean age of 55.8 years [50–77] were included. No significant differences for age or gender between RA patients and controls were observed. Rheumatoid factor was positive in 95% of cases. Mean disease duration was 3.2 years [2–6]. Thirteen RA patients had active disease with mean DAS28 of 4.73. Three-quarters of RA patients had been treated with methotrexate and only 8 patients received biotherapy: 5 anti TNF alpha and 3 Rituximab. Forty percent of RA group were illiterate versus 49% in control group. Eleven RA patients (55%) had a normal cognitive function versus 15 (75%) in control group. A moderate cognitive impairment (mean MMSE of 18.62) was found in 8 RA patients (40%) and 2 controls (10%) primarily affecting constructional apraxia. No severe cognitive impairment was found in the 2 groups. Significant positive association was found between cognitive impairment and RA (p=0.001). Patients with RA using methotrexate had higher risk for cognitive impairment comparing to patients using biotherapy (p=0.02).

Conclusions: Our study highlighted a serious psychological expression of RA which was early onset of cognitive impairment and dementia. This is a possible effect of inflammation and vascular disease caused by RA.

Disclosure of Interest: None declared

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AB0388

SLEEP DISTURBANCES IN INFLAMMATORY RHEUMATIC DISEASES

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Background: Inflammatory rheumatic joint diseases such as Ankylosing Spondylitis (AS) and Rheumatoid Arthritis (RA) have recently been found to be associated with sleep disturbances especially obstructive sleep apnoea.^{1,2}

Objectives: The aim of our study was to evaluate the occurrence of sleep disturbances, especially REM Sleep Behaviour Disorder (RBD), in inflammatory rheumatic diseases, (rheumatoid arthritis -RA and Spondyloarthritis -SpA).

Methods: We enrolled 103 consecutive patients affected by inflammatory rheumatic diseases [RA (64, 62.1%) or SpA (39, 37.9%)]. Patients underwent a neurologic and psychopathological assessment, including identification of sleep disorders by means of the Pittsburgh Sleep Quality Index (PSQI), the Berlin and the REM sleep behaviour disorder (RBD) questionnaires, a structured interview on sleep terrors and sleep paralysis, Beck Depression Inventory (BDI-II) and the Spielberger State-Trait Anxiety Inventory (STAI). Statistical analysis was performed utilising SPSS software.

Results: No significant differences were found between RA and SpA patients in age at diagnosis, disease duration, smoke habit, alcohol consumption, anamnestic comorbidities (especially metabolic diseases, anxiety or depression), disease activity/remission and biologic Disease Modifying Antirheumatic Drugs use. No differences demonstrated in BDI-II, STAI, PSQI and RBD questionnaires; only the Berlin Questionnaire showed significant differences (17.2% in RA vs 35.9% in SpA, p=0.036). No differences in sleep paralysis (10.9% in RA vs 7.7% in SpA, p=0.74) and sleep terrors (37.5% in RA vs 20.5% in SpA, p=0.0826) which were found to be increased if compared with general population (2.6%).

Conclusions: Our data show an increased prevalence of sleep terrors in rheumatic patients when compared to the general population although no differences were highlighted between RA and SpA; also increased risk of sleep apnoea (Berlin Questionnaire) has been demonstrated in patients with SpA compared with RA.

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