Table 2

	RA group (n=44)	Control group (n=26)	*p*
LVCR, n (%)	14 (32.6)	2 (8)	**0.021**
LVCR or LVH, n (%)	15 (34.1)	3 (11.5)	**0.037**
Diastolic dysfunction, n (%)	20 (45.5)	9 (34.6)	0.374
Left ventricular mass index (g/m²), mean ± SD	66.77 ± 17.11	68.65 ± 18.31	0.668
EF (%), mean ± SD	60.85 ± 4.94	62.62 ± 6.67	0.228
GLS (%), mean ± SD	-20.66 ± 2.63	-21.6 ± 2.52	0.189
TAPSE (mm), mean ± SD	23.23 ± 4.34	23.84 ± 2.71	0.485

LVCR - Left ventricular concentric remodeling, LVH - Left ventricular hypertrophy, GLS - Global longitudinal strain, TAPSE - Tricuspid annular plane systolic excursion.

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FRI0142 NEUTROPENIA IN RHEUMATOID ARTHRITIS. INCIDENCE, PROGNOSTIC FACTORS, NATURAL HISTORY AND OUTCOME

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Background: Neutropenia is an uncommon finding in the context of rheumatoid arthritis (RA). The incidence and association with RA features is not yet well-defined.
Objectives: To determine the incidence and severity of neutropenia in an early RA inception cohort, explore possible association with RA features and describe its impact on patient's management.
Methods: The Scottish Early Rheumatoid Arthritis (SERA) inception cohort prospectively recruited newly diagnosed RA patients (ACR-EULAR 2010 criteria), who were followed-up every 6 months. Patients who developed at least one episode of neutropenia (grade 1: <2000/μL, grade 2: <1500/μL, grade 3: <1000/μL, grade 4: <500/μL) were compared with patients who never developed neutropenia. Binominal logistic regression was performed, exploiting the enter model and using the occurrence of neutropenia as dependent variable.
Results: 77 episodes of neutropenia were observed in 60 (8.6%) out of 698 RA patients, who were followed up for a median (range) time of 18 (6–48) months. Neutropenia occured in 12 (0–120) [median (range)] months after RA diagnosis. The majority had mild neutropenia (grade 1: n=49, grade 2: n=9, grade 3: n=0, grade 4: n=2) and the mean ± SD number of neutrophils/μL was 1.68±0.35. Of the 77 neutropenic episodes recorded, coexistent lymphopenia was found in 13.0%, leukopenia in 70.1%, thrombocytopenia in 1.3% and anaemia in 32.5%. At the time of the neutropenia, most of the patients were in remission (DAS28<2.6: 53%, DAS28<3.2: 15.5%, DAS28≤5.1: 22.4%, DAS28>5.1: 8.6%). Neutropenia was a single episode in the majority (76.7%) of the patients and led to treatment discontinuation in 11.7% of them.
Patients who subsequently developed neutropenia, were more likely females (p=0.03) and non-smokers (p=0.0009) (Table 1). Treatment received for RA was comparable between the two groups. Binominal regression analysis confirmed female gender [p=0.017, Exp(B): 2.587] and not smoking [p=0.032, Exp(B): 2.880] as predictors of neutropenia development.
During total follow-up time, patients who had at least one episode of neutropenia they also manifested more commonly anaemia (p=0.04) and lymphopenia (p=0.03). The rate of infections/1000 person-months did not differ between patients who developed neutropenia and those who did not [5.75 (2.47–11.33) vs 4.1 (3.13–5.47), p=0.399].

Table 1. Baseline patients characteristics

	Neutropenia	No Neutropenia	p value
Patients characteristics	N=60	N=638	
Age, mean (mean±SD)	58.7±14.5	58.7±13.2	0.978
Female gender, No (%)	50 (83.3%)	414 (64.9%)	0.03
Total follow-up (months), median (range)	18 (6–48)	18 (6–48)	0.173
Smoking, No (%)	5 (8.3)	172 (27.0)	0.0009
Smoking (present/past/never)	5/23/32	172/240/225	0.002
Anaemia[a], No (%)	8/57 (14.0)	133/631 (21.1)	0.235
Thrombocytopenia[b], No (%)	0/57 (0.0)	0/631 (0.0)	1.000
Leukopenia[c], No (%)	1/57 (1.7)	3/631 (0.4)	0.293
Lymphopenia[d], No (%)	4 (7.0)	34/631 (5.4)	0.545
RF positive, No (%)	28/36 (77.8)	295/401 (73.5)	0.693
Anti-CCP positive, No (%)	34/48 (70.8)	410/527 (77.8)	0.282
Baseline DAS28 (mean±SD)	4.8±1.6	5.02±1.42	0.408

[a]Hb<120 g/L, [b]platelets <100000/μl, [c]white blood cells: $<4x10^9$/L, [d]lymphocytes: $<1x10^9$/L.

Conclusions: Neutropenia was observed in about 9% of patients in this early RA cohort. It was usually mild, transient and not associated with increased infection rates. Interestingly, not-smoking and female gender were associated with neutropenia.
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FRI0143 PREVALENCE AND DETERMINANTS OF PERIPHERAL ENDOTHELIAL DYSFUNCTION IN A COHORT OF RHEUMATOID ARTHRITIS PATIENTS: PRELIMINARY RESULTS FROM A MULTICENTER CROSS-SECTIONAL STUDY

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Background: RA patients suffer of a life expectancy significantly reduced with respect to the general population mainly due to cardiovascular (CV) disease. Endothelial dysfunction (ED), the early step in atherosclerotic process, is more evident in RA than in the general population. Peripheral arterial tonometry (PAT), a simple, rapid, and objective tool for evaluation of ED, measures small digital artery reactive hyperaemia after an ischemic stimulus in forearm. PAT shows high grade of correlation with coronary ED and predicts future CV events in the general population.
Objectives: To define prevalence and determinants of peripheral ED in RA.
Methods: Data from 633 RA patients free of previous CV events prospectively enrolled in the EDRA study* (ClinicalTrials.gov: NCT02341066) were analysed. Reactive hyperemia index (LnRHI) was evaluated by PAT using the EndoPAT2000 device: ED was defined by LnRHI <0.51. Linear and logistic regression analysis were performed to define independent predictors of ED in RA patients. A p-value <0.05 was considered statistically significant.
Results: Peripheral ED was documented in 212 out of 633 RA patients (33.3%). A linear regression for multiple variables (stepwise method) performed including into the models variables showing significant association with LnRHI at the univariate regression analysis (systolic blood pressure, HDL cholesterol levels, triglycerides levels, smoking habit and ACPA positivity; Age and gender were forced) showed that only higher levels of triglycerides [B coefficient (95%IC) = -0,001 (-0,001–0,00); $p<0.05$] negativity for ACPA [B coefficient (95%IC) = -0,070 (-0,135–0,005); $p<0.05$] and smoking habit [B coefficient (95%IC) =0,01 (0,043–0,156); $p<0.05$] were independently related to lower values of LnRHI. No significant correlation between peripheral ED and RA activity (DAS-28, CDAI, SDAI, HAQ), burden of systemic inflammation (CRP, ESR) and type of immunosuppressive treatment (steroids, NSAIDs, DMARDs and bDMARDs) was found. At logistic regression analysis ACPA negativity [OR ((95%IC) = 1.57 (1.04–2.21); $p<0.05$] and smoking habit [OR ((95%IC) = 1.64 (1.06–2.53); $p<0.05$] indipendently conferred a major risk of peripheral ED.
Conclusions: This study demonstrates for the first time a very high prevalence of peripheral ED in patient with RA free of previous CV events. Triglycerides levels and smoking habit, among traditional cardiovascular risk factor, showed a significant correlation with lower peripheral ED. Surprisingly ACPA negativity confers an increased risk for ED in RA population. Moreover, other than expected, systemic inflammation does not appear to influence peripheral ED in RA population. In conclusion our data further support the notion that atherogenesis in RA is only partially driven by traditional CV factors. The negative association between ACPA and ED warrants further investigation.
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FRI0144 EVALUATION OF FACTORS AFFECTING FATIGUE IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: Fatigue is a common and disturbing symptom in patients with Rheumatoid arthritis (RA) (1,2). Measuring fatigue, understanding its contributory factors, and treating it lead to better patient outcome (3).
Objectives: The aim of this study is to investigate the relation between fatigue and pain, functional status, disease activity in patients with RA and to determine the effect of fatigue on the quality of life of patients with RA.