Conclusions: Hypertensive females with rheumatoid arthritis are characterised by higher frequency of insulin resistance, endothelial dysfunction, adiponectin level changes which associates with subclinical atherosclerosis manifestations.

Disclosure of Interest: None declared

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FRI0080 THE ROLE OF PAIN IN RHEUMATOID ARTHRITIS (RA) PATIENTS' ASSESSMENTS OF THEIR HEALTH

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Background: Patients often describe pain as the most important symptom of RA. Despite advances in RA therapy to improve disease control, some patients continue to have significant pain^{1,2}. The relative impact of pain on RA patients' evaluations of overall health and RA-specific global assessments is unknown.

Objectives: Determine the relative role of pain in RA patients' health assessments.

Methods: Data derived from the Forward (The National Databank for Rheumatic Diseases) longitudinal cohort, collected January-May 2017. Respondents (n=5471) have rheumatologist-confirmed RA. Two health assessments were examined: ¹ overall satisfaction with health (SAT) measured by the item: "How satisfied are you with your health now?" with responses of very unsatisfied to very satisfied; and ² patient global assessments of RA impact (GBL) measured using a numeric rating scale (NRS): "Considering all the ways that your RA affects you, rate how you are doing on a scale of 0–10, where 0=very well and 10=very poor." For regression analyses, SAT was dichotomized as "very satisfied" or "somewhat satisfied" vs. other responses. Current pain severity was rated on an NRS from 0 (no pain) to 10 (extreme pain). Spearman correlations examined the association of pain with SAT and GBL. Initial multiple regression analyses (table 1, Model 1) examined the following as predictors of SAT and GBL: age, sex, education, disease duration, obesity (BMI ≥30), conventional and biologic DMARD use, Rheumatic Disease Comorbidity Index³ (RDCI), self-report of depression, fatigue, and functional limitations (Health Assessment Questionnaire [HAQ] score). Follow-up models (Model 2) added pain to determine its relative independent role in health assessments.

Results: The sample was 84% female, mean age 65 years, mean RA duration 22 years. 53% were satisfied with their health, and mean GBL was 3.6±2.5. Mean pain severity rating was 3.8±2.8. Correlations of pain with SAT and GBL were 0.58 and 0.71, respectively (each p<0.0001). Regression models predicting both SAT and GBL improved with the addition of pain (table 1). Pain was significantly and independently associated with both health assessments.

	Model 1 (excluding pain)	Model 2 (adding pain)
Satisfied with health		
Pain		0.81 (0.79, 0.84)*
Model R ²	0.37	0.40
Global assessment of RA		
Pain		0.33 (<0.0001)†
Model R ²	0.51	0.57

*Odds ratio (95% CI)

† b (p-value)

Regression models included age, sex*, education, disease duration, obesity, medications, RDCI, depression, fatigue*, and HAQ*. Variables noted with asterisk were also statistically significant (p<0.05) in both final models.

Conclusions: Pain plays a critical role in RA patients' assessments of general and RA-specific health. Analyses suggest that pain may be more important to RA global assessments than to overall health satisfaction, though the clinical relevance of this difference is not known. RA global assessments are included in some indices of disease activity. Future research should focus on distinguishing between non-inflammatory and inflammatory causes, which may lead to more accurate assessment of RA disease activity.

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FRI0081

THE IMPORTANCE OF TRANSFERRIN SATURATION, SERUM FERRITIN, LOG FERRITIN AND TRANSFERRIN/LOG FERRITIN IN DIFFERENTIATING IRON DEFICIENCY ANAEMIA FROM ANAEMIA OF CHRONIC DISEASE IN RHEUMATOID ARTHRITIS PATIENTS

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Background: The most common types of anaemia in rheumatoid arthritis (RA) are iron deficiency anaemia (IDA) and anaemia of chronic disease (ACD). The differentiation between both is very important and challenging.

Objectives: is to select the most simple, cheap, accurate method differentiate IDA from ACD in RA patients.

Methods: This case control study was carried out on 80 RA patients. Group I 40 RA patients with anaemia Group II 40 RA patients without anaemia, complete blood count, assessment of disease activity using DAS 28 score, serum iron, total iron binding capacity (TIBC) "transferrin level", transferrin saturation (TSAT), serum ferritin, log ferritin and transferrin/log ferritin were tested, then we divided the patients in group 1 into 2 subgroups according to TSAT : group Ia (RA patients with anaemia and low TSAT) and group Ib (RA patients with anaemia and normal TSAT) and we compared the parameters.

Results: There was a statistically significant difference between anaemic and non anaemic RA patients as regard serum iron level and transferrin saturation and there was no significant difference as regard serum ferritin, log ferritin, transferrin and transferrin/log ferritin. Among the anaemic group (67.5%) had low TSAT (IDA) and only (32.5%) had normal TSAT (ACD). In these 2 subgroups there was no significant differences as regard DAS28 score, blood indices, serum ferritin and transferrin/log ferritin except Log ferritin and there was positive correlation between TSAT and (ferritin and log ferritin) and significant negative correlation between TSAT and transferrin/log ferritin.

Abstract FRI0081 – Table 1. Clinical and laboratory parameters in both groups

Characteristic	Group I ⁴⁰ RA +anaemia	Group II ⁴⁰ RA without anaemia	P
DAS-28	2.99±1.07	2.35±0.77	0.002*
Hb (g/dl)	9.62±0.96	12.95±0.64	<0.0001*
MCV (fl)	79.71±7.29	83.0±9.34	0.083
MCH (pg/cell)	26.06±4.05	28.05±2.66	0.006*
MCHC (g/dl)	31.1±2.21	31.23±2.38	0.8
Serum iron (µg/ml)	0.66±0.37	0.89±0.38	0.0076*
Serum ferritin (ng/ml)	83.02±93.08	84.87±86.82	0.927
TIBC (µg/ml)	3.94±1.06	3.71±0.59	0.23
TSAT (%)	17.7±10.6	24.73±11.36	0.0054*
Log ferritin	1.61±0.75	1.7±0.46	0.52
Transferrin/Log ferritin	3.23±3.8	2.41±0.9	0.18

Figure 1 Correlation between TSAT and (serum ferritin, log ferritin and Transferrin/Log ferritin)