Conclusion: There was no difference in the US findings improvement between patients with TNF inhibitor and non-TNF inhibitor at first biologics in patients with RA.

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AB0116

THE EFFECTS OF DISEASE MODIFYING ANTI-RHEUMATIC DRUGS ON PATIENT REPORTED OUTCOMES; PRELIMINARY RESULTS OF A SYSTEMATIC REVIEW AND NETWORK META-ANALYSIS

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Background: The need to involve patient reported outcomes (PROs) in the management of rheumatoid arthritis (RA) increases, since PROs quantify patient relevant outcomes. Although PROs have been incorporated in the core-outcome sets in clinical trials, knowledge about the treatment effects on these PROs is scarce. Therefore, we performed a systematic review on the effects of disease modifying anti-rheumatic drugs (DMARDs), of any type, on relevant PRO domains mentioned in the ICHOM standard set. This might support rheumatologists and RA patients during treatment decisions.

Objectives: To get insight in the treatment effects of DMARDs of any type on three PRO domains that matter to patients (pain, activity limitations and fatigue).

Methods: A systematic review was performed in Embase, Medline, Web of Science, Cochrane and Google Scholar. Included were all studies that were published before August 2019 and showed DMARD treatment effects in RA on PROs that are part of the ICHOM standard set. Three Bayesian network meta-analyses were performed for the PRO domains pain, activity limitations and fatigue. Preliminary results of DMARDs (in)directly compared to placebo were visualized by forest plots using R.

Results: The search strategy yielded n=5974 articles. After selection was performed by 2 independent researchers, n=70 individual articles representing n=53 studies were extracted, over the three PRO domains; pain (n=31), activity limitations (n=41) and fatigue (n=21). In all RCTs, PROs were only reported as secondary or tertiary endpoints. In figure 1, we show the effects on PROs for any type of DMARD investigated compared to placebo. Overall, DMARDs show a greater reduction in pain (standardized mean difference (SMD); -0.97 – -0.22) and most of them in activity limitations (SMD; -0.81 – 0.56). In fatigue, this clear direction is lacking (SMD; -0.86 – 3.5). csDMARDs and anti-TNF seem to perform slightly, but not significantly, worse than other bDMARDs and tsDMARDs in the first two domains.

Conclusion: Within this systematic review we report a reduction for DMARDs of any type on the domains of pain and activity limitations compared to placebo.

Figure 1.

However, results are still preliminary and should be interpreted with care. A more comprehensive network analysis might give a more definitive answer which DMARD performs best.

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AB0117

CARDIOVASCULAR MORBIMORTALITY IN RHEUMATOID ARTHRITIS: A 5 YEAR FOLLOW-UP STUDY

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Background: Rheumatoid arthritis (RA) is characterized by elevated cardiovascular morbimortality. RA patients have a higher risk to develop cardiovascular comorbidities when compared to the general population, being the main cause of mortality in these patients. Cardiovascular risk factors (CVRF) are well known, but their management is not optimal, increasing the risk of having a major heart disease (1).

Objectives: To assess the prevalence of the main causes of morbimortality and development of CVRF in RA patients during a five-year follow-up period.

Methods: A longitudinal and prospective study of a RA cohort from 2014-2019 was performed in a Cardio Rheumatology outpatient clinic at the University Hospital "Dr. Jose E. Gonzalez", UANL. Patients aged 40-75 years with RA according to ACR/EULAR 2010 criteria were recruited. At both visits, demographic, clinical variables, and lipid profile were recorded. Outcomes included the development of cardiovascular comorbidity: hypertension, diabetes mellitus (DM), dyslipidemia, myocardial infarction, stroke. Survival probabilities and outcomes cumulative frequencies were calculated according to the Kaplan-Meier lifetime analysis method. Descriptive analysis: frequencies (%), mean (SD), or median (q25-q75). Comparisons with McNemar and Student's t test.

Results: A follow-up was done in a total of 92 patients. During the follow-up, 9 patients (9.8%) died, 3 died of cardiovascular death (one myocardial infarction and two strokes). The mean age of death was 67.2 ± 10.5 years. CVRF at baseline (T0) and after five years (T5) are shown in table 1. Of the remain 83 patients, 11 patients (13.3%) developed hypertension (p=0.001), 8 (9.6%) patients developed DM (p=0.031). The number of patients with dyslipidemia decreased significantly to 14 (16.9%) (p=0.031), 4 (4.8%) developed a stroke. A survival probability of 95.7% was found at the five-year follow-up from the time of entry into the cardio rheumatology clinic (Figure 1 next page) and a 30.1% probability of developing cardiovascular comorbidity.

Conclusion: This long-term study provides updated information on RA morbimortality characteristics in our population. Patients with RA still develop significant cardiovascular comorbidities despite current treatment. In this cohort, hypertension and DM became more prevalent, and a 96% cardiovascular death-free survival was found. Is imperative to increase the effort in determining optimal markers and therapeutic measures to continue with the prevention of these comorbidities.

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Table 1. Demographic and clinical characteristics at the time of inclusion and at 5 years.

	T0 (n=83)	T5 (n=83)	p
Age years, mean ± SD	56.0 ± 8.9		-
Female, n (%)	75 (90.4)		-
Disease duration years median (q25-q75)	10.4 (4.4-15.7)		-
CVRF, n (%)			
Hypertension	27 (32.5)	38 (45.8)	0.001
Dyslipidemia	25 (30.1)	16 (19.3)	0.041
DM	6 (7.2)	14 (16.9)	0.008
Active smoking	8 (9.6)	6 (7.2)	NS
Overweight/Obesity	67 (81.7)	63 (81.9)	NS
Stroke	0	4 (4.8)	-
Clinical characteristics			
BMI kg/m ² , mean ± SD	28.1 ± 4.1	28.5 ± 4.3	NS
SBP mmHg, mean ± SD	123.7 ± 18.4	126.9 ± 16.8	NS
Total cholesterol mg/dl, mean ± SD	180.8 ± 29.0	173.9 ± 34.2	NS
Triglycerides mg/dl, mean ± SD	136.1 ± 56.1	146.1 ± 64.2	NS
HDL-C mg/dl, mean ± SD	55.2 ± 16.3	55.1 ± 15.9	NS
Statins, n (%)	9 (10.8)	13 (15.7)	NS
Methotrexate, n (%)	71 (85.5)	63 (75.9)	0.039
Glucocorticoids, n (%)	49 (59)	40 (48.2)	NS

NS, non-significant; CVRF, cardiovascular risk factors; DM, diabetes mellitus; BMI, body mass index; SBP, systolic blood pressure; HDL-C, high density lipoprotein cholesterol.

Figure 1. Kaplan-Meier survival curve showing 96% probability of remaining alive at 5 years.

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AB0118

REMEDIATION OF ANXIETY AND DEPRESSIVE DISORDERS IMPROVES HAQ TREATMENT RESPONSE IN RHEUMATOID ARTHRITIS PATIENTS

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Background: Anxiety and depressive disorders (ADD) significantly affect disease activity and functional disability in rheumatoid arthritis (RA) patients. Psychopharmacotherapy (PPT) of ADD attempts to improve RA disease activity and lower progression of functional limitations.

Objectives: To determine factors associated with HAQ treatment response in antidepressants-treated RA-patients at five years endpoint.

Methods: 128 RA-patients (pts) were enrolled, 86% were women with a mean age of 47.4±11.3 (M±SD) yrs. All patients met the full ACR/EULAR 2010 criteria for RA. Functional limitations were assessed using Health Assessment Questionnaire (HAQ), mean HAQ was 1.42±0.78 at baseline. 69.4% RA-pts were already taking prednisone (9 [5; 10] mg/day (Me (25%; 75%)), 84.4% - cDMARDs, 7.8% - bDMARDs (anti-TNF-α - 6.3%, rituximab - 1.6%). ADD were diagnosed by psychiatrist in 123 (96.1%) of RA-pts in accordance with ICD-10 in semi-structured interview. Severity of depression and anxiety was evaluated with Montgomery-Åsberg Depression Rating Scale (MADRS) and Hamilton Anxiety Rating Scale (HAM-A). RA-pts with ADD were divided into the following treatment groups: 1 - cDMARDs (n=39), 2 - cDMARDs + PPT (sertraline or mianserine) (n=43), 3 - cDMARDs + bDMARDs (n=32), 4 - cDMARDs + bDMARDs + PPT (sertraline or mianserine) (n=9). Biologics treatment duration varied from 1 to 6 years, antidepressants - from 6 to 96 weeks. Baseline HAQ scores were 1.39±0.75, 1.42±0.9, 1.58±0.76 and 1.38±0.83 in groups 1-4, respectively. At 5-yrs endpoint in 83 RA-pts differences between baseline and endpoint HAQ scores (Δ HAQ = endpoint HAQ - baseline HAQ) were assessed as HAQ treatment response with minimal clinically important difference (MCID) (Δ HAQ ≥ 0.22). HAQ response rates were 4.2%, 65.5%, 47.6% and 76.7% in groups 1-4, respectively, with the lowest response rate

in group 1 (p<0.0001). Logistic regression analysis was conducted to determine factors associated with RA remission rate.

Results: By univariate logistic regression, anxiety and depressive symptoms remission at 5-yrs endpoint, baseline HAQ and major depression, lower baseline age, BMI and DAS28, no minor depression and cardiovascular diseases at baseline were significantly (p≤0.2) associated with HAQ treatment response (table 1). These variables were subjected to multivariate stepwise logistic regression. Only remission of anxiety and depressive symptoms at 5-yrs endpoint (OR 6.6 (95%CI 1.78 - 24.43), p=0.005), higher baseline HAQ (OR 2.61 (95%CI 1.12 - 6.11), p=0.027) and lower baseline BMI (OR 0.9 (95%CI 0.85 - 0.96), p=0.001) were independently associated with HAQ treatment response at 5-years follow-up.

Table 1. Factors associated with RA remission at 5 years (univariate logistic regression).

Factor	p	OR	95%CI	
			low	up
Anxiety and depressive symptoms remission at 5-yrs endpoint	0.007	5.0	1.561	16.016
Baseline HAQ	0.01	2.657	1.264	5.588
Baseline major depression	0.142	2.082	0.782	5.542
Baseline age	0.098	0.992	0.982	1.002
Body mass index (BMI)	0.048	0.981	0.963	1.0
Baseline minor depression	0.167	0.563	0.249	1.273
Cardiovascular diseases	0.1	0.417	0.147	1.183
Baseline DAS28	0.008	0.077	1.071	2.096

Conclusion: higher HAQ and lower BMI at baseline and remission of anxiety and depressive symptoms at 5-yrs endpoint are independently associated with HAQ treatment response (MCID) at 5-years follow-up.

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AB0119

DISCORDANCE OF RAPID3 AND CDAI IN RHEUMATOID ARTHRITIS

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Background: The Clinical Disease Activity Index (CDAI) and the Routine Assessment of Patient Index Data 3 (RAPID3) ascertain rheumatoid arthritis (RA) disease activity and inform treatment decisions. The CDAI has provider and patient components, whilst the RAPID3 only has patient driven measures. During the COVID-19 pandemic, telemedicine visits relied on RAPID3 as a clinical outcome measure and subsequently was incorporated into all clinical visits in addition to the CDAI. On an ad-hoc basis, discrepancies were noted for the disease activity level generated by these two measures. The purpose of this retrospective study was to formally analyze the relationship between these measures.

Objectives: To determine the concordance of the outcome measures RAPID3 with CDAI in patients with established RA as a quality improvement project.

Methods: This is a retrospective study of 49 patients that fulfilled the American College of Rheumatology 2010 criteria for Rheumatoid Arthritis. IRB approval was obtained. The medical records of patients seen between June to October 2020 at the rheumatology department at UF health were reviewed. Data collected included age, gender, race, number of years with RA, Rheumatoid factor (RF) and anti-citrullinated protein antibody (CCP Ab) positivity, disease modifying treatments, ESR and CRP as well as CDAI and RAPID3 scores as calculated by clinic staff. The charts were reviewed by the authors and RAPID3 scores were verified.

Table 1. Patient Population

Age	35-90 years
Race	African American-13 Caucasian-10 Hispanic-3 Not Hispanic=13
RF Positive	35/49 (71%)
CCP Ab	37/49 (75%)
Both RF and CCP Ab Positive	32/49 (65%)
Patients on monotherapy	14/48 (29%)
Patients on dual therapy	29/48 (60%)
Patients on triple therapy	5/48 (10%)
Antirheumatic Drugs used	Plaquenil, methotrexate, leflunomide, etanercept, adalimumab, infliximab, tofacitinib, upadacitinib, rituximab
CDAI and RAPID3 Concordance	18/49 (37%)
RAPID 3 Higher than CDAI	22/49 (45%)
RAPID 3 lower than CDAI	7/49 (14%)
Incorrect Calculation of RAPID3 by clinic staff	11/42 (26%)