females. Only few data are available specifically focused on differences in drug use according to gender.

Objectives: To evaluate gender differences in treatment approaches in RA patients treated with bDMARDs (biological DMARDs)

Methods: We included RA patients aged ≥ 18 years, with disease duration ≥ 1 years, with a stable bDMARD treatment (≥ 12 months) in a monocentric cohort in the North-East of Italy. Social, demographic, and clinical features in addition to treatments were considered. To assess variables independently associated with gender, all variables achieving a $p < 0.20$ in univariate analysis were included in a multivariate regression model.

Results: Among 721 RA patients, 514 patients were eligible for the analysis and 407 were females. Compared with males, females had a lower BMI, a higher DAS28, a higher number of conventional synthetic DMARDs (csDMARDs) used before the start of bDMARDs, a higher number of bDMARDs with different mechanism of action (MoA), a larger use of prednisone and a lower rate of combination with MTX (Table 1). After adjustment for confounding factors, females had an increased probability of taking ≥ 2 DMARDs before bDMARDs (OR 2.21, 95% CI 1.25-3.93, $p = 0.007$) and a lower BMI (per 5-unit increase, OR 0.70, 95% CI 0.56-0.87, $p = 0.001$) compared to males (Figure 1).

Conclusion: In a cohort of Italian RA patients, females were treated with a higher number of csDMARDs before starting a bDMARD compared to males and a trend toward the use of more bDMARDs with different MoA. Further insight is needed regarding possible differences in the accessibility to bDMARD treatment and reasons for unsatisfactory treatment control in females.

Variables included in multivariate analysis: Age, Disease duration, Positive RF and/or ACPA, BMI, ≥ 2 csDMARDs prior to bDMARDs, Disease activity (DAS28), Combination with MTX, PDN use, Time on bDMARDs, TNF inhibitors use, ≥ 2 Mechanisms of action of biological drugs

Abstract THU0123 – Figure 1

Abstract THU0123 – Table 1.

Characteristics of the patients in the entire cohort (514 patients) and according to gender		Univariate Analysis		Multivariate Analysis	
	All patients	Females	Males	p value	OR (95% CI)
Number	514	407	107	-	-
Females, n (%)	407 (79.2)	407 (100)	0 (0)	0.037	-
Positive RF or ACPA, n (%)	300 (58.4)	247 (60.7)	53 (49.3)	0.186	-
Age, years, median (IQR)	62.5 (53.7-70)	63 (53.7-71)	62 (51.5-68.5)	0.001	per 5-unit increase (0.56;0.87)
BMI, median (IQR)	23.88 (21.24-27.54)	23.38 (20.76-26.99)	25.93 (23.05-28.36)	0.001	per 5-unit increase (0.56;0.87)
Overweight, n (%)	210 (40.9)	149 (36.6)	61 (57)	<0.001	-
Disease duration, year, median (IQR)	18 (12-25)	18 (13-26)	17 (12-22)	0.122	-
Flammaroid, n (%)	24 (22.4)	24 (26.7)	0 (0)	0.016	-
Employed, n (%)	39 (41.5)	31 (39.2)	8 (53.3)	0.310	-
Education level, n (%)	11 (10.7)	11 (12.8)	0 (0)	0.486	-
Social status, n (%)	5 (6.2)	4 (6)	1 (7.1)	0.325	-
Smokers, n (%)	16 (18)	13 (17.1)	3 (23.1)	0.604	-
Distance from clinic, km, median (IQR)	37 (20.51-25)	35 (20.60)	40 (30.45)	0.943	-
No. of assessment per year, median (IQR)	4 (3-4)	4 (3-4)	3 (2.75-4)	0.087	-
High adherence to treatment, n (%)	50 (46.3)	39 (42.9)	11 (84.7)	0.097	-
csDMARDs prior to bDMARD treatment					
Number, median (IQR)	3 (2-3)	3 (2-3)	3 (2-3)	0.072	-
≥ 2 csDMARDs, n (%)	448 (87.2)	364 (89.4)	84 (78.5)	0.003	2.03 (1.13-3.63)
MTX, n (%)	496 (96.5)	399 (98)	97 (90.7)	<0.001	-
LFN, n (%)	221 (43)	184 (45.2)	37 (34.6)	0.048	-
SSZ, n (%)	139 (27)	105 (25.8)	34 (31.8)	0.215	-
HCO, n (%)	334 (65)	274 (67.3)	60 (56.1)	0.030	-
Other csDMARDs, n (%)	184 (35.8)	145 (35.6)	39 (36.4)	0.437	-
Disease assessment at the last follow-up visit					
DAS28, median (IQR)	0 (0-2)	0 (0-2)	0 (0-2)	0.842	-
SJC, median (IQR)	2 (2-4)	2 (2-4)	2 (2-4)	0.893	-
CRP, mg/L, median (IQR)	40 (30-40)	40 (30-40)	40 (30-40)	0.970	-
CRP, mg/L, median (IQR)	5 (2-5)	5 (2-5)	5 (2-6.3)	0.113	-
DAS28, median (IQR)	3.09 (2.63-3.49)	3.1 (2.63-3.49)	2.99 (2.73-3.46)	0.855	-
Remission, n (%)	112 (21.8)	93 (22.9)	19 (17.8)	0.028	-
LDA, n (%)	198 (38.1)	147 (36.1)	49 (45.8)	0.063	-
MDA, n (%)	189 (36.8)	157 (38.6)	32 (29.9)	0.063	-
HAQ, n (%)	17 (3.3)	10 (2.5)	7 (6.5)	0.217	-
HAQ, median (IQR)	1.5 (1-1.8)	1.5 (1-1.8)	1.5 (1-1.8)	0.873	-
Physician-VAS, median (IQR)	35 (25-35)	35 (25-35)	35 (25-35)	0.796	-
SDAI, median (IQR)	11 (8-13.8)	11 (8-13.8)	10 (8-13.8)	0.802	-
CDAI, median (IQR)	10.5 (7.5-13.5)	10.5 (7.5-13.5)	9.5 (7.5-13.5)	0.802	-
csDMARDs associated with the bDMARD treatment					
MTX, n (%)	99 (19.3)	70 (17.2)	29 (27.1)	0.021	0.63 (0.38-1.06)
MTX dose, mg/week, median (IQR)	10 (10-10)	10 (10-10)	10 (10-10)	0.463	-
Subcutaneous/intramuscular vs oral	84 (80.4)	64 (61.5)	20 (57.1)	0.046	-
LFN, n (%)	29 (5.6)	26 (6.4)	3 (2.8)	0.153	-
SSZ, n (%)	3 (0.6)	2 (0.5)	1 (0.9)	0.592	-
HCO, n (%)	3 (0.6)	3 (0.7)	0 (0)	0.373	-
Other csDMARD, n (%)	2 (0.4)	2 (0.5)	0 (0)	0.468	-
Combination with MTX and/or LFN, n (%)	128 (24.9)	96 (23.6)	32 (29.9)	0.179	-
PDN use, n (%)	319 (62.1)	261 (64.1)	58 (54.2)	0.060	1.55 (0.99-2.43)
PDN dose, mg/day, median (IQR)	2.5 (0.5)	2.5 (0.5)	2.5 (0.5)	0.176	-
NSAIDs use, n (%)	43 (8.5)	33 (8.2)	10 (10.3)	0.699	-
bDMARD treatment					
Time on treatment, years, median (IQR)	10.05 (5.96-13.05)	10.13 (6.43-13.21)	9.72 (3.96-12.63)	0.106	-
Disease duration at the start, median (IQR)	8.1 (3.88-14.1)	8.3 (4.15)	8 (3.3-12)	0.205	-
Number (ever), median (IQR)	2 (1-2)	2 (1-2)	1 (1-2.5)	0.431	-
TNF-inhibitors use (ever), n (%)	482 (93.8)	378 (92.9)	104 (97.2)	0.100	-
MDA number (ever), median (IQR)	1 (1-2)	1 (1-2)	1 (1-2)	0.179	-
≥ 2 MDA, n (%)	118 (36.6)	117 (38.6)	31 (29)	0.066	-
Current subcutaneous vs. endovenous administration, n (%)	449 (87.4)	354 (87)	95 (88.8)	0.617	-

IQR, inter-quartile range; MTX, methotrexate; LFN, leflunomide; SSZ, sulfasalazine; HCO, hydroxychloroquine; csDMARDs, conventional synthetic disease-modifying anti-rheumatic drugs; bDMARDs, biological DMARDs; SJC, swollen joint count; CRP, C-reactive protein; DAS28, disease activity score 28; LDA, low disease activity; MDA, moderate disease activity; HAQ, high disease activity; HAQ, health assessment questionnaire; SDAI, simplified disease activity index; CDAI, clinical disease activity index; PDN, prednisone; NSAIDs, non-steroidal anti-inflammatory drugs; MOA, mechanism of action; TNF-inhibitors, tumor necrosis factor inhibitors; *data available in 107 patients; †adherence measured with the Italian validated Sitem Compliance Questionnaire for Rheumatology (i-CORSY)¹⁶.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2019-eular.3784

THU0124

INFLUENCE OF AUTOIMMUNE VASCULITIS ON LUNG DISEASES IN RHEUMATOID ARTHRITIS – A POSTMORTEM CLINICOPATHOLOGIC STUDY OF 161 PATIENTS

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Background: Complications of rheumatoid arthritis (RA) may modify the clinical course and symptoms of allied disorders leading to missed diagnosis or late recognition of associated diseases.

Objectives: The aim of this study was to determine the possible role of classic complications of RA: systemic autoimmune vasculitis (AV), AA amyloidosis (AAa), lethal cardiac insufficiency (CI) caused by endo-, myo- or pancarditis, with or without interstitial pneumonitis, furthermore lethal septic infection (SI) on prevalence and mortality of coexistent associated diseases: atherosclerosis (Ath), hypertension (HT), type 2 diabetes mellitus (DM), and tuberculosis (Tb) with miliary dissemination (mTb).

Methods: 234 non-selected autopsy patients with RA were studied. RA was confirmed clinically according to the criteria of the ARA.

The presence of AV, AAa, CI and SI was determined at autopsy and confirmed by a detailed review of extensive histological material. The prevalence and mortality of associated diseases Ath, HT, DM, Tb or mTb were determined and analyzed retrospectively, reviewing the clinical and pathological reports.

The link between AV, AAa, CI or SI and Ath, HT, DM, Tb or mTb was analyzed by (χ^2) test.

Results: RA was complicated by AV in 43 (18.4%), by AAa in 48 (20.5%), by CI in 15 (6.4%), and by lethal SI in 33 (14.1%) of 234 patients.

RA associated with severe Ath in 106 (45.3%), with HT in 41 (17.5%), with DM in 41 (17.5%), with Tb in 28 (11.9%) and with mTb in 9 (3.8%) of 234 patients.

As a basic disease Ath led to death in 61 (26.1% of 106), HT in 2 (0.9% of 41), DM in none (0% of 41) and Tb with mTb in 3 (1.3% of 28) of 234 patients. TB without miliary dissemination was not lethal in our patient population.

The statistical links ("p" values of significance) between complications of RA and prevalence or mortality of allied disorders are summarized in Table. (*asterisk indicates a negative value of associations' coefficient with inverse relationship).

Complications of RA	AV n=43 of 234	AAa n=48 of 234	CI n=15 of 234	SI n=33 of 234
Allied disorders in RA				
Ath n=106 of 234	$\chi^2=6.43^*$, $p<0.01$	$\chi^2=10.04^*$, $p<0.001$	$\chi^2=0.92^*$, $p<0.33$	$\chi^2=5.03^*$, $p<0.02$
Ath lethal n=61 of 106	$\chi^2=15.92^*$, $p<0.001$	$\chi^2=11.04^*$, $p<0.001$	$\chi^2=4.29^*$, $p<0.03$	$\chi^2=12.01^*$, $p<0.001$
HT 41 of 234	$\chi^2=3.20^*$, $p<0.07$	$\chi^2=0.03^*$, $p<0.86$	$\chi^2=0.00^*$, $p<0.92$	$\chi^2=1.27^*$, $p<0.25$
HT lethal n=2 of 41	$\chi^2=0.05^*$, $p<0.80$	$\chi^2=0.02$, $p<0.87$	$\chi^2=1.16^*$, $p<0.28$	$\chi^2=0.19^*$, $p<0.65$
DM 41 of 234	$\chi^2=0.05^*$, $p<0.81$	$\chi^2=1.05^*$, $p<0.30$	$\chi^2=0.92$, $p<0.33$	$\chi^2=0.01$, $p<0.91$
Tb 28 of 234	$\chi^2=4.02$, $p<0.04$	$\chi^2=2.61^*$, $p<0.10$	$\chi^2=0.33$, $p<0.56$	$\chi^2=0.37$, $p<0.54$
Tb lethal n=3 of 28	$\chi^2=0.00^*$, $p<0.93$	$\chi^2=0.02^*$, $p<0.86$	$\chi^2=0.53^*$, $p<0.46$	$\chi^2=0.01^*$, $p<0.89$
mTb 9 of 28	$\chi^2=4.24$, $p<0.03$	$\chi^2=0.08$, $p<0.77$	$\chi^2=0.01$, $p<0.91$	$\chi^2=0.05$, $p<0.82$
mTb lethal n=3 of 9	$\chi^2=0.00^*$, $p<0.93$	$\chi^2=0.02^*$, $p<0.86$	$\chi^2=0.53^*$, $p<0.46$	$\chi^2=0.01^*$, $p<0.89$

Conclusion: The inverse correlations between AV, AAa, CI, SI and Ath, HT, DM, Tb or mTb indicate that the prevalence and mortality of allied disorders were not influenced basically by the complications of RA.

The consequently inverse and (in most cases) significant correlations between prevalence of AV, AAa, CI, SI and the prevalence and mortality of Ath show that these are independent entities in RA. The AV, AAa, CI and SI are the most important complications of RA, and are characterized severe forms of disease, mostly involving younger patients, with an earlier onset (without pronounced atherosclerosis); while Ath is basically an age dependent phenomenon, characteristically present in RA patients with advanced age. RA patients with Ath may represent a special group of RA, characterized by lower incidence of AV, AAa, CI or SI, and a better prognosis.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2019-eular.604