Genzyme, UCB, Daniel Alvarez Shareholder of: Pfizer, Employee of: Pfizer, Amy Bock Shareholder of: Pfizer, Employee of: Pfizer, Carol Cronenberger Shareholder of: Pfizer, Employee of: Pfizer, Ivana Vranic Shareholder of: Pfizer, Employee of: Pfizer, Wuyan Zhang Shareholder of: Pfizer, Employee of: Pfizer, Rieke Alten Grant/research support from: Pfizer, Galapagos, Galapagos NV, Gilead, Gilead Sciences, Inc., Novartis, Consultant of: Pfizer, Speakers bureau: Pfizer

DOI: 10.1136/annrheumdis-2020-eular.279

AB0290

HERPES ZOSTER INFECTIONS IN RHEUMATOID ARTHRITIS PATIENTS EXPOSED TO BIOLOGICAL AGENTS AND JAK INHIBITORS. REAL-WORLD EVIDENCE.

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Background: The overall occurrence of Herpes zoster (HZ) infections in patients with rheumatoid arthritis (RA) is greater than in the general population although is controversial whether the use of the different disease-modifying antirheumatic drugs (DMARDs) increases this risk.

Objectives: To investigate the incidence and factors associate to HZ infections in patients with RA exposed to biologic agents (BA) and small molecule JAK inhibitors (JAKi), and to describe RA disease features at the moment of HZ infection.

Methods: Retrospective longitudinal study was conducted. We included RA patients seen at the rheumatology outpatient clinic of tertiary hospital, commencing BA (anti-TNF therapy and no anti-TNF therapy) or JAKi from Jan 2007 until Dec 2017, and followed up until end of study (Dec 2019). The outcome of interest was the occurrence of HZ infection, the diagnosis of HZ events was based on the rheumatologist's report. Covariables: sociodemographic, clinical, and concomitant treatments including glucocorticoids, conventional synthetic DMARDs (csDMARDs). Survival techniques were used to estimate the incidence of HZ (IR), per 1000 patient-year (PYs) with the respective Confidence Interval [95%CI]. Cox multivariate regression model to compare the risk of HZ was performed. Results were expressed in Hazard ratio (HR).

Results: 474 RA patients were included, starting 881 different courses of treatment (1954.86 patients-years of follow-up). 382 (80.6%) were women with a mean (SD) age of 56.9 (15.0) years at first BA. Across all groups of treatments, a total 18 HZ were recorded, events were non-serious and involved 1 or 2 dermatomes. The mean age (SD) at moment of the infection was 62 (11) years and 10 cases were on prednisone > 7.5 mg/day. 13 HZ cases (72.2%) occurred on treatment with anti-TNF treatment (6 with adalimumab, 4 with certolizumab and 1 with infliximab), 4 (22.2%) cases were on treatment with rituximab one occurred during tocilizumab prescription. The overall incidence of HZ was 9.20 cases per 1000PYs [5.80-14.61]. The crude IR was similar between gender, increased with age (Patients < 46 years: 2.17 [0.3-15.4]; >70 years 14.1 [5.8-33.8]), was higher with concomitant use of two csDMARDs (IR: 15.68 [7.8-31.7]), and was similar between anti-TNF and non anti-TNF therapy. None HZ event was recorded in patients exposed to JAKi. In the multivariate analysis, age (HR: 1.05, p: 0.006), prednisone dose > 7.5 mg/day (HR: 2.83, p: 0.02) and the concomitant use of two csDMARDs (HR: 2.34 p: 0.039) increase the risk for HZ. Lymphopenia (HR: 2.6; p=0.06) achieved a trend and BA therapy dropped from the model.

Conclusion: HZ incidence rate was 9.20 cases per 1000PYs, HZ occurrence in RA patients cannot be attributed solely to the current BA or JAKi treatment and other factors involved must be taking in count as age, concomitant DMARDs prescriptions, and use of glucocorticoids. Our data suggest that preventive strategies for HZ should be developed for patients with RA.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2020-eular.4465

AB0291

RITUXIMAB MAY DELAY THE MOVEMENT OF RHEUMATOID ARTHRITIS PATIENTS ON CARDIORENAL CONTINUUM: RESULTS FROM A PROSPECTIVE OBSERVATIONAL SINGLE-CENTRE COHORT STUDY

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Background: Similarities in risk factors, initial stages, progression and final stage of both atherosclerotic cardiovascular disease (ACVD) and chronic kidney disease (CKD) allowed formulating a concept of cardiorenal continuum.¹ ACVD and CKD remain the main causes of mortality in rheumatoid arthritis (RA) patients.^{2,3}

Objectives: To evaluate the effects of rituximab (RTM) therapy on cardiorenal continuum of RA patients.

Methods: Biologics-naïve RA patients (n=92; age 49.5±9.9) were followed up for 72 months after commencing and continuing RTM therapy (1–10 standard courses) compared with 50 control RA patients (age 49.2±9.8). All control and 63% of RTM patients received methotrexate or leflunomide.

Results: There were no baseline differences between two groups – Table. At year 6, RTM patients have fewer incidences of hypertension, anxiety/depression, atherosclerosis and diastolic dysfunction than controls. RTM decreased prevalence of albuminuria and CKD.

Table. Cardiorenal continuum of rheumatoid arthritis patients (%)

Features	Rituximab group			Control group			p _{RTM-C}
	1 year n=92	3 years n=47	6 years n=31	1 year n=50	3 years n=26	6 years n=16	
Risk factors							
Hypertension	52.2	38.3	25.8 p6– 1=0.022	50.0	38.5	50.0	p6=0.032
Dyslipidaemia	44.6	36.2	38.7	48.0	46.2	50.0	>0.05
Pre-diabetes	41.3	36.2	41.9	44.0	34.6	56.3	>0.05
Metabolic syndrome	12.0	6.4	3.2	10.0	7.7	12.5	>0.05
Diabetes mellitus	3.2	0	0	2.0	0	0	>0.05
Anxiety/depression	78.3	41.5 p3– 1=0.005	35.3 p6– 1<0.001	76.0	73.1	68.8	p3=0.009 p6=0.008
Initial stages (asymptomatic organ damage)							
Atherosclerosis	34.8	21.3	12.9 p6– 1=0.045	36.0	34.6	37.5	p6=0.02
Left ventricular hypertrophy	8.7	4.3	0	8.0	7.7	0	>0.05
Diastolic dysfunction	57.6	38.3	22.6 p6– 1=0.018	56.0	50.0	56.3	p6=0.04
Albuminuria	19.6	0	0 p6– 1=0.038	12.0	0	6.3	>0.05
Kidney impairment	6.5	2.1	0	6.0	0	0	>0.05
Progression							
Angina	6.5	0	0	4.0	0	0	>0.05
Chronic kidney disease	26.1	8.5	9.7 p6– 1=0.042	12.0	0	0	>0.05
End stage							
Myocardial infarction	0	0	0	0	0	0	>0.05
Stroke	0	0	0	0	0	0	>0.05
Heart failure	4.4	0	0	0	0	0	>0.05
Acute/chronic renal failure	0	0	0	0	0	0	>0.05
Death	0	0	0	0	0	0	>0.05

There were no significant differences in frequencies of other risk factors, signs of organ damage and cases of established heart, cerebrovascular and renal diseases/complications.

Conclusion: RTM may be effective in delay of the movement of RA patients on cardiorenal continuum. The clinical implications of RTM for cardiorenal correlations in RA patients need to be confirmed in large-scale clinical outcome trials.

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Disclosure of Interests: Ilshat Gaisin Speakers bureau: Boehringer Ingelheim, KRKA, Berlin-Chemie Menarini, Sanofi, Larisa Ivanova Speakers bureau: Bayer, Novartis, KRKA, Nikolay Maximov Speakers bureau: Pfizer, KRKA, Rosa Valeeva: None declared, Dilara Yurk: None declared, Anastasia Vedekhina: None declared, Nuriya Garaeva: None declared, Irina Sabelnikova: None declared

DOI: 10.1136/annrheumdis-2020-eular.2266