Table 2. Multivariate analyses of BRAF-MDQ and its subscales. * $p < 0.001$, ** $p < 0.05$. Cells represent beta coefficients with standard error

	Physical	Living	Cognitive	Emotional
Age	-0.10 (0.04)**	0.00 (0.04)	-0.00 (0.03)	0.04 (0.02)
Sex	-2.65 (1.70)	-0.74 (1.64)	-1.93 (1.26)	-1.21 (0.97)
RF positive	-3.80 (1.15)**	-2.85 (1.13)**		
HAQ ≥ 1.1	4.76 (1.14)*	4.05 (1.13)*	1.83 (0.90)**	1.91 (0.70) **
Non Anti-TNF	3.33 (1.18)**	2.60 (1.23)**		
VAS Pain				0.02 (0.01)**
DAS28-ESR		1.75 (0.65)**		
Depression			3.10 (1.19)**	
Good Sleep quality	-2.75 (1.10)**			

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2019-eular.7608

AB0321 MORTALITY AND COMPLICATION OF PATIENTS WITH RHEUMATOID ARTHRITIS ADMITTED TO INTENSIVE CARE UNIT IN KYUSHU UNIVERSITY HOSPITAL

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Background: The patients with rheumatoid arthritis (RA) are associated with high mortality caused by comorbidity and complication, and are often required the intensive treatment. Severe infections are among the most common causes of their mortality in intensive care unit (ICU)^{1,2}.

Objectives: To determine prognostic factors and mortality in patients with RA, including juvenile idiopathic arthritis (JIA), admitted to the ICU in Kyushu University Hospital, we examined the treatments of RA and JIA, comorbidities, complications, the reasons admitted to the ICU, intensive treatments, mortalities within 30 days, 90 days, and a year.

Methods: Between January 2008 and March 2018, 70 patients (20 males, 50 females) with RA (68) or JIA (2) staying at the ICU of our institution for 48 hours and over were included in this study. The admission to the ICU were performed total 77 of times because 5 patients were readmitted. The average of age and RA duration at the admission was 65.8 $\pm$ 17.7 years (5-96) and 13.5 $\pm$ 14.8 years (0-61), respectively, and the average of follow-up duration was 879.9 $\pm$ 992.0 days (3-3988).

Results: The mortality within 30 and 90 days were 21.4% (15/70) and 27.1% (19/70), respectively, and 24 of 65 patients (36.9%), excluded 5 patients due to the change of hospital, were dead within a year. The reasons for ICU admission included cardiovascular complications (22.9%), infection (30.0%), neurological complications (7.1%), respiratory problem (15.7%), gastrointestinal problems (4.3%), endocrinological cause (2.9%), liver problems (7.1%), kidney problems (4.3%), and others (5.7%). The average of ICU length of stay was 7.2 $\pm$ 7.6 days (2-39). The group of 30 days mortality was significantly higher in the amount of prednisone (8.1 $\pm$ 5.8 vs 4.5 $\pm$ 4.9), Charlson Comorbidity Index3 (5.1 $\pm$ 2.5 vs 2.7 $\pm$ 1.4), and APACHEII4 (21.7 $\pm$ 9.2 vs 14.5 $\pm$ 5.5) scores. The fatal outcomes within 30 days was mainly caused by infection (46.7%). In blood data, the low levels of platelet number, total protein, and albumin, and the high levels of creatinine and prothrombin time international normalize ratio at the time of admission of ICU were significantly poorer prognoses.

Conclusion: Our study has shown the high mortality of RA patients admitted to the ICU, and some blood data could be predicted poor prognosis.

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Disclosure of Interests: DOI: 10.1136/annrheumdis-2019-eular.3684

AB0322

BIOMASS SMOKE EXPOSURE LINKED TO HIGHER ACPA LEVELS IN MEXICAN-MESTIZO RA-PATIENTS

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Background: Rheumatoid arthritis (RA) is a chronic, inflammatory, autoimmune disease of the joints. Current classification criteria for RA diagnosis requires the presence of either rheumatoid factor (RF) or anti-citrullinated protein antibodies (ACPA). These have also been linked to chronic air pollutants exposure, such as tobacco smoke and biomass fuel smoke. Patients with COPD and biomass exposure have higher levels of ACPA (1). Nearly 50% of the world's population still rely on biomass fuels for cooking, heating and industry, especially in low-income countries (2).

Objectives: To investigate the prevalence of biomass exposure in a cohort of Mexican-mestizo RA-subjects, and the effect of it in their RF and ACPA levels.

Methods: A cross-sectional, observational trial with RA-subjects that fulfilled the 2010 ACR/EULAR classification criteria, recruited at a rheumatology clinic in northeastern Mexico. Patient evaluation included a complete clinical history, somatometry, and blood samples to measure hs-CRP, RF isotypes (IgA, IgG, IgM) and ACPA. Biomass exposure was documented using the biomass exposure index (BEI), defined as: average hours exposed per day multiplied by years of exposure. Descriptive analysis was done using frequencies (%) and median values (q25-q75). Subjects were divided into 3 groups according to their BEI: non-exposed, BEI <30 and BEI >30. Comparisons were done by Chi-square and Kruskal-Wallis test and correlation by Spearman's rho test.

Results: A total of 285 subjects were included, 154 (54%) of them had history of exposure. Comparisons are shown in Table 1. A significant difference in age was found ($p=0.006$), this being caused by a difference between the BEI=0 and BEI >30 groups ($p<0.001$). We also found a higher prevalence of dyslipidemia and hypertension in subjects with a BEI >30 ($p<0.05$). A significant correlation between a rising BEI and a higher value of ACPA ($\rho=0.14$, $p=0.016$) was found; this correlation was not found with any subtype of RF ($p>0.05$).

Table 1. Demographic and clinical characteristics of RA according to BEI groups.

	BEI = 0	BEI < 30	BEI > 30	p value
Age, years, median (q25-q75)	54 (47.9-59.3)	55 (49.2-61.4)	58.2 (51.8-65.4)	NS
Women, n (%)	120 (92.3)	72 (91.1)	71 (94.7)	NS
BEI, hours/year (median, q25-q75)	0 (0-0)	15 (2-19)	72 (42-160)	<0.001
Dyslipidemia, n (%)	32 (24.8)	19 (24.4)	33 (44.0)	0.011
Type 2 diabetes, n (%)	18 (13.7)	9 (11.4)	15 (20.0)	NS
Hypertension, n (%)	32 (24.4)	21 (26.6)	33 (44.0)	0.007
Body mass index, kg/m ² , median (q25-q75)	27.66 (25.07-31.6)	27.25 (24.32-31.6)	27.83 (25.52-31.2)	NS
Disease Duration, years, median (q25-q75)	9.03 (3.4-15.03)	9.5 (4.01-14)	9.04 (3.6-15.6)	NS
DAS 28-CRP, median (q25-q75)	3.17 (1.9-4.1)	3.38 (2.2-4.3)	3.39 (2.07-4.5)	NS
Negative ACPA, n (%)	46 (38.3)	20 (25.3)	20 (27.8)	NS
Group 1 ACPA, n (%)	26 (21.7)	19 (24.1)	14 (19.4)	NS
Group 2 ACPA, n (%)	31 (25.8)	21 (26.6)	18 (25.0)	NS
Group 3 ACPA, n (%)	17 (14.2)	19 (24.1)	20 (27.8)	0.016

Conclusion: In our cohort of Mexican-mestizo RA subjects, 54% had positive biomass exposure. Subjects with a BEI >30 were older and had a higher prevalence of dyslipidemia and hypertension. A significant correlation was found between higher BEI index and a higher value of ACPA antibodies.