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SAT0128

ARE THERE ANY DIFFERENCES BETWEEN ADULT-ONSET RHEUMATOID ARTHRITIS PATIENTS AND LATE-ONSET RHEUMATOID ARTHRITIS PATIENTS IN TERMS OF USE OF BIOLOGICAL DRUGS AND DRUG RETENTION RATE? RESULTS FROM THE TURKBIO REGISTRY

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Background: Rheumatoid arthritis (RA) is one of the most frequent rheumatic disease, and the age of onset is between 30-50 years old. Late-onset RA (LORA) is usually defined as RA with onset at age 60 or over.

Objectives: To investigate the choice, effectiveness and the retention rate of biological drugs in LORA patients.

Methods: TURKBIO registry is the Turkish version of Danish DANBIO rheumatological database which has been established in 2011. We studied RA patients in TURKBIO registry cohort between the dates of 2011 and 2020. All patients fulfilled the American College of Rheumatology criteria for RA and were classified into two groups based on their age at symptom onset: adult-onset RA (>18-<60 years; AORA) and LORA (≥60 years). In both groups, demographical, clinical and laboratory variables; disease activity, current and previous treatment were compared.

Results: From 10 centers, 2111 RA patients recruited, and 8.8% of them was LORA patients. In LORA, the frequency of female was less than AORA. While, there was no difference between LORA and AORA in terms of erosion presence and RF positivity, antiCCP positivity was more frequent in LORA group. The use of antiTNF was lower, and the use of rituximab was more frequent in LORA. At 12 months after bDMARDs therapy, serum CRP and ESR levels and DAS28-CRP showed higher changes compared to baseline values in LORA. Although the mortality rate was higher in LORA, the adverse reactions were reported to be higher in AORA, and most common adverse reaction was infections in both groups (Table). The longest survival was observed in infliximab and rituximab (median 22 and 20 months) in LORA, in rituximab and golimumab (median 16 and 12 months) in AORA.

Table. Comparison of demographic, laboratory findings and biological treatment

(median;25-75) n(%)	AORA (<60) (n:1925)	LORA (≥60) (n:186)	p
Age (year)	54 (43-61)	71 (68-74)	<0.001
Disease duration (year)	11.4 (7-18)	6 (4-9)	<0.001
Gender (Female)	1562 (81)	124 (67)	<0.001
Anti-CCP positivity	747 (62)	65 (72)	0.044
RF positivity	721 (61)	63 (70)	0.085
Erosion presence	486 (56)	41 (62)	0.955
Drug survival (months)	18 (6-44)	18 (4-31)	0.046
Concomitant csDMARDs			
MTX	629 (34)	39 (22)	0.001
SZP	146 (8)	13 (7)	0.781
LEF	501 (27)	35 (20)	0.032
bDMARDs			
AntiTNF	1068 (56)	73 (39)	<0.001
TCZ	304 (16)	20 (11)	0.069
TOFA	294 (15)	27 (15)	0.784
RTX	439 (23)	57 (31)	0.016
ABA	298 (16)	34 (18)	0.317
Response ΔESH (12 months) ΔCRP	-6 (-21-4)	-18 (-36--3)	0.016
ΔDAS28-CRP	-2 (-12-0.6)	-9.3 (-28--0.1)	0.014
ΔHAQ	-1.3 (-3--0.1)	-2.2 (-3--1)	0.023
Adverse effects	-0.3 (-0.8-0)	-0.4 (-0.8--0.1)	0.114
Malignancy	440 (23)	32 (17)	0.077
Infection	9 (0.5)	3 (1.6)	0.082
Allergy	192 (10)	10 (5)	0.042
Dermatitis	63 (3)	4 (2)	0.404
Death	62 (3)	1 (0.5)	0.040
Other	18 (0.9)	7 (4)	0.004
	136 (7)	11 (6)	0.556

Conclusion: The frequency of LORA who uses bDMARDs was 8.8% in our database. In the elderly patient population, there are some reservations about the use of biological drugs in general due to several co-morbidities and concomitant drug used. Although data on this issue are limited, appropriate biological use can be effective and reliable in required patients.

References:

- [1] Zulfigar AA, Niazi R, Pennaforte JL, Andres E. Late-onset rheumatoid arthritis: clinical, biyological, and therapeutic features about a retrospective study. *Geriatr Psychol Neuropsychiatr Viell* 2019;17:51-62

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SAT0129

ROLE OF SHARED EPITOPE ON THE EFFECTIVENESS OF TNFi TREATMENT FOR PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: Rheumatoid arthritis (RA) has been shown a strong genetic association with particular *HLA-DRB1* alleles containing shared epitope (SE). However, whether SE is clinically useful in treatment choices is insufficiently investigated¹ and previous studies have presented mixed findings in the role of SE in the response of TNFi therapies^{2,3}.

Objectives: To assess the role of SE in response to TNFi treatment in real-world RA patients (pts).

Methods: Pts enrolled in a large RA registry, Brigham and Women's Hospital RA Sequential Study, with known SE and received TNFi therapies were included for the analysis. TNFi pts were identified by the first-time use of the drugs between March 2003 to June 2018. For this analysis, all pts were followed up to 1 year. Summary statistics are reported for demographics, serostatus and disease activity (DA) at baseline and follow-up, stratified by SE status. Given the strong association of SE and anti-citrullinated protein antibody (ACPA), the analysis was further stratified by ACPA status. The effect of SE on change in DA was assessed using linear regression model with age, gender, RA disease duration, baseline DA, smoking status, SE, ACPA and ACPA-SE interaction as covariates.

Results: Of the 484 TNFi pts included in the study, 68.8% were SE+. SE+ pts (vs SE-) were more likely to be rheumatoid factor positive, have erosive