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SAT0097

DO COMORBIDITIES IMPACT PERSISTENCE OF FIRST TUMOR NECROSIS FACTOR INHIBITOR TREATMENT IN RHEUMATOID ARTHRITIS? DATA FROM TURKBIO

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Background: Studies indicate that patients with rheumatoid arthritis (RA) are at increased risk of developing several comorbid disorders. Comorbidities affect treatment decisions, the effectiveness of the treatment, quality of life, RA prognosis, and survival rate [1].

Objectives: The aim of this study to investigate the impact of comorbidity on the first TNF inhibitor treatment persistence in RA.

Methods: In the TURKBIO database, patients with an ICD 10-diagnosis of RA (M05 or M06) who started TNF inhibitor therapy between January 2011 and June 2019 were enrolled. Demographic and clinical characteristics, acute phase reactants, disease activity scores (DAS 28 CRP, HAQ, CDAL, VAS global), initial comorbidities and numbers, drug persistence, were evaluated. Kaplan-Meier plots and Cox proportional hazard regression analyses were performed.

Results: A total of 1172 patients >18 years of age treated with TNF- α inhibitors were included in the study. The most prevalent comorbidities were: hypertension in 262 patients (32.6%), obesity in 254 (32.6%), osteoporosis in 178 (22.3%), chronic lung disease in 143 (17.9%) and depression in 126 (15.8%). The baseline characteristics are summarised in Table 1. The presence of comorbidity did not affect the survival rate of the first TNF inhibitor therapy in the RA patients (p: 0.65). Comorbidities had no effect on DAS28 CRP (> 1.2 reduction) responses at 6 and 12 months of treatment (p: 0.18, p: 0.83, respectively). As the mean disease duration increases, the persistence of the first TNF inhibitor decreases by 5%.

Conclusion: This study demonstrated the increasing burden of comorbidities in RA. However, it suggested that the presence and number of comorbidities did not influence the rate of persistence in the first TNF inhibitor drug and the response to treatment.

Table 1 Characteristics of RA patients

Female, n (%)	935 (79.8)
Age, years*	51.0 $\pm$ 13.7
Current smokers, n (%)	256 (23.2)
RF Positivity, n (%)	404 (55.6)
Anti-CCP Positivity, n (%)	430 (58.2)
X-ray Erosion, n (%)	317 (61.9)
ESR, mm/h*	31.2 $\pm$ 21.9
CRP, mg/L*	17.2 $\pm$ 3.9
DAS 28-CRP*	3.8 $\pm$ 1.6
VAS global*	46.6 $\pm$ 28.6
HAQ*	0.9 $\pm$ 0.7
First TNFi	
Etanercept, n (%)	525 (38.7)
Adalimumab, n (%)	379 (27.9)
Infliximab, n (%)	118 (8.7)
Certolizumab, n (%)	188 (13.8)
Golimumab, n (%)	147 (10.9)

* mean $\pm$ S.D

RF, Rheumatoid factor; Anti-CCP, Anti-cyclic citrullinated peptid; ESR, erythrocyte sedimentation rate; CRP, C-reactive protein; DAS28-CRP, Disease Activity Score using 28 joints-CRP; VAS, Visual analog scale; HAQ, Health Assessment Questionnaire

References:

- [1] Gabriel, S.E. and K. Michaud, *Epidemiological studies in incidence, prevalence, mortality, and comorbidity of the rheumatic diseases*. Arthritis research & therapy, 2009. 11(3): p. 229.

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Rheumatoid arthritis - biological DMARDs

SAT0098

TREATMENT OF A COHORT OF PATIENTS WITH INTERSTITIAL LUNG DISEASE AND RHEUMATOID ARTHRITIS

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Background: There is no specific treatment for interstitial lung disease (ILD) secondary to Rheumatoid Arthritis (RA) other than the treatment of RA without extra-articular involvement. Current regimens usually include corticosteroid therapy with or without immunosuppressants (IS), there is no consensus for the treatment.

Objectives: To analyze the different treatment regimens in a cohort of patients with ILD and RA in our clinical practice.

Methods: Descriptive study of 57 patients treated in our Hospital (1/1/2018 until 12/31/2019) with a diagnosis of RA (ACR 2010 criteria) and secondary ILD.

The most recent American Thoracic Society (ATS)/European Respiratory Society (ERS)/Japanese Respiratory Society (JRS)/Latin American Thoracic Society (ALAT) guidelines define three HRCT (High Resolution Computed Tomography) patterns of fibrosing lung disease in the setting of idiopathic pulmonary fibrosis (IPF): definite Usual Interstitial pneumonia (UIP) (traction bronchiectasis and honeycombing), possible UIP and inconsistent with UIP. The distinction between definite UIP and possible UIP in these to the presence or absence of honeycombing. Approved by the Ethics Committee. Quantitative variables are expressed as mean (SD) and dichotomous variables as percentages (%). Statistical analysis with SPSS version 21.

Results: 21 men and 36 women were included, with a mean age of 69 $\pm$ 10 years (mean $\pm$ SD), history of smoking (smokers 14%, non-smokers 43%, former smokers 42%). Clinical ILD at diagnosis (dyspnea 61%, dry cough 56%, crackling 70%, acropachy 7%). 84% were positive rheumatoid factor and 70% positive anticitrullinated protein antibody.

Diagnosis of ILD by HRCT in 100% of patients with different patterns: defined UIP 26 (45%), probable UIP 2 (3%) and not UIP 29 (50%). The diagnosis of ILD was confirmed by biopsy in 12 patients.

79% underwent (T) treatment prior to the diagnosis of ILD with glucocorticoids and disease-modifying drugs (DMARD). Among the traditional DMARDs used were: Methotrexate 68% (there were no cases of MTX pneumonitis), Leflunomide 47%, Hydroxychloroquine 26% and Sulfasalazine 21%. Biological therapy in 15 patients: Etanercept 19%, Adalimumab 5%, Infliximab 3% and Certolizumab 2%. Two patients presented an exacerbation and rapid progression of the ILD during the T with Etanercept with the final result of death.

T with IS after the diagnosis of ILD in 80% of patients (Azathioprine 15, Rituximab 14, Abatacept 10, Tocilizumab 4, Sarilumab 1, Mofetil mycophenolate 1 and Cyclophosphamide 1).

Two patients with defined UIP perform T with antifibrotic: 1st Nintedanib (INBUILD Trial, This article was published on September 29, 2019, at NEJM.org) 2nd Pirfenidone (initial diagnosis of IPF Idiopathic Pulmonary Fibrosis and subsequent of seropositive RA with UIP). Both improved greater than 10% in forced vital capacity (FVC) and diffusion capacity of the lung for carbon monoxide (DLCO) in the 6 months after onset of T.

Conclusion: Our results, in general, agree with what is published in the literature. Prospective, multicentre and larger sample studies are necessary to better define which patients would benefit more from IS T or antifibrotic T (or if the antifibrotic should be added to the previous IS).

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SAT0099

BMI AND TREATMENT SURVIVAL IN RA PATIENTS STARTING TREATMENT WITH TNFA-INHIBITORS: LONG TERM FOLLOW-UP IN THE REAL LIFE METEOR REGISTRY

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Background: BMI appears to be associated with treatment response on TNFi (inhibitors) in rheumatoid arthritis (RA), but large heterogeneity between studies exists. More extreme BMI categories are rarely studied and it is unclear if differences exist between various TNFi.¹