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AB0409

B CELLS PROFILE AS A BIOMARKER FOR EARLY IDENTIFICATION OF OPTIMAL RESPONDERS TO TNF INHIBITORS IN RHEUMATOID ARTHRITIS

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Background: The most common biological agents used as disease-modifying treatment in rheumatoid arthritis (RA) are TNF inhibitors (TNFi). Although these new strategies to treat RA have improved the course of the disease, approximately 30-50% of patients do not respond to this therapy. Early identification of optimal responders is crucial in the clinical setting.

Objectives: The aim of this study was to investigate if baseline percentages of different leukocyte subsets in peripheral blood (PBMCs) can contribute to identify RA patients who will respond to TNFi.

Methods: This was a prospective bi-center pilot study including 100 RA patients under TNFi therapy. Clinical activity was assessed at baseline and 6 months of treatment by disease activity score 28 (DAS28), considering optimal responders if they reached remission at 6 months (DAS28≤2.6). PBMCs were obtained before treatment and different leukocyte subsets were evaluated by flow cytometry (FACSCantoII instrument). The association between the percentage of PBMCs at baseline and clinical response at 6 months was evaluated through logistic regression models (odds ratio; 95% CI). All the analyses were adjusted by sex, age, disease duration, concomitant methotrexate, baseline DAS28 and seropositivity (ACPA and/or RF).

Results: Demographic characteristics are shown in Table 1. After 6m of TNFi treatment, 40% of the patients achieved clinical remission. A significant association between higher percentage of total B cells (OR=1.19; 95% CI:1.05-1.35; p=0.007) and naïve B cells (Bn; OR=1.32; 95% CI:1.08-1.61; p=0.007) at baseline and clinical response was found. The other PBMC subsets (monocytes, NK cells, CD4+ and CD8+ T cells subtypes) did not show statistical differences (Figure 1).

Conclusion: Our results suggest that basal B cells profile may contribute to identify optimal responders to TNFi in RA. (Funding: ISCIII (PI16/01092, PI16/00474).

Figure 1. legend: Association between the percentage of PBMC subset before TNFi and the clinical remission. Multivariate logistic regression analysis was performed for each PBMC subset. The percentage of total B cells and in naïve B cells were independently associated with the clinical response. No association was found in other PBMC subsets. The analyses were adjusted by sex, age, disease duration, concomitant-methotrexate, seropositivity and baseline-DAS28.

Baseline patients' characteristics	Total patients (n=100)
Age (years); mean±SD	53±13
Female; n (%)	84 (84)
Disease duration (years); median (IQR)	8 (4-12)
Rheumatoid factor positive; n (%)	77 (77)
ACPA positive; n (%)	83 (83)
Smoking habit; n (%)	
no	46 (46)
smoker	20 (20)
ex-smoker	34 (34)
Body mass index (kg/m ²); median (IQR)	24.8 (22.9-29.6)
DAS28; mean±SD	4.8±1.2
CRP (mg/L); median (IQR)	5.7 (2.2-12.4)
Previous TNFi treatment; n (%)	13 (13)
TNFi type; n (%)	
Monoclonal antibodies	55 (55)
Etanercept	45 (45)
TNFi monotherapy	4 (4)
Concomitant csDMARD; n (%)	96 (96)
OnlyMethotrexate (MTX)	51 (51)
OnlyothercsDMARDs (OD)*	18 (18)
MTX + OD	27 (27)
Prednisone; n (%)	57 (57)

Table 1

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AB0410

DISCONTINUATION OF ORAL GLUCOCORTICOID AFTER INITIATION OF BIOLOGICAL DMARD DUE TO A HIGHER DOSE OF METHOTREXATE; A RETROSPECTIVE OBSERVATIONAL STUDY BASED ON DATA FROM A JAPANESE MULTICENTER REGISTRY STUDY

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Background: In the treatment of rheumatoid arthritis, glucocorticoid that provide anti-inflammatory effects in the early stage of treatment is an important drug. We recommend discontinuing of glucocorticoid as much