Figure 1. Persistence of TCZ Therapy Among All TCZ Initiators, TCZ Initiators Excluding Those With No Reported Reason for Discontinuation and TCZ-IV Initiators

Number of Patients at Risk	0	6	12	18	24	30	36
All TCZ initiators	1789	1245	861	636	483	378	298
Excluding TCZ initiators with no reported reason for discontinuation	1303	947	663	516	399	318	257
TCZ-IV initiators	1284	921	644	482	376	307	244

IV, intravenous; TCZ, tocilizumab.

Figure 2. Estimated Effects of Covariates on Duration of TCZ Persistence Among (A) All TCZ Initiators, (B) TCZ Initiators Excluding Those With No Reported Reason for Discontinuation and (C) TCZ-IV Initiators

CDAI, Clinical Disease Activity Index; csDMARD, conventional synthetic disease-modifying antirheumatic drug; IV, intravenous; mDAS, modified Disease Activity Score; RA, rheumatoid arthritis; TCZ, tocilizumab; TNFi, tumor necrosis factor inhibitor. * $P < 0.05$

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FRI0105

EVALUATION OF CXCL13 AND ICAM1 SERUM LEVELS AS PREDICTORS OF CLINICAL RESPONSE TO ABATACEPT IN RHEUMATOID ARTHRITIS.

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Background: Soluble intercellular adhesion molecule 1 (ICAM1) and C-X-C motif chemokine 13 (CXCL13) were described as differentially associated with two major subtypes of synovitis in rheumatoid arthritis (RA). Raised serum levels of ICAM1 (which is upregulated in synovial fibroblasts in response to TNF α), and of CXCL13 (which is expressed by synovial follicular dendritic cells and activated mature antigen-experienced T-helper cells), are associated with a myeloid or lymphoid synovial phenotype, respectively (1). It has been suggested that a preferential clinical response to anti-TNF α , as compared to anti-IL-6R monotherapy, can be predicted by measuring these two biomarkers (2). No information is available on the possible utility of these biomarkers in RA patients treated with abatacept (ABA), a T-cell co-stimulation blocker.

Objectives: To analyze the effect of ABA on ICAM1 and CXCL13 serum levels in RA and to verify whether they predict the response to the drug.

Methods: 63 RA patients [F/M=51/12; median (10th-90th percentile) age=60 (41-72) years; CRP-DAS28=4.6 (3.3-5.8); ACPA positive: 86%], before and after 6 months of treatment with ABA + methotrexate and 22 sex and age-matched healthy controls (HC) were evaluated. Serum ICAM1 and CXCL13 levels were dosed by commercial ELISA (Life Technologies and R&D). Response to treatment was defined with the EULAR criteria.

Results: CXCL13 serum levels were higher in RA at baseline than in HC [136 (42-325) vs 32 (19-57) pg/ml, $p < 0.01$], while no difference was observed in ICAM1 [186 (125-276) vs 184 (153-246) ng/ml, $p = 0.9$]; positive correlations between ICAM1 and CRP ($r: 0.28$; $p = 0.03$) and CXCL13 levels and CRP ($r: 0.40$; $p < 0.01$) and CRP-DAS28 values ($r: 0.27$, $p = 0.05$) were found. After therapy with ABA, a reduction of CXCL13 was observed [136 (42-325) vs 94 (29-319) pg/ml, $p < 0.01$], both in responders [$n: 37$: 151 (57-462) vs 97 (26-329) pg/ml; $p < 0.01$] and non-responders ($n: 14$: 142 (68-293) vs 89 (42-198) pg/ml; $p = 0.01$). Not significant variation of ICAM1 serum levels was found in the entire cohort [186 (125-276) vs 190 (113-252) ng/ml, $p = 0.06$]. However, a significant decrease was observed in non-responders [222 (169-302) vs 186 (110-233) ng/ml, $p = 0.02$]. At baseline, no significant difference was found among patients seropositive for ACPA if compared with the negative ones [ACPA+ vs ACPA- for ICAM1 [187 (123-280) vs 177 (134-258) ng/ml; $p = 0.7$] and for CXCL13 [143 (42-368) vs 113 (56-270) pg/ml; $p = 0.4$].

Conclusion: Our results confirmed that CXCL13 serum levels are directly correlated with disease activity and demonstrated that ABA therapy induces their reduction. These findings suggest that the co-stimulation blockade at central level and/or in the synovium lead to a reduced production of CXCL13. We could not demonstrate that CXCL13 levels predict the clinical response to ABA in this cohort of patients.

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RISK FACTORS FOR SERIOUS INFECTIONS IN PATIENTS WITH RA INITIATING TREATMENT WITH BIOLOGIC DMARDS: A REAL-WORLD POPULATION-BASED OBSERVATIONAL STUDY

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