Figure 1. No, moderate and good response to RTX treatment

No significant difference during the 5-year follow-up was found regarding previous use of bDMARD or not and for concomitant use of csDMARDs or not for variables listed in the table 1.

Drug survival for the RTX was 83% (95CI 77-87%) after 1 year, 66% (95CI 60-72%) after 2 years, 53% (95CI 46-59%) after 3 years, 46% (95CI 39-52%) after 4 years and 34% (95CI 28-40%) after 5 years of follow up.

No significant difference in drug survival was found between bDMARD naïve and previous users of bDMARDs or between concomitant and non-concomitant users of csDMARDs. RF positive patients had a better drug survival.

In prediction analysis RF positive status, high baseline DAS28, low baseline CRP, previous bDMARDs use, short disease duration and low MHAQ were found to be independently associated with better drug survival.

Conclusion: Our real life data shows that RTX treated RA patients had a satisfactory treatment response and drug survival declines rather linearly over time. However, a significant treatment response was achieved primary in the second year indicating that at least 2 twin infusions should be given before identifying treatment failure.

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AB0220

ANTI-CITRULLINATED PROTEIN ANTIBODY (ACPA) POSITIVITY IS ASSOCIATED WITH REDUCED WITHDRAWAL RATES OF ABATACEPT IN RHEUMATOID ARTHRITIS BUT ONLY IN PATIENTS WHO ARE ANTI-NUCLEAR ANTIBODY (ANA) NEGATIVE

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Background: Abatacept, a selective inhibitor of T cell co-stimulation, is often used as a second-line biologic disease-modifying anti-rheumatic drug (bDMARD) after the failure of tumour necrosis factor inhibitor (TNFi) in Rheumatoid Arthritis (RA). However, in comparison to TNFi very few survival analyses of abatacept have been reported.^{1,2}

Objectives: To investigate predictors of abatacept discontinuation due to either inefficacy or adverse events in RA patients over 5-years.

Methods: A retrospective observational analysis was conducted on a tertiary hospital dataset of RA (according to 2010 ACR/EULAR criteria) patients who started abatacept (either intravenous or subcutaneous). Time to abatacept discontinuation over 5-years was estimated using Kaplan-Meier survival analyses. A multivariate cox-regression model to predict abatacept discontinuation was chosen by elastic net regularisation.

Results: A total of 112 patients with RA [81% female, mean age 58.1 (SD 13.5) years] commenced abatacept therapy during the study period. 88 (78.6%) patients received intravenous abatacept, 14 (15.9%) of whom switched to subcutaneous injection, and 24 (21.4%) were initially treated with subcutaneous abatacept, 2 (8.3%) of whom switched to intravenous. More than half of the patients (65/112) were treated with at least one concomitant conventional synthetic DMARD (csDMARD). Methotrexate was the most commonly used (n = 37) csDMARD, followed by hydroxychloroquine (n = 23), sulfasalazine (n = 15), and leflunomide (n = 7). 42 (37.5%) patients were treated with glucocorticoids (either oral, intra-articular, or intramuscular injection) during the time they were treated with abatacept. Abatacept was most commonly used as 4th (n = 29) and 3rd line (n = 24) bDMARD but 19 patients received abatacept as their first line bDMARD. 75 (67%) patients were rheumatoid factor (RF) positive and 73 (65.2%) were anti-citrullinated protein antibody (ACPA) positive. Anti-nuclear antibody (ANA) was positive in 32 patients. Abatacept was discontinued in 54 patients (48.2%); 19 (35.2%) due to an adverse event and 35 (64.8%) due to loss of efficacy. Overall, the median time to discontinuation of abatacept was 3.8 years.

Multivariate cox regression (variables chosen by the elastic net and adjusted by whether or not abatacept was used as first-line therapy) showed that ACPA positivity was associated with a reduced risk of abatacept discontinuation with a hazard ratio (HR) of 0.40 (95% CI 0.18 to 0.85, p=0.02, N. of events 16/47) compared to ACPA negative patients (N. of events 15/23), but only if ANA was negative. In contrast, ACPA positivity did not reveal any retention benefit over ACPA negative patients, if they were ANA positive.

ACPA positive patients without positive ANA increased the time-to-discontinuation of abatacept predominantly after 3-months (unadjusted log-rank p=0.02), compared to ACPA, and ANA negative patients (Figure 1). Adding csDMARDs with abatacept, reduced the risk of discontinuation of abatacept by 59% (95% CI 24% to 77%, p = 0.004, N. of events 26/65) compared to monotherapy (N. of events 28/47).

Conclusion: Our data suggests patients who are ACPA positive and ANA negative are more likely to remain on abatacept therapy. Concomitant csDMARD use also acts as a positive predictor of abatacept treatment retention.

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Figure 1. Kaplan-Meier survival curve of retention of abatacept, stratified by Anti-citrullinated protein antibody (ACPA) and antinuclear antibody (ANA).

+ACPA/-ANA = ACPA positive and ANA negative, +ACPA/+ANA = ACPA positive and ANA positive, -ACPA/-ANA = ACPA negative and ANA negative, -ACPA/+ANA = ACPA negative and ANA positive, HR = Hazard ratio.

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AB0221

CURRENT IMPLEMENTATION OF TREAT-TO-TARGET APPROACH IN RHEUMATOID ARTHRITIS TREATMENT: THE PERSPECTIVE OF CHINESE RHEUMATOLOGISTS

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Background: Treat-to-target (T2T) approach is recommended as a standard management strategy in rheumatoid arthritis (RA) treatment by Chinese guideline for diagnosis and treatment of RA^[1]. However, there is little known about its current implementation in China.