Figure 1. Effect of csDMARD, bDMARD and prednisolone on fibrocyte differentiation.

Ledgend: Demonstrates the different medical agents used and the number of cultured fibrocytes counted after 5 days of incubation. Values are mean $\pm$ SEM. ** indicates statistical significance compared with the control well by ANOVA compared to the control ($p < 0.05$)

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AB0415

SURVIVAL OF BIOLOGIC AGENTS WITHIN A COHORT OF GREEK PATIENTS WITH RHEUMATOID ARTHRITIS. REAL WORLD DATA.

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Background: Rheumatoid arthritis (RA) is treated successfully with biologic disease-modifying anti-rheumatic drugs (bDMARDs). However, a significant withdrawal rate, due to non-responsiveness or toxicity, remains a major barrier for their long-term use.

Objectives: To determine the withdrawal rate of the first bDMARD in a large cohort of RA patients due either, to non-responsiveness or toxicity.

Methods: In this study, were included retrospectively 220 patients from our outpatient clinic. The following bDMARDs were evaluated: Etanercept (n=66 patients), Adalimumab (n=61 patients), Infliximab (n=70 patients), Rituximab (n=6 patients) and others, such as Certolizumab pegol, Golimumab, Tocilizumab, Anakinra and Abatacept (n=17 patients). Disease activity was regularly measured by DAS-28 until the end of follow up. Kaplan-Meier plots were performed to examine the withdrawal rate of each biologic agent. Severity of AEs was classified according to the Common Terminology Criteria for Adverse Events (CTCAE, version 4.03).

Results: A total of 220 patients (49 men, 171 women) were included in the analysis. The most frequently used first-line bDMARDs were Infliximab (31.8%), Etanercept (30%) and Adalimumab (27.7%). The median of treatment duration with the first bDMARD was 15 months (Q1:8, Q3:40.5). Taking all bDMARDs as a whole, 126 patients (57.27%) discontinued the first bDMARD, either due to AEs (n=66, 52.38%), or loss of efficacy (n=60, 47.62%) after a follow-up of 167 months. However the most withdrawals (53.18%) occurred within the first 60 months of follow-up. Mean initial and final DAS-28 were: for those who discontinued treatment due to AEs 4.96 ± 1.33 (95%CI 4.64-5.28) and 3.43 ± 1.47 (95%CI, 3.08-3.79), respectively, for those who discontinued due to failure of therapy: 5.04 ± 1.37 (95%CI, 4.70-5.39) and 4.91 ± 1.27 (95%CI, 4.59-5.23) respectively and for those who continue 4.79 ± 1.55 (95%CI, 4.47-5.10) and 2.63 ± 1.06 (95%CI, 2.41-2.84), respectively.

Differences in survival among bDMARDs are attributed to their AEs and not to their efficacy. As far as the AEs are concerned, infections constituted the majority of cases (n=23, 34.8%), from which 34.8% needed hospitalization (CTCAE 3-4). The percentage of 12,1% of AEs is attributed to cancer cases, while allergic reactions counted for 31,8% of them. Survival of Etanercept within our cohort was significantly longer than those of other bDMARDs.

Conclusion: Biologic agents are important drugs in our armamentarium to combat RA. However nearly 50% of patients discontinue these agents after 60 months of treatment due either to AEs or inefficacy. Differences in survival of bDMARDs were associated not to their inefficacy, but to their AEs. Choosing the right drug for the right patient is a matter of advanced research involving a better understanding of the plasticity of the pathways of inflammation and specific biomarker selection.

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