AB0243

CONSIDERING THE COMBINATION OF TWO BIOLOGICS IN CASE OF FAILURE OF THE MONOTHERAPY IN JUVENILE ONSET RHEUMATOID ARTHRITIS

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Background: The management of rheumatoid arthritis refractory to conventional synthetic disease-modifying antirheumatic drugs (csDMARDs) is currently well codified and includes different types of biologics and even targeted sDMARDs. A rotation of biologic therapies is recommended in order to better control the disease.

Methods: We report the case of a 20-year-old patient followed in our hospital for the management of a deforming and erosive seropositive rheumatoid arthritis (FR +, ACPA +) with a juvenile onset at the age of 8 years. The diagnosis of an immunopositive polyarticular form of JIA was retained in 2010 (9 years old); the patient was treated with methotrexate (MTX) at a dose of 10mg per week and methylprednisolone at doses varying between 4 and 10mg per day. Following the failure of MTX, etanercept was introduced for 6 months without success, followed by tocilizumab in 2012 at a dose of 8mg/kg/month for a year, without good response. In 2014, a course of rituximab (RTX) at a dose of 2 shots of 500mg, 2 weeks apart was prescribed followed 9 months later by etanercept at a dose of 50 mg a week for 3 years then by adalimumab (40mg/ week) because of the multiple treatment failures.

In 2018, the repetition of RTX at a dose of 1g, renewed 15 days later, improved the patient for only 3 months. Then, a combination of two biologics, namely RTX (2 x 1g, 15 days apart) and adalimumab 1 month later (40mg / week) was received by the patient with a good response at 3 months. The latter was maintained for 7 months even after stopping the adalimumab following confinement for COVID-19. In September 2020, flares occurred and the adalimumab (ADA) has been delivered but without success during 3 months, stopped later for a benign form of COVID-19 (15 months after RTX). In January 2021, the association RTX + ADA was given again and we hope that it will be as effective as the first prescription.

Results: The clinical and biological severity of our patient's rheumatoid arthritis led us to give a combination of two biological treatments. Indeed, we do not have other therapeutic classes to deliver to her, that encouraged us to rotate between all the available biological therapies in our country. The combination of a CD20 inhibitor (RTX) with a TNF blocker (ADA) was safe and made possible, for the first time, the achievement of clinical and biological remission during 7 months, even after stopping the TNF blocker. Greenwald *et al.* reported the safety of the combination of RTX + TNF inhibitors in a randomized clinical trial in 51 patients. Its efficacy, a secondary goal of the study, was suggested at 24 weeks by the percentage of ACR 20 and ACR 50 responses that was greater than in the RTX placebo group.

Conclusion: The combination of RTX with a TNF blocker can be a real alternative therapy in rheumatoid arthritis with failure to a biological monotherapy.

Disclosure of Interests: None declared

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AB0244

INFLUENCE OF BIOLOGICAL DRUGS ON HEALTH-RELATED QUALITY OF LIFE IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: The level of the Health-related quality of life (HRQL) in patients with rheumatoid arthritis (RA) is often neglected in their medical care. While, these patients are suffering from a precarious quality of life, resulting from pain, impaired physical function and fatigue. The use of biological agents for treating this disease is then a challenge, leading to the possibility of reducing the consequences of the disease.

Objectives: The main purpose of this study was to compare the level of HRQL in patients with rheumatoid arthritis (RA) during therapy applying disease-modifying antirheumatic drugs (DMARDs) with conventional synthetics (csDMARDs) or with csDMARDs in combination with biological drugs (bDMARDs).

Methods: The study involved 120 patients with RA, divided into two groups: group I –treated using csDMARDs (combination therapy: methotrexate and salazopyrine), group II – using csDMARDs in association with bDMARDs which included TNF inhibitors (etanercept and adalimumab). All the studied patients were surveyed with the use of the following questionnaires: *the short-form health survey (SF-36)* for HRQL that assesses eight domains: functional capacity (ten items), physical aspects (four items), pain (two items), general health (five items), vitality (four items), social aspects (two items), emotional issues (three items)

and mental health (five items), in addition to one item to compare current health status and that of the previous year, *The AIMS2-SF*, and *Health Assessment Questionnaire (HAQ)*. The questionnaires were filled out at the consultation after patient's consent. The 28-Joint Disease Activity Score (DAS-28) was calculated.

Results: Group I consisted of 72 persons including 55 women and 17 men with a mean age of 58.4 years. Group II contained 48 patients where females predominated (sex ratio: 0.3), the mean age was 52.4 years. The majority of patients (53.3%) had been diagnosed with RA for more than five years. Most of the SF-36 domains showed significant improvement in the second group ($p < 0.01$), highlighting the social aspects, pain, physical functioning, emotional issues, vitality and physical aspects. The mean score of HAQ II decreased from 1.97 up to 1.23 with biological therapy ($p < 0.01$). The highest AIMS scores were comparatively in the two groups (I vs II): in social activity (6.49 ± 1.93 vs 6.23 ± 1.56), pain (4.70 ± 2.04 vs 4.01 ± 2), depression (4.70 ± 2.23 vs 4.66 ± 2.03), and physical activity (4.03 ± 2.10 vs 4.01 ± 2.08). The DAS-28 value, the number of swollen joints, and the duration of morning stiffness were significantly smaller among patients from group II ($P = 0.04$). After logistical regression, treatment with bioterapy was isolated as a fundamental independent factor influencing the mental component of SF-36 scale with an OR of 1.59.

Conclusion: we conclude that the use of biologic therapy in patients with RA proved to be an important pharmacological strategy for improving HRQL and functional capacity as assessed by the HAQ II and SF-36 instruments. The intensity of the activity of RA as well as experiencing pain and the duration of morning stiffness were smaller among patients applying csDMARDs plus bDMARDs compared with patients treated only with csDMARDs.

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AB0245

ANALYSIS OF THE CLINICAL AND ANTIDESTRUCTIVE EFFECTS OF RITUXIMAB DEPENDING ON GENDER IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: Rheumatoid arthritis is a chronic autoimmune disease characterized by inflammation of the synovial tissue and destruction of the underlying cartilage and bones. It was found that RA more often affects women than men, with a sex ratio of 3: 1. And the question of the influence of gender on the outcomes and course of RA remains controversial, there is no consensus on whether RA is worse in women or men. Recent reports indicate that women are less likely to achieve remission than men. Women suffer from RA at an earlier age and have higher markers of disease activity such as DAS28 and HAQ. Rituximab is a chimeric monoclonal antibody that targets the CD20 molecule expressed on the surface of B cells, it has been successfully and widely used for the treatment of rheumatoid arthritis, so it is of interest to assess whether gender influences the therapeutic and radiological effects of RTX.

Objectives: The aim of this study was to analyze the impact of gender on the response to rituximab (RTX) in patients with RA.

Methods: Initially, 221 women(w), 27 men(m), were examined to assess the clinical and X-ray effect (88w/6m), who received RTX treatment (1000 mgx2 or 500 mgx2). Both groups were comparable in terms of the main clinical and laboratory characteristics (age, duration of the disease, the number of preceding DMARDs, in both groups most patients were RF + and ACCP +, a high degree of activity according to DAS 8 - men - 5.6 [4.6-6.7], women - 6.04 [5.2-6.63] Initially, the degree of radiological changes in men is slightly higher than in women ($p > 0.05$). Clinical effect was scored by EULAR criteria, radiographic progression was assessed using Sharp/van der Heijde modified scoring method.

Results: When assessing the clinical effect after 48 weeks in men, a significantly better effect of RTX treatment was noted in comparison with women (Δ DAS28, a significantly better effect was noted in men - Δ DAS28 = $-3.75 [2.8-4.14]$, and Δ DAS28 = $1.3 [0.37-2.72]$ in women, ($p = 0.04$). Analyzing the X-ray effect after 48 weeks of RTX treatment: the absence of progression in terms of the total score in 83.33% of men and 60.98% of women; there was no progression in narrowing of the joint space in 83.33% of men and 65.85% of women, noteworthy that the account of erosion practically reaches statistical significance - inhibition of destruction in 100% of men and 74.31% of women ($p = 0.06$).

Conclusion: Thus, having analyzed the clinical and antidestructive effects of RTX therapy depending on gender, we can conclude that the effect is significantly