Background: Fatigue is a significant issue in rheumatoid arthritis (RA) with no accepted evidence-based management guidelines. Several studies suggested that biologic Disease Modifying Anti-Rheumatic Drugs (bDMARDs) have a direct role on fatigue in RA.

Objectives: This study aimed to compare fatigue between patients treated with bDMARDs and conventional synthetic Disease Modifying Anti-Rheumatic Drugs (cs DMARDs).

Methods: We conducted a longitudinal study including patients with RA (ACR/EULAR 2010). Patients with other acute or chronic diseases that may induce fatigue (such as cancer, infection or depression) were excluded. Demographic data and the following disease-related parameters were collected: pain Visual Analog Scale (VAS), Global Assessment of Physical Functioning (P/F), tender joint count (TJC), swollen joint count (SJC), Erythrocyte Sedimentation Rate (ESR), C-Reactive Protein (CRP), Disease Activity Score 28 (DAS28), Health Assessment Questionnaire (HAQ) and DMARDs used. Fatigue was assessed at baseline (T0), at 6 months (T6) and at 12 months (T12) using the Functional Assessment of Chronic Illness Therapy – Fatigue (FACIT-F) which is a short 13-item questionnaire validated in RA. The score FACIT-F ranges between 0 and 52. Fatigue was considered mild if the FACIT-F score was ≥40, moderate if 20< FACIT-F<40 and severe if 0< FACIT-F<20.

Results: We included 100 RA patients (84 women and 16 men) with a mean age of 49.5±10 years old (18-66). The mean disease duration was 8.7±3 years (1-36). The mean pain VAS was 4.9±0.9 (0-10) and the mean GPA was 47.8±0.8 (0-100). The mean TJC and SJC were 5.3±0.6 and 1.0±0.9 respectively. The mean levels of ESR and CRP were 38.1±10.2 and 10.8±6 mg/l respectively. The mean DAS28 ESR was 3.68 [1.90-8.33] and the mean HAQ score was 0.90 [0-2.75].

Eighty-three percent of patients used csDMARDs: Methotrexate (n=96), sulphasalazine (n=28), leflunomide (n=21), and hydroxychloroquine (n=12). bDMARDs were prescribed in 17% of patients: Rituximab (n=10), Infliximab (n=10), and Etanercept (n=9).

At baseline, the mean FACIT-F score was 27.1 [0-51]. Moderate fatigue was noted in 57% of cases and severe fatigue in 26% of cases. Patients on csDMARDs had a lower FACIT-F score when compared to patients on bDMARDs (26.89 versus 0.00; p=0.001).

The mean FACIT-F score was 27.41 in bDMARDs patients versus 29.80 in csDMARDs patients (p=0.210) after 4 weeks. The mean delta FACIT-F was 2.18 in bDMARDs patients versus 2.73 in csDMARDs patients between T6 and T0 (p=0.815), and 3.94 versus 7.2 respectively between T12 and T0 (p=0.807).

When considering all patients, a significant positive correlation was noted between delta FACIT-F and delta DAS28 at T6 (r=0.418, p<0.001) and at T12 (r=0.393, p<0.001).

Conclusion: RA patients treated with bDMARDs didn’t show significant improvement of fatigue in comparison with those treated with csDMARDs. Further studies are needed to determine if biologics improve fatigue, and whether the improvement results from a direct action on fatigue or indirectly through reduction in disease activity.

Disclosure of Interests: None declared

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