Variables correlation with qualissex score P value

Variation of DAS 28 CRP 0.33 0.01

Variation of DAS 28 VS 0.27 0.04

Variations of asthenia 0.31 0.03

Variation of pain 0.13 NS

Variations of SF 36 physical score -0.21 NS

Variation of SF36 mental score -0.3 0.03

Conclusions: This first study of sexual health of RA patients in a randomized trial demonstrates an improvement in sexual health in patients responders to a biologic treatment. Improvement of sexual health was associated with a decrease in disease activity and asthenia.

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SAT0176

CONTRIBUTION OF CD4+ T CELLS DECREASE ON CLINICAL RESPONSE TO RITUXIMAB IN RHEUMATOID ARTHRITIS

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Background: Rituximab (RTX) is approved for the treatment of rheumatoid arthritis (RA), but there is a large inter-individual variability in clinical response. A better response was previously associated with a decrease in CD4+ T cell counts [1, 2].

Objectives: This study aimed at analyzing the contribution of CD4+ T cell decrease in the clinical response in RA patients treated with RTX.

Methods: In this retrospective monocentric observational study, 52 patients were assessed. All patients had received 2 infusions of 1000 mg of RTX 2 weeks apart. Disease activity score in 28 joints (DAS28) was used as clinical endpoint. RTX serum concentrations, peripheral blood CD4+ counts, and DAS28 were measured before and after each RTX infusion and at 3, 6 and 9 months after last infusion. A population PK-PD model, including a physiological turnover and direct response model, was developed to estimate the probability of CD4+ counts decrease. The turnover model was used to describe the effect of RTX on CD4+ T-cell counts, and the direct model was used to describe both RTX and CD4+ T cell count effect on DAS28.

Results: The probability of CD4+ counts decrease was estimated at 0.75. Patients with a CD4+ decrease had a higher Δ DAS28 than the patients without CD4+ decrease, with a maximal Δ DAS28 of -1.34 and -0.64 in patients with and without CD4+ cell decrease, respectively. Moreover, at M6, patients with CD4+

cell decrease had a median DAS28 of 3.5 (IQR: 2.7 – 4.4), among them 39.5 % with low disease activity (DAS28 $\leq$ 3.2) and 22.3 % in remission (DAS28<2.6). At the same time point, median DAS28 of patients without CD4+ cell decrease was 4.3 (IQR: 3.5 – 5.1), among them 17.7 % with low disease activity, and 8.6 % in remission (see Figure 1 Box plot of DAS28 in patients with and patients without CD4+ decrease.).

Conclusions: This is the first study to quantify the contribution of CD4+ T cell decrease to the clinical response in RA patients treated with RTX.

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SAT0177

REAL-WORLD INTERRUPTIONS IN JANUS KINASE INHIBITOR THERAPY OBSERVED AMONG BIOLOGIC-NAÏVE AND BIOLOGIC-EXPERIENCED RHEUMATOID ARTHRITIS PATIENTS

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Background: Orally administered janus kinase inhibitors (JAKi) can be used to treat moderate-to-severe rheumatoid arthritis (RA).

Objectives: Examine real-world patterns of use, including interruptions in therapy and switching, in biologic-naïve and biologic-experienced patients with RA newly prescribed a JAKi.

Methods: A retrospective analysis was performed using healthcare claims data from the Optum Research Database. Commercial and Medicare Advantage patients aged $\geq$ 18 years were included with: $\geq$ 1 pharmacy claim for a JAKi 01 January 2012–29 February 2016 (index date = date of first claim); continuous enrollment in health plan for $\geq$ 12 months before and 13 months post-index; and $\geq$ 1 claim with a RA diagnosis (ICD-9 = 714.0x; ICD-10 = M05* or M06*) during baseline or on the index date. A variable length pre-index period to 01 January 2006 was implemented to capture certain measures. Persistence was defined as the time from index prescription fill to earliest gap in fills $\geq$ 30 days (interruption) or switching to a biologic disease-modifying antirheumatic drug (bDMARD). Patients were classified as being: persistent with the index therapy for the full year, switching before interruption, switching after interruption, interruption with restart, and interruption without restart (discontinuation). Patients were assigned to two groups: those with and without $\geq$ 1 claim for bDMARD treatment during the variable length pre-index period (biologic-experienced and biologic-naïve). Data were expressed as % or mean (SD). Sensitivity analyses assessed prescription fill gaps $\geq$ 90 days.

Results: Of 1059 patients who met the inclusion criteria, 80.2% were biologic-experienced, 81.8% female, mean age 56.2 (11.8) years. More biologic-naïve patients (48.6%) had Medicare Advantage coverage than biologic-experienced (22.3%). For the primary analysis, 72.4% of patients were not persistent for the 1-year following initiation of a JAKi, with 39.1% not persistent beyond 90 days (figure 1). Among non-persistent patients, 42.4% interrupted and restarted a JAKi (time from index to restart, 168.9 [83.8] days), 16.8% switched to a bDMARD before interruption, 13.3% switched after interruption and 27.5% discontinued bDMARD and JAKi therapy (time to discontinuation, 148.4 [117.6] days). More biologic-naïve than biologic-experienced patients neither initiated a bDMARD nor restarted a JAKi after interruption (44.2% vs 23.3%, respectively; $P<0.001$). For the sensitivity analysis, 52.6% were non-persistent for the full year.