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AB0262

SEARCHING PREDICTORS OF ABATACEPT EFFICACY IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: Biologics have revolutionised the treatment of rheumatoid arthritis (RA). Several types of biologics are used in clinical practice, one of them is the blocker of T cells co-stimulation – abatacept (ABA). The search for predictors of biologics efficacy is an important issue in current rheumatology practice.

Objectives: To identify predictors of ABA efficacy based on the analysis of various serum biomarkers changes.

Methods: 44 RA pts with a history of previous DMARDs and biologics failures and 16 healthy donors as controls were included in the study. The majority of pts were females, RF-positive – 80%, anti-CCP-positive – 79.5%, mean age 49.6 ±13.9 years, median disease duration 21.4³ years, with high RA activity (mean DAS28=5.2±0.8). Enzyme-linked immunoassay was used to measure serum concentrations of biomarkers IL-1β, IL-6, IL-17AF, TNF-α, VEGF-A, IP-10, YKL-40, MMP3 at baseline and after 6 months of ABA therapy. Disease activity was assessed every 3 months using DAS28. ABA were administered IV according to standard schedule.

Results: RA pts had significantly increased levels of IL-6 (2.4 [1.1–6.4] vs 0.7 [0.62–1.0] pg/ml, p=0.0002), YKL-40 (97^{68,4–97,9} vs 64^{52,4–107,5} pg/ml, p=0.03), and IP-10 (21^{12,9–49,8} vs 14^{9,2–15,2} pg/ml, p=0.005) compared to the control group. By the 6-th month ABA significantly reduced the levels of IL-6 up to 1.29 [0.9–2.2] pg/ml, p=0.0006 and IP-10 – to 14^{7,5–28} pg/ml, p=0.007, as well as MMP3 and RF from 30.1^{13–82} to 10 [7.4–55] pg/ml, p=0.0003 and from 218 [9.6–187] to 159 [9.7–155] pg/ml, p=0.02, respectively. There was a significant correlation between the decrease of IL-6 (r=0.5) and IP-10 (r=0.32) levels and decrease of DAS28 scores (p<0.05). A trend to a more pronounced reduction in disease activity was identified in anti-CCP-positive and anti-MCV-positive pts. By EULAR criteria the percentage of no-responders among anti-CCP-negative and anti-MCV-negative was almost two times higher as compared to antibodies-positive pts, i.e., 27.2% vs 16% and 26.7% vs. 14.8%, respectively, although the difference failed to reach statistical significance. However, by 6 months the percentage of pts with high disease activity among anti-MCV-negative pts were significantly higher than among anti-MCV-positive (20% and 0%, p=0.03, respectively). Higher baseline IL-6 (p=0.03) and YKL-40 (p=0.02) levels were registered among non-responders to ABA therapy.

Conclusions: ABA therapy led to a significant reduction in concentrations of pro-inflammatory IL-6 and IP-10 cytokines, as well as of MMP3 and RF. The decrease of IL-6 and IP-10 levels significantly correlated with the decrease of RA activity. There was a trend towards more pronounced reduction of disease activity in anti-CCP-positive and anti-MCV-positive pts. High baseline IL-6 and YKL-40 levels were significantly more frequently registered among non-responders. Therefore, anti-MCV-negativity, high baseline levels of IL-6 and YKL-40 could be used as predictors of insufficient ABA efficacy in this category of pts. A small sample of pts is the major limitation of this study, requiring future studies.

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AB0263

TREND IN TUBERCULOSIS INFECTION INCIDENCE IN RHEUMATOID ARTHRITIS IN SPAIN: AN OBSERVATIONAL COHORT STUDY (1999–2015) (TREND-AR STUDY)

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Background: There have been important changes in the management of rheumatoid arthritis (RA) in the last 20 years, due to the incorporation of new drugs. An increase in the incidence of tuberculosis infection (TB) has been observed

because of reactivation of latent TB with the use of new treatments. Adequate prevention measures have been implemented.

Objectives: To analyse the incidence and trend of hospital admissions for TB in patients with RA in Spain during the period between 1999 and 2015.

Methods: This is a retrospective population based study. We analysed a national administrative database that includes a Minimum Basic Data Set (MBDS) of hospital admissions of patients with RA. Period: 1999 to 2015. The TB cases were identified by the presence in primary and secondary diagnosis of ICD 9 codes. The population at risk was estimated through the population census of the National Institute of Statistics, with an estimated prevalence of RA of 0.5%. The crude and adjusted rates of TB were calculated. The trend was analysed using Generalised Linear Models (GLM) using the year variable as the analysis variable.

Results: Among all the admissions of patients with AR (338.343), 1209 (0.35%) were due to TB, 665 (55%) in women and 544 (44.9%) in men. The mean age was 63.25 (SD 13.7). The mean of the Charlson index was 1.84 (SD 1.45), in women 1.63 (SD 1.3) and in men 2.09 (SD 1.59) (p<0.001).

There were a total of 94 (7.8%) deaths during admission (6.9% in women, 8.8% in men, p=0.231). The TB age-adjusted rate during the study period was 42.78/100.000 inhabitants RA-year (28.2 in women and 100.74 in men). The TB age-adjusted rate in both sexes remains without significant changes between 1999 and 2015 (IRR 0.225; CI95% 0.985–1.025). During the period 1999–2011 an increase of the incidence is observed, while in the period 2011–2015 it is observed a decrease of the same (fig 1).

Abstract AB0263 – Figure 1

Conclusions: Conclusion: In Spain, in patients with RA, the income rate in relation to tuberculosis increased from 1999 to 2010 and subsequently decreased in the period from 2011 to 2015.

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AB0264

TREND IN HOSPITAL ADMISSIONS IN RHEUMATOID ARTHRITIS IN SPAIN: A NATIONAL OBSERVATIONAL COHORT STUDY (1999–2015) (TREND-AR STUDY)

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Background: There have been significant changes in the management of rheumatoid arthritis (RA) during the past 20 years. The potential impact of these strategies on hospitalisation trend is unknown.

Objectives: To analyse the incidence and trend of hospital admissions in patients with RA in Spain from 1999 to 2015.

Methods: This is a population based study. We analysed a national administrative database that includes a Minimum Basic Data Set (MBDS) of hospital admissions of patients with RA during the period 1999–2015.

The admission cases in patients with RA were identified by the presence in primary and secondary diagnosis of the ICD9 codes (714.0–714.9). The population at risk was estimated through the population census of the National Institute of Statistics, with an estimated prevalence for RA of 0.5%, with crudes and adjusted admission rates being calculated. The trend was analysed using Generalised Linear Models (GLM).

Results: There were a total of 3 38 343 hospital admissions in RA patients during the study period, accounting for a total of 1 76 097 patients (1 17 985 women and 58 112 men). The mean age at admission was 68 years (67.8 in women and 68.5