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PREDICTORS OF CLINICAL EFFICACY OF ABATACEPT IN RHEUMATOID ARTHRITIS: DATA FROM A LARGE OBSERVATIONAL STUDY

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Background: Abatacept (ABA) is a biologic DMARD (bDMARD) used to treat rheumatoid arthritis (RA) since 2006. There are limited data on real life efficacy of ABA, and on predictors for ABA treatment response.

Objectives: Objectives: To compare the effectiveness of ABA in the treatment of RA between bionative patients and patients with previous bDMARDs and to investigate predictors of clinical response to ABA.

Methods: In an observational cohort study, based on data from a large national quality register database, patients with RA diagnosis who initiated treatment with ABA between April 2006 and November 2017 were included. LUNDEX corrected response was defined as the fractions remaining on the drug and achieving the outcome among all who initiated treatment (1). Clinical response at 6 and 12 months was evaluated by means of LUNDEX corrected EULAR (L-EULAR) Good Response and LUNDEX corrected HAQ response (change of ≥ 0.3 from baseline) (L-HAQ). Predictors for clinical response were investigated using logistic regression, with significance based backwards selection of variables for the final multivariate model. The study was supported by an unrestricted grant from Bristol Myers-Squibb.

Results: 2716 RA patients were included in the study. More patients in the bionative population achieved L-EULAR Good Response and L-HAQ response at 6 and 12 months than bDMARDs experienced patients (Fig. 1a and 1b). Male sex, no previous bDMARD exposure and a low HAQ score were independent predictors of L-EULAR Good Response at 6 and 12 months (Table 1). Lack of previous bDMARD exposure also predicted L-HAQ response at 6 and 12 months. There was a positive associations between baseline HAQ and L-HAQ response at 6 months (multivariate adjusted odds ratio 1.73; 95% CI 1.46-2.05).

Conclusion: In patients with RA, response rates for treatment with abatacept were substantially higher in bionative patients than in those with previous bDMARD experience. Male sex also predicted LUNDEX corrected EULAR good response to abatacept. Patients with extensive disability, measured by HAQ, were less likely to remain on treatment and achieve a EULAR Good Response, but more likely to have significant HAQ improvement.

REFERENCE

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Table 1. Significant predictors of Lundex EULAR good response. Bivariate and adjusted analysis. Odds ratios (95% CI).

Predictors	6 months		12 months	
	Bivariate	Multivariate	Bivariate	Multivariate
Male sex	2.11 (1.41-3.13)	2.28 (1.45-3.57)	2.46 (1.71-3.54)	2.14 (1.44-3.19)
Bionative (Reference: ≥ 2 bDMARDs)	4.00 (2.60-6.15)	3.59 (2.25-5.72)	4.45 (2.95-6.71)	4.29 (2.77-6.65)
Current Methotrexate	*	**	1.46 (1.04-2.06)	**
HAQ score (per SD)	0.64 (0.52-0.77)	0.75 (0.61-0.93)	0.65 (0.54-0.78)	0.74 (0.61-0.90)
Disease duration (per SD)	0.79 (0.65-0.96)	**	0.72 (0.59-0.87)	**
Age (per SD)	0.76 (0.65-0.91)	0.79 (0.65-0.96)	*	**
Current Glucocorticoids	0.59 (0.42-0.83)	0.59 (0.40-0.86)	*	**
Intravenous ABA (Reference: Subcutaneous)	0.53 (0.38-0.75)	**	0.70 (0.51-0.98)	**

*= not significant for this outcome

**= not included in the final model.

A

Lundex corrected EULAR good response

B

Lundex corrected HAQ response

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