

Increased ability to meet occupational, home or leisure requirements in patients starting biologic agents

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Background & Objective

During the course of disease, many patients with rheumatoid arthritis (RA) become increasingly unable to fulfill their daily life tasks. For employed patients, this is reflected in the number of days of sick-leave or early retirement. For patients not employed this is less clear.

Our objective was to evaluate the impact of RA on limitations in role fulfillment in both employed and unemployed patients. Further we were interested in the impact of the start with a biologic or non-biologic DMARD treatment.

Methods

We used data from the German biologics register RABBIT. More than 9,550 patients were enrolled until June 2011 with starting a biologic (BIOL) or conventional DMARD treatment (CON) after DMARD failure.

At all time-points of the regular assessments, patients also give information about their ability to meet usual occupational, home or leisure requirements during the last four weeks.

The propensity score method was applied to adjust for differences in the baseline status between BIOL and CON patients.

The outcome after 6 months was compared between the treatment groups within propensity score strata after adjustment for further differences in the baseline status by means of multiple logistic regression.

Conclusion & Perspectives

Real-world patients who start treatment with biologic agents have significant constraints in fulfilling their daily requirements. After six months, there is considerably less limitation in role fulfillment, especially in those patients who receive their first biologic agent.

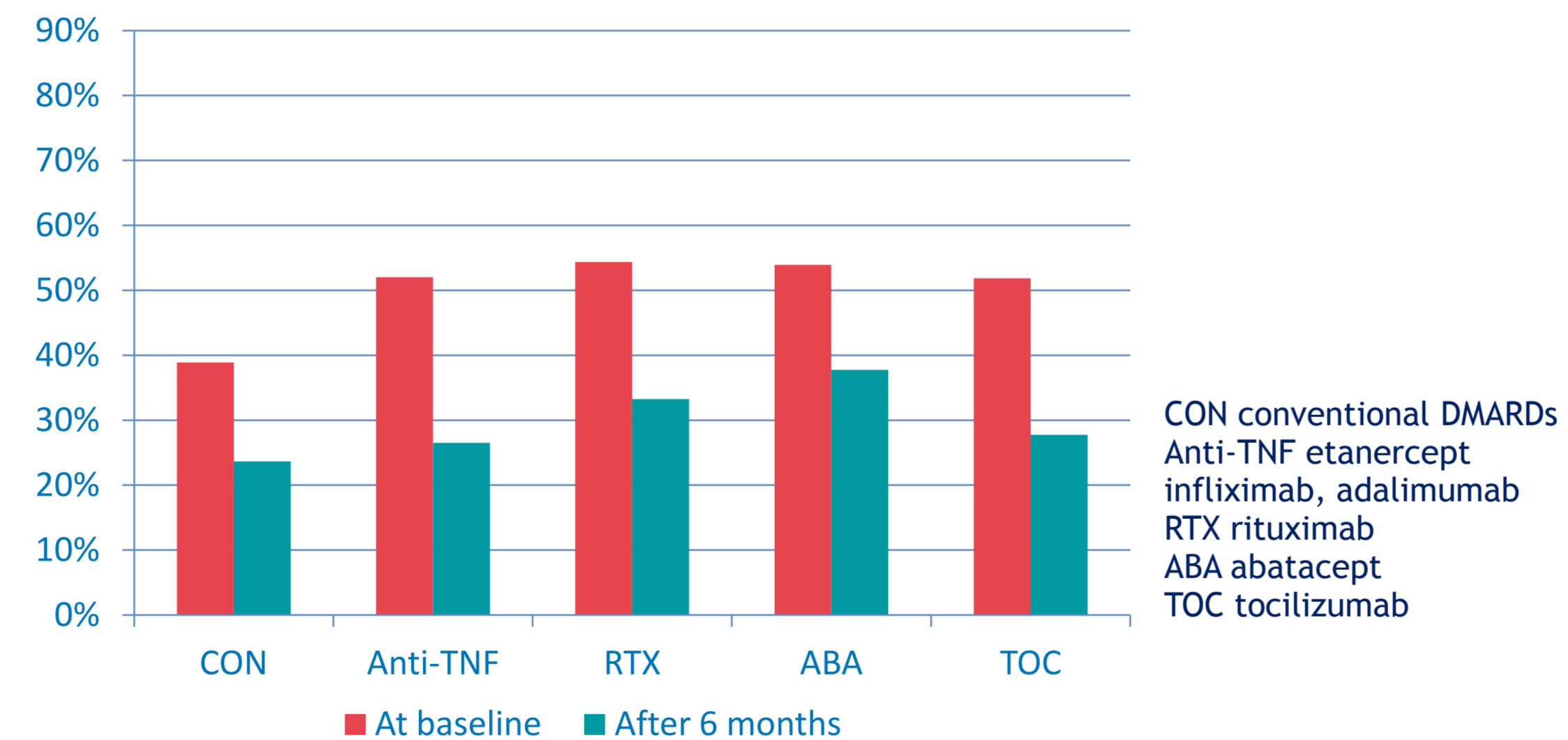
Results

7,176 patients had at least 6 months of follow-up and were included in the analysis. 27% of patients starting a biologic treatment and 16% in the DMARD control group had not been able to fulfill their daily activities on more than 14 days within the last 4 weeks before enrolment. All new treatment starts (DMARDs and biologics) increased the ability to meet occupational, home or leisure demands.

Significant risk factors to remain limited in role fulfillment after 6 months were baseline limitations in activities, fatigue, comorbidities, and previous failure of a biologic treatment.

Adjusted for these risk factors, the improvement was significantly higher for patients treated with biologics. The effect was slightly stronger in anti-TNF treated patients than in patients treated with other biologic agents.

Limitations in role fulfillment on at least 7 days per month



Risk for disability on at least one day after 6 months

Effect	OR	95% Wald Confidence Interval	
BIOL vs. CON	0.76	0.66	0.89
Higher functional ability	0.98	0.97	0.98
Hypertension	1.14	1.00	1.30
Fatigue	1.07	1.05	1.09
Comorbidity in general	1.20	1.05	1.37
Previous treatment with biologics	1.51	1.30	1.75
Limitations at baseline			
Limitations on < 7 vs. no day	2.73	2.36	3.17
Limitations on 7-14 vs. no day	3.95	3.35	4.65
Limitations on > 14 vs. no day	3.87	3.24	4.63

Risk for long term disability on 7 days or more after 6 months of treatment

Effect	OR	95% Wald Confidence Interval	
BIOL vs. CON	0.82	0.69	0.98
Higher functional ability	0.98	0.97	0.98
Hypertension	1.10	0.96	1.26
Fatigue	1.08	1.05	1.11
Comorbidity in general	1.05	0.90	1.23
Previous treatment with biologics	1.33	1.14	1.55
Limitations at baseline			
Limitations on < 7 vs. no day	1.45	1.18	1.78
Limitations on 7-14 vs. no day	2.62	2.14	3.19
Limitations on > 14 vs. no day	3.64	2.96	4.47

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