Relapse rates during the first year after withdrawal of anti-TNF treatment because of remission

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Conclusion

In this group of RA patients with severe, long-standing disease and a considerable number of previous DMARD failures, withdrawal of anti-TNF agents because of remission was rare. Nevertheless, our data suggest, there is an appreciable proportion of this small subgroup of patients who do rather well without any new anti-TNF treatment for at least 6 or 12 months of follow up.

Background

To induce sustained remission is one of the main objectives in the treatment of rheumatoid arthritis (RA) today. Using the data of the German biologics register RABBIT (**r**heumatoid **a**rthritis – o**b**servation of **bi**ologic **t**herapy) we found a significantly higher remission rates in RA receiving biologics compared to DMARDs. However, the absolute rates remained low (1).

In the following we used data of this German prospective cohort study RABBIT to determine the time to relapse in RA patients withdrawn from anti-TNF treatment because of remission.

Patients and methods

Patients

- enrolled into RABBIT between May 2001 and October 2005
- new prescription of etanercept (ETA), adalimumab (ADA) or infliximab (INF) at enrollment to this prospective cohort study of RA patients in routine care

Assessments

- treatment details with biologics or DMARDs
- clinical status including disease activity score DAS28

Outcome

- frequency of treatment termination because of remission
- time to new start of an anti-TNF treatment
- time to relapse (new start of anti-TNF or DMARD treatment, or to exceed DAS28 > 3.8, or to increase in the DAS28 > 1.2)

Statistical method

Kaplan Meier method

Results

Among 3091 patients enrolled, 1214 received ETA, 1283 ADA and 594 received INF (Tab. 1).

	All patients
n	3091
Age	53.8 ± 12
Disease duration (years)	11.7 ± 9.4
Swollen joint count (0 – 28)	9.1 ± 6.1
ESR mm/hour	35.3 ± 24
Disease activity score (DAS28)	5.8 ± 1.3
FFbH (Percent of full function 0 - 100)	56.7 ± 23
Number of previous DMARDs	3.6 ± 1.4

Tab. 1: Patients' characteristics at baseline

The mean DAS28 improved from 5.8 at baseline to 4.1, 4.0 (SD: 1.5) at 6 and 12 months respectively. 16% of the patients achieved a DAS28 < 2.6 (DAS28 remission) at 12 months.

However, treatment termination because of remission was rare. It was observed in 31 patients only, corresponding to a rate of 1.1%

	At baseline	At withdrawal
mean ± SD		
DAS28	5.3 ± 1.2	2.7 ± 1.3
Swollen joint count (0-28)	8.7 ± 6.4	1.0 ± 1.5
ESR mm/hour	28.6 ± 17	13.1 ± 10
FFbH (Percent of full function 0-100)	67.1 ± 20	80.5 ± 18
Low disease activity (%)		
DAS28 < 2.6	0	54.8
No swollen joints	6.5	54.8
ESR < 20mm/h (m) < 30mm/h (f)	51.6	87.1

Tab.2: Characteristics of patients withdrawn because of remission (n=31)

at 12 months. Eight (13/31) patients had a disease duration ≤ 2 (≤ 5) years, eight a disease duration ≥ 10 years. At withdrawal, 16% did not receive any DMARD, 58.1% continued taking methotrexate (MTX), and 16% took other DMARD.

The cumulative relapse rates at 3, 6 and 12 months were 30.2%, 57.7% (95%CI: 39% - 78%) and 67.1% (48%-85%) (Fig.1). All patients without relapse at 12 months (n = 6) had continued treatment with MTX or leflunomide. Only one of these 6 patients had a disease duration <= 2 years.

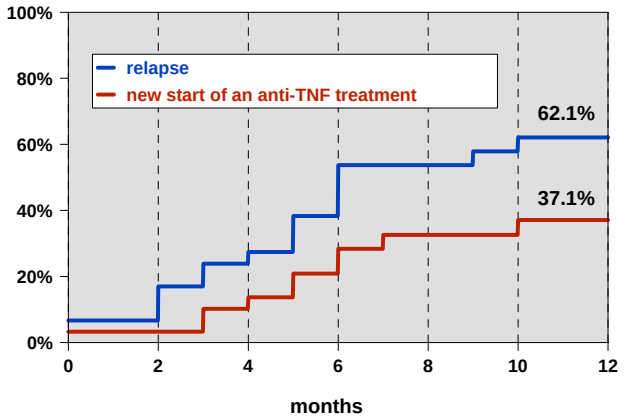

Fig. 1 Time to relapse or restart of an new treatment

(1) Listing J, Strangfeld A, Rau R, Kekow J, Gromnica-Ihle E, Klopsch T, Demary W, Burmester GR, Zink, A: Clinical and functional remission: even though biologics are superior to conventional DMARDs overall success rates remain low. Arthritis Research & Therapy 2006,8:R66

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