A190 RETREATMENT OF RHEUMATOID ARTHRITIS PATIENTS WITH 1×1000 MG RITUXIMAB RESULTS IN SUSTAINED CLINICAL RESPONSE IN CLINICAL RESPONDERS INITIALLY TREATED WITH 2×1000 MG RITUXIMAB

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Background Treatment with rituximab may reduce disease activity in patients with rheumatoid arthritis (RA). The current dosing schedule of rituximab 2×1000 mg has been shown to induce and maintain a clinical response in initial responders, and is also protective against progression of joint destruction. Recently, the treatment schedules of 2×1000 and 2×500 mg rituximab were compared side-by-side in early active RA patients.¹ It was shown that only initial treatment with 2×1000 mg rituximab resulted in statistically significant protection against progression of structural damage, whereas 2×500 mg and 2×1000 mg resulted in comparable clinical efficacy. Exploratory analysis suggested that retreatment with 2×500 mg rituximab after 6 months might be protective in terms of inhibition of structural damage. Induction therapy with 2×1000 mg rituximab followed by retreatment with 2×500 mg or 1×1000 mg after 6 months could be a very cost effective approach.

Objective To investigate if clinical response induced by treatment of RA patients with 2×1000 mg rituximab can be sustained following retreatment after 24 weeks with 1×1000 mg rituximab.

Methods 11 patients with RA, who were previous tumour necrosis factor inadequate responders with a good or moderate response to initial treatment with 2×1000 mg rituximab according to the European League Against Rheumatism response criteria, were retreated after at least 24 weeks with 1×1000

Figure 1 (A) Mean change from baseline ($\pm$ SD) in DAS28 at every study visit. The red line represents the level of the mean DAS28 at baseline: 4.29. (B) DAS28 at every study visit. Each line represents the follow-up of one patient. DAS28, Disease Activity Score of 28 joints; RTX, rituximab.

mg rituximab when their Disease Activity Score of 28 joints (DAS28) was ≥ 2.6 . Patients were followed-up for 48 weeks with monthly assessment of the DAS28. At baseline and at week 48, radiographs of hand and feet were taken and the change in Total Van der Heijde Modified Sharp Score (TvdHS) was determined.

Results Nine out of 11 patients completed the 48 weeks of follow-up, 2 patients were lost to follow-up after 24 weeks. The mean DAS28 did not reach the baseline level at any visit, meaning that the clinical response was sustained (figure 1A,B). The mean change in TvdHS after 1 year was $-0.60 (\pm 2.9)$, indicating there was no progression of structural damage after retreatment with 1×1000 mg rituximab on the group level. 3 out of 11 patients did show progression of structural damage: two patients showed an increase in TvdHS of two points in 1 year and one patient an increase of three points in 6 months.

Conclusion The clinical response and the inhibition of structural damage induced by 2×1000 mg rituximab can be sustained in most RA patients by retreatment with 1×1000 mg rituximab.

REFERENCE

1. Tak PP, Rigby WF, Rubbert-Roth A, *et al*. Inhibition of joint damage and improved clinical outcomes with rituximab plus methotrexate in early active rheumatoid arthritis: the IMAGE trial. *Ann Rheum Dis* 2011;**70**:39–46.