EFFICACY AND SAFETY OF OCRELIZUMAB IN PATIENTS WITH RELAPSING-REMITTING MULTIPLE SCLEROSIS: WEEK 96 RESULTS OF A PHASE II, RANDOMISED, MULTICENTRE TRIAL

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Background: Ocrelizumab (OCR) is a humanised mAb targeting CD20 on B cells. In a phase II trial in RRMS, OCR led to a reduction of Gd^+ lesions (primary endpoint) by ≥89%, and of annualized relapse rate (ARR) by ≥73% at wk 24, compared with placebo. Here we report the wk 96 data. **Methods:** At baseline, 220 RRMS patients (pts) had been randomised 1:1:1:1 to receive iv OCR (days 1, 15) for a total dose of 600 mg (A), 2000 mg (B), placebo (C), or open-label weekly IFNbeta-1a 30 ug im (D). At wk 24, 48 and 72 all pts were treated with OCR: groups A, C and D received 600 mg per cycle; group B received 1000 mg at wk 24 and 48, and switched to 600 mg at wk 72. **Results:** 183 pts completed the wk 96 treatment period. Efficacy: ARR was 0.18 [95% CI: 0.11-0.31] and 0.22 [0.13-0.35] for groups A and B for wks 0-96. In groups A and B, 67.3% and 76.4% had no relapses and no confirmed EDSS progression from wk 0-96 ("clinical disease activity free"); 78.2% and 80.0% of pts had been relapse-free. Only a small proportion of pts had 12 wk-confirmed EDSS progression at wk 96 (A: 12.7%; B: 7.3%; C: 13.0%; D: 9.3%). In an exploratory analysis, ARRs were reduced from wk 24-96 in pts switched from placebo to OCR (group D) from 0.64 to 0.20 [0.12-0.33], and in those switched from IFN to OCR (group C) from 0.36 to 0.16 [0.09-0.28]. At wk 96 there were no Gd-enhancing T1 lesions in groups A-D. In group B, one pt had 1 newly enlarging T2 lesion and another had 2 new T2 lesions. Total brain volume was reduced by 1.1/1.2% in Groups A/B, from wk 12-96. Safety: There was no imbalance in the total number of serious adverse events across all groups over 96 wks. Serious infection rates were similar for groups A and B (1.97 [0.49-7.98] and 1.93 [0.48-7.71] events/100 pt-yr) and did not increase with OCR retreatment. Infusion-related reactions were more common after the 1st OCR infusion, but decreased to placebo levels in subsequent infusions. **Conclusions:** OCR effect of reducing Gd-enhancing lesions and ARR was well maintained over 96 wks. Switching from IFN or placebo to OCR resulted in similar sustained benefits.