Baseline Features of Patients With RMS in Ocrelizumab Trials OPERA I and OPERA II

Written by Jaye Summers

Ocrelizumab is a recombinant humanized monoclonal antibody that selectively depletes CD20+ B cells, which have been implicated in the pathogenesis of multiple sclerosis (MS) [Lehmann-Horn K et al. *Ther Adv Neurol Disor*. 2013]. Data from a phase 2 trial have suggested that patients with relapsing-remitting MS treated with ocrelizumab 600 or 2000 mg had significantly fewer gadolinium-enhancing lesions compared with placebo at 24 weeks ($P < .0001$, both comparisons) [Kappos L et al. *Lancet*. 2011].

Steven Hauser, MD, University of California San Francisco, San Francisco, California, USA, presented the demographic and baseline disease characteristics of patients from 2 international phase 3 studies of ocrelizumab—OPERA I [NCT01247324] and OPERA II [NCT01412333]—in a poster presentation.

Both multicenter randomized trials were double-blind, double-dummy, parallel-group studies investigating the efficacy and safety of ocrelizumab 600 mg administered by intravenous infusion every 24 weeks, compared with administration of subcutaneous interferon beta-1a (IFN-β-1a; escalated dose to 44 µg, 3 times per week) in patients with relapsing MS over 96 weeks. Entry criteria included a diagnosis of RMS using the 2010 revised McDonald criteria [Polman CH et al. *Ann Neurol*. 2011], an Expanded Disability Status Scale (EDSS) score of 0 to 5.5, and age of 18 to 55 years. Patients were required to have experienced ≥2 documented relapses within the last 2 years or 1 relapse in the last 1 year prior to screening (but not within 30 days prior to screening). Exclusion criteria included primary progressive MS, pregnancy, or a history of current primary or secondary immunodeficiency. Patients with a disease duration of ≥10 years and an EDSS score ≤2.0 at screening were also excluded. The primary end point was the annualized protocol-defined relapse rate at 2 years (96 weeks).

A total of 1656 patients were randomized to receive either ocrelizumab or IFN- β-1a in OPERA I (n=821) and OPERA II (n=835). The mean baseline age in both trials was 37 years; 66% of the patients were women; and approximately 90% were white. Patients had symptoms of MS for a mean duration of 6.5 years in OPERA I and 6.7 years in OPERA II; mean baseline EDSS scores were 2.77 (OPERA I) and 2.75 (OPERA II). Patients in both trials had experienced approximately 1.3 relapses in the year prior to randomization and 1.8 relapses in the 2 years prior to randomization. Magnetic resonance imaging assessments are shown in Table 1.

Table 1. Baseline MRI Characteristics in OPERA I and OPERA II

	OPERA I (n = 821)	OPERA II (n = 835)
No. of Gd^+ T1 lesions, mean ± SD	1.78 ± 4.69	1.87 ± 4.88
Categorical No. of Gd^+ T1 lesions, n (%)		
0	485 (59.7)	494 (59.8)
≥1	327 (40.3)	332 (40.2)
Volume of T2 lesions, median (minimum to maximum), cm^3	5.88 (0 to 83.2)	5.65 (0 to 96.0)
Normalized brain volume, cm^3		
Mean ± SD	1500.06 ± 85.86	1502.72 ± 91.55
Median (minimum to maximum)	1501.25 (1251.8 to 1736.5)	1507.92 (1202.7 to 1761.3)

Gd^+, gadolinium-enhancing; MRI, magnetic resonance imaging.
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To conclude, the results of these 2 studies are likely to provide relevant information regarding the efficacy and safety of ocrelizumab compared with IFN-β-1a in patients with relapsing multiple sclerosis.

REFLEXION Trial: Delayed Treatment of First MS Event Increases Time to CDMS

Written by Jaye Summers

Up to 85% of patients who eventually receive a diagnosis of multiple sclerosis (MS) will initially present with a first clinical demyelinating event (FCDE) [Freedman M. *Ther Adv Neurol Disord*. 2014]. If left untreated, up to 45% of patients will convert to clinically definite MS (CDMS) within 2 years [Kappos L et al. *Neurology*. 2006]. Results from the REFLEX trial [Comi G et al. *Lancet Neurol*. 2012] suggest that 2 different dosing frequencies of interferon beta-1a (IFN-β-1a) were able to significantly delay clinical relapses following an FCDE (IFN-β-1a once a week [$P=.0023$]; IFN-β-1a 3 times a week [$P=.0004$]) compared with placebo.