INTRAVITREAL AFLIBERCEPT FOR TREATMENT OF POLYPOIDAL CHOROIDAL VASCULOPATHY: THE PLANET STUDY

W.K. Lee¹, Y. Ogura², T. Iida⁴, S-J. Chen⁵, T.Y. Wong⁶, P. Mitchell⁸, E. Zhang³, S. Leal³, T. Ishibashi⁹

¹Ophthalmology, Seoul St. Mary’s Hospital Catholic Medical Center, South Korea
²Ophthalmology and Visual Science, Nagoya City University Graduate School of Medical Sciences, Japan
³Medical, Bayer Pharmaceuticals, Germany
⁴Ophthalmology, Tokyo Women’s Medical University, Japan
⁵Ophthalmology, Taipei Veterans General Hospital, Taiwan
⁶Ophthalmology, Singapore National Eye Centre, Singapore
⁷Ophthalmology, Duke-NUS, National University of Singapore, Singapore
⁸Ophthalmology, University of Sydney, Australia
⁹Ophthalmology, Kyushu University Hospital, Japan

PURPOSE: To evaluate the efficacy and safety of intravitreal aflibercept (IVT-AFL) compared with IVT-AFL plus rescue photodynamic therapy (PDT) in patients with polypoidal choroidal vasculopathy (PCV).

METHODS: 52-week, randomised, double-masked, sham-controlled Phase 3b/4 study conducted primarily in Asia. All patients received 3 monthly IVT-AFL 2 mg; at Week 12 (W12), patients were randomised 1:1 to IVT-AFL 2 mg plus sham PDT (IVT-AFL monotherapy) or IVT-AFL plus active rescue PDT (patients qualifying for rescue treatment). Primary endpoint was mean change in best-corrected visual acuity from baseline to W52.

RESULTS: 333 patients were recruited and 318 were randomised (full analysis set). Baseline demographics were similar between groups. IVT-AFL monotherapy was noninferior to IVT-AFL plus rescue PDT for the primary endpoint (10.7 vs 10.8 letters, respectively; 95% CI [–2.9, 1.6]) at W52. The vast majority of patients in the IVT-AFL monotherapy and IVT-AFL plus active PDT groups did not require rescue therapy (87.9% vs 85.7%, respectively; P=0.84) and received only IVT-AFL 8-weekly after 3 monthly doses. The proportion of patients without active polyps (81.7% vs 88.9%, respectively) and complete regression (38.9% vs 44.8%, respectively) was similar in both groups at W52. The most common ocular adverse events were conjunctival haemorrhage (IVT-AFL monotherapy, 5.1%) and dry eye (IVT-AFL plus active PDT, 5.6%). CONCLUSIONS: IVT-AFL monotherapy, without the need for rescue PDT, was an effective treatment for 85% of patients with PCV; more than 80% having no signs of polyp activity at W52.