Re: Oishi et al.: LAPTOP study: a 24-month trial of verteporfin versus ranibizumab for polypoidal choroidal vasculopathy (Ophthalmology 2014;121:1151-2)

Dear Editor:

In a recent article, Oishi et al.1 discussed the 24-month results of the Ranibizumab (Lucentis) And Photodynamic Therapy On Polypoidal choroidal vasculopathy (LAPTOP) study, and reported that patients with polypoidal choroidal vasculopathy (PCV) who were randomized to the ranibizumab arm experienced a gain in visual acuity (VA), while those in the photodynamic therapy (PDT) arm did not show improvement in VA.

When discussing the various treatment options for PCV, it is important to consider combination therapy with ranibizumab and PDT. The EVEREST study2 was a randomized, controlled trial where patients were randomized among 3 treatment arms. The greatest improvement in VA occurred in the group that received combination therapy with both verteporfin PDT and ranibizumab, followed by the ranibizumab monotherapy group, and then the PDT monotherapy group.2 The differences in mean change of VA among the 3 treatment arms, however, were not significant at the study endpoint, possibly because the EVEREST study was not sufficiently powered to detect a significant difference in VA. In addition, the final study visit occurred at 6 months, and it is possible that more obvious differences in VA outcomes may have been observed if the patients had been followed for a longer duration. Therefore, we are in full agreement with the authors that further randomized, controlled trials comparing the various treatment options for PCV, including combination therapy of PDT and anti-vascular endothelial growth factor agents, are required.1 This task is among the objectives of the EVEREST II study, which is currently under way.

In the evaluation of the efficacy of various treatment modalities for PCV, it is also important to consider the rates of polyp closure. We are curious to know whether there were any differences in either the rates of polyp closure or recurrences of PCV lesions between the 2 treatment arms of the LAPTOP study at 24 months. In the EVEREST study, the rates of polyp closure for both the combination therapy group, as well as the PDT monotherapy group were significantly higher than the ranibizumab monotherapy group (77.8% vs 71.4% vs 28.6%, respectively).2 Studies have shown that previously quiescent polyps may bleed, and the precipitating factors currently remain unknown. In some patients, the hemorrhage can be quite significant, with resultant deleterious effects on the patient’s vision.3,4

The authors reported that in the PDT arm, approximately 15% of patients experienced >6 lines of vision loss, whereas others showed improvement in vision, and commented that the former group might have affected the overall VA outcomes.1 Other studies have also demonstrated considerable variability in the visual outcomes of patients with PCV, possibly owing to the existence of subtypes of the disease.5 It would be interesting to know whether the patients who had significant visual loss experienced severe submacular bleeding with resultant scarring, and whether the number of PDT treatments varied between those who lost vision compared with the patients who gained vision. Because repeated PDT may result in damage to the retina and choroid, a possible option to consider, especially for recurrent PCV, is reduced fluence PDT.

In summary, we agree with the authors that further studies on the treatment options for PCV, as well as the optimal treatment intervals, are required. We would also urge ophthalmologists to consider the rates of polyp closure when assessing the efficacy of these treatment options.

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Financial Disclosure(s): C.S.T.: Research funding –National Healthcare Group Clinician Scientist Career Scheme Grant (grant no. CSCS/12005); Travel support—Bayer, Heidelberg Engineering, Novartis. Drs Ngo and Lim do not receive financial support. The sponsor or funding organization had no role in the design or conduct of this research.

References