Anti-vascular endothelial growth factor drugs in polypoidal choroidal vasculopathy

Dear Editor,

I read the article by Anantharaman et al.\textsuperscript{[1]} with interest. I congratulate the authors for publishing the largest series data of patients with polypoidal choroidal vasculopathy (PCV) from India.

Photodynamic therapy (PDT) is associated with several disadvantages. First, PCV often presents as multiple widely distributed lesions, so it might be difficult to treat all lesions, including multiple polyps and interconnecting vessels, with a single beam of PDT. Treatment of leaking polypoidal dilations only, without treating the entire vascular complex can result in persistence or worsening of exudation. Second, it can be difficult to treat nodules in the peripapillary area with a round PDT beam. Third, features commonly associated with PCV such as a large pigment epithelium detachment or a large submacular hemorrhage are not usually amenable to PDT treatment. Fourth, PCV tends to recur repeatedly, so multiple PDT treatments are often necessary, which can increase the risk of long-term choroidal atrophy.\textsuperscript{[2]}

Vascular endothelial growth factor (VEGF) concentrations in the aqueous humor were found to be markedly increased in eyes with PCV when compared with normal controls.\textsuperscript{[3]} Histopathological examination also showed expression of VEGF in the retinal pigment epithelium (RPE) cells of PCV specimen.\textsuperscript{[4]} These evidences support the use of anti-VEGF drugs in the treatment of PCV.

Lai et al. reported that intravitreal bevacizumab stabilizes the vision with decrease in exudative detachment but it has
a limited role in regression of polypoidal lesions, seen on indocyanine green angiography (ICGA). Anti-VEGF drugs may have a limited role in complete regression of polyps and complete regression of polypoidal lesions on ICGA may not be the therapeutic target but a close follow-up is mandatory. Polyps showing a “washout phenomenon” on ICGA can be watched.

Gomi et al. showed that PDT combined with bevacizumab injection offers significantly better early visual outcomes than PDT alone. The combined treatment did not affect the resolution and recurrence of lesions; however, it decreased the rate of development of PDT-related hemorrhages. Recently, short-term results of the PEARL (polypoidal choroidal vasculopathy with intravitreal ranibizumab [Lucentis]) trial showed stabilization of vision at 6 months, with monthly intravitreal injection of ranibizumab in PCV, suggesting better penetration due to small molecular mass.

Considering the disadvantages and economic burden associated with PDT, anti-VEGF drugs alone could be the preferred treatment for symptomatic PCV.

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