

Usefulness of anti-vascular endothelial growth factor combined with dexamethasone implant for retinal vein occlusion

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Dear editor

I read with great interest the recent study by Michalska-Matecka et al¹ published in the journal *Clinical Interventions in Aging*. The authors investigated the impact of intravitreal dexamethasone implant on macular morphology and functions in eyes with macular edema (ME) secondary to branch retinal vein occlusion (BRVO) or central retinal vein occlusion (CRVO). I congratulate the authors for their enlightening study and would like to make some contributions to the study.

When treating BRVO or CRVO, first-line treatment is typically an anti-vascular endothelial growth factor (VEGF) agent. If this is inadequate, steroids can be initiated, either in combination with the anti-VEGF agent or alone. Steroids have significant anti-inflammatory actions that may incrementally benefit anti-VEGF blockade for the treatment of edema due to retinal vein occlusion (RVO). Dexamethasone intravitreal implants have also been shown to be a safe and effective treatment option. A recent study evaluated the safety and efficacy of one or two treatments over 12 months in eyes with ME related to BRVO or CRVO.²

However, I believe that combination therapy is very advantageous in patients with RVO. A recent study found that bevacizumab combined with dexamethasone implants produced greater improvements in macular thickness than bevacizumab therapy alone and required fewer bevacizumab injections in cases of both BRVO and CRVO.³ For patients who are already pseudophakic and who are not steroid responders, adding dexamethasone implant to a regimen of anti-VEGF injections is unlikely to significantly increase the risk of complications; less frequent treatments with combination therapy may be a palatable alternative to the more frequently administered anti-VEGF monotherapy.

I think that many doctors stick with anti-VEGF monotherapy longer than they should. Typically, patients' response to anti-VEGF injections is evident early in the course of treatment. If patients show the inadequate response, I add the dexamethasone implant very early. I look forward to further studies that will better define the role of anti-VEGF combined with dexamethasone implant.

Disclosure

The author reports no conflict of interest in this communication.

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Authors' reply

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Dear editor

Thank you kindly for the letter. We are very pleased that you were interested in our article and the results of the research and that it caused your reflection on the choice of the most effective therapy of macular edema (ME) secondary to retinal vein occlusion (RVO).

In our research, we have evaluated the effectiveness of intravitreal dexamethasone implant in the treatment of ME secondary to branch retinal vein occlusion and central retinal vein occlusion. The improvement in best-corrected visual acuity and the decrease in central retinal thickness persisted in

majority of patients up to 6 months of observation, although the best outcomes were observed within the first half of this period. Three months after dexamethasone implantation, the improvement in the above parameters was not so significant. During the last examination in some patients, we have noted slow recurrence of retinal edema even though the cathode-ray tube parameters were still lower than parameters obtained before administration of dexamethasone implant. It seems that the perfect time to implement subsequent therapy is when there occurs thickening of the retina. In the light of reports on the effectiveness of anti-vascular endothelial growth factor (VEGF) medications, such injections might be applied then.

The results of RVO are long-lasting and require many months of treatment, which is burdensome for the patient. Thus, it is crucial to look for solutions that will allow the effects to be maintained for a longer time and the amount of injections to be reduced. Therefore, combination of anti-VEGF injections and dexamethasone implant, which you mentioned, is a legitimate suggestion. We wish to emphasize the need to consider the course and method of treatment individually depending on clinical case. Moreover, there is a need to adopt standards of treatment of RVO, taking into account current therapeutic options, ie, anti-VEGF, corticosteroids and laser therapy.

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The authors report no conflicts of interest in this communication.

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