Commentary on "Intravitreal dexamethasone implant for management of treatment-naïve retinal vein occlusion"

Sir,

Treatment of macular edema has been revolutionized by the introduction of optical coherence tomography and intravitreal injections over the last decade and a half. Intravitreal anti-vascular endothelial growth factor (anti-VEGF) injections, initially introduced for neovascular Age-related macular degeneration have made a significant contribution toward alleviating macular edema due to diabetes and retinal vein occlusion (RVO). Corticosteroid injections have been used in the past. Introduction of intravitreal dexamethasone implant (IDI) just under a decade back, has added to the armamentarium of the ophthalmologist. It provides sustained released dexamethasone, typically over a period of 3–6 months, reducing the need for frequent injections. However, it is accompanied by the increased chances of intraocular pressure (IOP) rise, and progression/onset of cataract.

The article "The efficacy of intravitreal dexamethasone implant as the first-line treatment for retinal vein occlusion-related macular edema in a real-life scenario"[1] addresses an important question. In this article, the authors have shared their experience with the use of IDI in eyes with macular edema secondary to RVO, which have not received any other prior treatment. While most literature and current practice focuses using IDI as alternate therapy in eyes not responding to anti-VEGF injections, the question addressed here is, whether IDI can be offered as a primary therapy.

To address this question, let us list out certain salient points. Mechanism of macular edema is multi-factorial. While most anti-VEGF agents target limited factors, steroid agents have anti-angiogenic, anti-inflammatory, and anti-proliferative effects. The incidence of adverse events with IDI, ranges from 6% to 32% for cataract (needing surgery), and 5%–36% for IOP rise (>25 mm Hg needing IOP lowering drugs).[2,3] None of these studies mention need for glaucoma surgery for IOP management. To add, these adverse events, occur at a lower frequency with IDI, as compared to other steroid injections.[4] This could possibly be due to different ocular distribution[5] and pharmacological profile[6] of various corticosteroids. In all series, management of IOP rise was by IOP lowering medication, and cataract was very safely managed with cataract surgery. The results and inferences from previously published literature are in agreement with this study, and our own experience. In comparison, the ocular safety profile of anti-VEGF injections is generally favorable. However, they have been reported to be associated with increased risk of cerebrovascular accidents[7] and myocardial infarction (MI).[8]

A sustained release drug, decrease number of injections and hence burden of therapy. When using dexamethasone implant, overall cost of treatment may actually come down for the patient, when compared to most anti-VEGFs (except off-label use of bevacizumab) as frequent injections are not required. Often there may be patient/family anxiety associated with repeated injections. Lesser visits to operating room/injection room, with use of sustained release drug help alleviate patient anxiety.

Therefore, as a concluding remark, it might be most prudent to offer the choice of treatment to the patient. Allowing them to make an informed choice. Explaining risks and benefits of each. Certain existing patients' conditions, as mentioned above may not be suitable, for example, existing glaucoma for steroid use, and known history of transient ischemic attacks, stroke, and MI for anti-VEGF use. For the rest, it may be most wise to give the choice to the patient and make an informed choice ourselves as well, as treating surgeons.

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Conflicts of interest

There are no conflicts of interest.

Mayank Bansal

Associate Consultant, Vitreo-Retinal Surgery Ophthalmology, Medanta Hospital, Gurgaon, Delhi, India

Correspondence to: Dr. Mayank Bansal, Associate Consultant, Vitreo-Retinal Surgery Ophthalmology, Medanta Hospital, Gurgaon, Delhi, India.
E-mail: drmayankbansal.md@gmail.com

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