

Response to ‘Clinical features, optical coherence tomography findings and treatment outcomes of post-fever retinitis’

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Dear Editor,

We read the article ‘Clinical features, optical coherence tomography findings and treatment outcomes of post-fever retinitis’ published by Sunder and colleagues¹ with great interest. Authors have recommended the use of anti-vascular endothelial growth factor (anti-VEGF) as they found good outcome in their patients. The authors have cited our article ‘epidemic retinitis’ published online in January 2018, where we have also noted good visual outcomes in cases receiving anti-VEGF.² Here, we wanted to clarify that this conclusion was based on the final visual gain only, and speed of recovery was not evaluated in our study. This study was not designed to assess the role of anti-VEGF. We have published our comparative study ‘Anti-vascular endothelial growth factor in the treatment of macular edema in epidemic retinitis’,³ where we compared eyes receiving oral doxycycline and oral steroids against eyes receiving oral doxycycline, oral steroids, along with anti-VEGFs. Unlike Sunder and colleagues’ study, we evaluated not only the visual improvement but also the days taken for resolution of macular edema. Visual outcome in epidemic retinitis (post-fever retinitis) depends on multiple factors as elaborated by Sunder and colleagues. Presence of retinitis lesions near fovea, accumulation of hard exudates at the fovea, ellipsoid zone disruption, retinal thinning, macular ischemia, and the optic nerve involvement, all can contribute to poor visual outcome. Hence, assessing mere visual outcome may not be enough to evaluate the role of anti-VEGF. In our study, we found that the macular edema resolved completely in 34.8 days (range: 16–65) in eyes receiving doxycycline + steroids and 39.0 days (range: 21–45) in eyes receiving doxycycline + steroids + anti-VEGFs. Mean corrected distant visual acuity (CDVA) in eyes without anti-VEGF improved to

65.7 (range: 0–85) ETDRS letters compared with 50.8 (range: 20–76) ETDRS letters in eyes with anti-VEGF. We also had two eyes which received anti-VEGF monotherapy who improved to 70 and 85 ETDRS letters, respectively. But complete resolution of macular edema took 45 and 18 days, respectively. Thus, in our study which was specifically assess the role of anti-VEGF, we found no significant advantage of anti-VEGF therapy. Sunder and colleagues have treated all of their patients with oral doxycycline and oral steroids. They added anti-VEGF when the macular edema was severe. In our study, we also evaluated relationship between severity of macular edema and days to resolution. No obvious difference in days taken for resolution of macular edema was noted.³

Author has also cited our comparative study of treatment outcomes in epidemic retinitis with and without steroids.⁴ This was a cohort of 18 eyes of 14 patients treated with oral antibiotics and without any steroids, which was then compared with cases treated with oral antibiotic–steroid combination. We observed equivocal outcome in terms of days taken to resolution for macular edema and resolution of retinitis lesions. In this cohort, the final best corrected visual acuity improved from 20/114 (range: 20/30–20/800) to 20/30 (range: 20/20–20/200). We find this outcome comparable or even better than the previous reports.^{1–4} We are of opinion that most of the cases of epidemic retinitis can be treated with oral doxycycline and without any steroids or anti-VEGF agents. Topical steroids or topical non-steroidal anti-inflammatory drugs can be added depending on anterior segment inflammation. One would opt for anti-VEGF in the presence of retinal neovascularization, but very recently regression of neovascularization with mere oral doxycycline has also been reported.⁵ Thus, use of anti-VEGF for severe macular edema or even for

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early retinal neovascularization without vitreous hemorrhages may not be always required in epidemic retinitis. To critically evaluate the role of anti-VEGF in epidemic retinitis, larger randomized controlled trials are needed. But because it is now clear that epidemic retinitis is a self-limiting disease and has good visual outcomes despite its aggressive presentation, conducting such trials with invasive treatment modalities may not be possible.

Conflict of interest statement

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