

Post-perforation epimacular membrane: Do's and don'ts

Dear Editor,

I thank the respondents for their insightful and probing comments and queries on my case report, which allow discussion of finer case details, not possible earlier due to constraints of word limit.

Their first concern is delayed presentation of the globe perforation in spite of “successful cataract surgery in the era of phacoemulsification”, and about the hospital follow-up protocol. This lady underwent manual small incision cataract surgery at the Free Section of a suburban branch of my alma mater, Aravind Eye Hospital and Postgraduate Institute of Ophthalmology, a tertiary eye care center, as a “Free Camp” patient. The details of postoperative care of such patients are described elsewhere.^[1] Briefly, the Free Camp (charity) patients are brought to the hospital from a screening camp, admitted for surgery, kept as inpatients for 2-3 days, and are then discharged and transported to their native village/town, all free of charge. Vision is checked with pinhole at discharge. For presumably uncomplicated cataract surgeries (as in this case), review is advised after a month. The surgeons advise earlier follow-up if required; patients are encouraged to consult local ophthalmologists if needed. While I have already accepted the inherent delay in management with this protocol,^[2] I don't agonize over it, as an excellent final outcome could be obtained.

The 2nd issue is about any preexistent epimacular membrane (EMM) in this patient. Since the cataract was dense (preoperative best-corrected visual acuity was 20/240),^[2] the fundus was not visible sufficiently to detect a pre-existing EMM. Looking at the case details, however (EMM originating from the perforation site), it is reasonable to presume that the EMM followed the globe puncture. Cardillo *et al.*^[3] did not suggest that a thick EMM could not develop over a month. In fact, the shortest time quoted for noticing visually significant proliferative vitreoretinopathy (PVR) was 15 days in their series;^[3] they have also quoted animal models developing PVR after 4 days. Coexisting vitreous hemorrhage was reported to the strongest predictive factor for PVR.^[3] PVR membranes themselves were the most common cause for visual loss, and as already discussed, PVR was 3 times more common

and occurred nearly 3 times faster in globe perforations as compared to penetrations.^[2,3] Finally, the location of exit puncture at the posterior pole could be an additional reason for greater PVR (i.e., denser EMM) in our patient due to greater retinal vascularity and density of retinal pigment epithelium there, key ingredients of EMM.

I am requested to provide an algorithm for management of globe perforations; drawing an algorithm on the strength of a single case report appears presumptuous to me. I fully agree that early vitrectomy for a postperforation vitreous hemorrhage is preferable; though I was unable to ascertain whether this patient had poor postoperative recovery due to vitreous hemorrhage, postoperative uveitis, EMM, or some combination of these variables.

The issue of warning the patient about the risk of anesthetic injections has ethical as well as medicolegal implications, especially in the current era of noninjectable and topical anesthesia. Schrader *et al.*,^[4] strongly recommend that the patient must be warned in all and not just in high-risk cases, quoting a Supreme Court mandate in Germany. I leave it to the cataract surgeons to decide how they wish to counsel their surgical patients; the purpose of this report was to warn them about this complication, and to assure of the potential for visual recovery.

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