Dear Editor,

The recently published article “Strategic Planning Ensures Surgical Success in Cases of Proliferative Vitreoretinopathy” by R.R. Lakhanpal (Vol. 46, No. 2) was excellent. We agree with Dr. Lakhanpal that dilute intravitreal triamcinolone allows for easy, reliable, and consistent identification of the adherent vitreous layer on the retinal surface. The common belief is that vitreous detaches out to the retinal break(s) in acute rhegmatogenous retinal detachment (RRD), where it remains adherent and causes traction on the retinal flap. It is often assumed that the presence of a Weiss ring indicates a complete posterior vitreous detachment (PVD) from the retina; however, we are often surprised by a triamcinolone-stained residual layer of vitreous over the posterior and peripheral retina in many eyes with RRD, including some with a preexisting Weiss ring. We believe that there is incomplete vitreous separation in some eyes with RRD. There is some evidence for this finding in that partial PVDs were found in 71 of 786 eyes (7%) from one autopsy study, and in these eyes the midperipheral to peripheral vitreous was detached over one large segment of the retina but remained attached in the other segments.

We recommend instilling 0.1 to 0.2 mL of dilute intravitreal triamcinolone and then aspirating any freely suspended particles with the vitreous cutter or silicone soft tip until a thin layer remains on the retina surface (Videos 1 and 2; scan the QR codes below or go to http://www.healio.com/video-portal). If the remaining triamcinolone crystals are easily blown off of the retina surface with gentle aspiration and/or redirecting the infusion line, then there is unlikely residual vitreous. Alternatively, a layer of residual vitreous, likely the posterior hyaloid face, is usually still present and may be strongly adherent to the retina if the triamcinolone crystals cannot be removed. Because the tissue is fine and fragments easily, we begin peeling it with either a Tano scraper or Alcon Grieshaber curved membrane scraper. The peeling should continue anteriorly, and the tissue will thicken until it becomes contiguous with the vitreous base. In the midperiphery, the thickened layer can often be grasped and peeled with forceps. We believe this fine tissue of residual vitreous represents the posterior hyaloid and not a secondary epiretinal membrane. It may be present in eyes with acute RRD with or without a PVD. It is often absent in the quadrant of the retinal break(s), but present elsewhere on the retinal surface and extends peripherally to the vitreous base. A similar layer of residual vitreous is often removed from the macula prior to peeling of epiretinal membranes or the internal limiting membrane. While there are no prospective studies comparing recurrent retinal detachments or PVD with or without the removal of this residual vitreous layer, it seems prudent to remove it to decrease residual traction on the retina and the potential scaffold for epiretinal membrane formation.

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REFERENCES


doi: 10.3928/23258160-20150422-01