Letter to the Editor: Spontaneous Attachment of Rhegmatogenous Retinal Detachment Following Vitrectomy for Stage 4B Retinopathy of Prematurity and Atypical Retinal Changes Post-Resolution

Dear Editor,

We read with great interest the article by Savla et al. that was published in the July 2018 issue of your journal.1 The authors described spontaneous resolution of late-onset rhegmatogenous retinal detachment (RRD) in an infant who had undergone lens-sparing vitrectomy for Stage 4B retinopathy of prematurity (ROP). The authors must be complimented on good documentation and follow-up of the patient.

However, the authors have not included preoperative fundus pictures of the left eye in the manuscript. If these were not done on the RetCam (Natus Medical, Pleasanton, CA), the authors may be able to provide a still photograph from starting of the surgical video (as they had done to show attached retina at the end of surgery in Figure 1 of their paper).1 This could help in getting a better understanding of the anatomy of the macula and overlying membranes.

The authors mention that fluid-air exchange (FAX) was done at the end of surgery. What was the rationale for doing the same? Was complete or partial FAX done? In cases when limited vitrectomy is done, as was done for this patient, air bubble in the vitreous cavity may cause traction on the inferior retina and lead to retinal breaks. This is akin to inferior breaks seen in cases of pneumatic retinopexy.2 To label the patient as case of RRD would not be correct. The fact that no retinal break could be identified after subretinal fluid in the macula spontaneously resorbed points toward the fact that the highlighted retinal break was a “pseudo-hole,” which was seen due to the overlying epiretinal tissue.3 On separation of the epiretinal tissue, both the subretinal fluid and the “pseudo-hole” disappeared. A plausible hypothesis for late-onset subretinal fluid at the macula could be vitreous and epiretinal traction-induced intraretinal and subretinal fluid.4 On release of the vitreous and epiretinal traction, the fluid also disappeared. Hence, in the absence of optical coherence tomography, this case should not be titled as spontaneously attached rhegmatogenous retinal detachment in a child with ROP.

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Reply to Letter to the Editor: Spontaneous Attachment of Rhegmatogenous Retinal Detachment Following Vitrectomy for Stage 4B Retinopathy of Prematurity and Atypical Retinal Changes Post-Resolution

We are thankful for the interest and comments on our article on “Spontaneous Attachment of Rhegmatogenous Retinal Detachment Following Vitrectomy for Stage 4B Retinopathy of Prematurity and Atypical Retinal Changes Post-Resolution.”1 We do not have any fundus images of the baby prior to surgery. As requested, we have provided a still photograph from the beginning of the surgical video, though the picture quality and focusing is not good (Figure 1). As a part of our protocol, we usually do a partial fluid-air exchange following lens-sparing vitrectomy, as described by Capone et
and the same was done in this case. The air inside the vitreous cavity ensures a better sealing of the scleral ports and prevents postoperative hypotony and bleeding. This case cannot be compared to pneumoretinopexy for simple rhegmatogenous retinal detachment, where an expansile gas is injected without a vitrectomy. Here, a partial vitrectomy was done to relieve major tractional forces and the space so created was replaced by air, which did not expand and got absorbed soon, making air-induced vitreous traction very unlikely. Besides, had there been an air bubble-induced vitreous traction, the break and detachment would have presented immediately after the absorption of air. In contrast, the retina in the present case was attached for a month following vitrectomy, whereas air got absorbed within a week of vitreous surgery. The choroidal show across the break seen with indirect ophthalmoscope in multiple visits, progressive increase in detachment, and pigment dispersion were evidence in favor of a rhegmatogenous detachment. Unfortunately, we did not have a pediatric optical coherence tomography to demonstrate the same and have accepted it as a limitation in our article. We did not agree that the fluid was the result of vitreous and epiretinal traction without a tear. The major tractional forces were already relieved during surgery. There were no vitreous band or anteroposterior traction seen clinically during follow-up, and the detachment did not have a configuration of a tractional detachment. Contraction of the residual localized epiretinal tissue, in the authors’ opinion is unlikely to cause a progressively increasing detachment over the midperiphery and posterior pole without an associated retinal break.

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