Suprachoroidal air during silicone oil removal

Rushil Kumar Saxena, Padmaja Kumari Rani

Smt Kanuri Santhamma Centre for Vitreoretinal diseases, L V Prasad Eye Institute, Hyderabad, Telangana, India

Correspondence to
Dr Padmaja Kumari Rani,
rpk111@gmail.com

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DESCRIPTION

A 26-year-old man underwent scleral buckling followed by pars plana vitrectomy with silicone oil implantation for the management of traumatic retinal detachment in the left eye. His best-corrected vision was 20/200 in that eye. He was scheduled for silicone oil removal in his left eye. A 23 g pars plana silicone oil removal was planned using 23 g suture less sclerotomies and removal of silicone oil with manual suction. At the end of silicone oil removal, retinal examination was done with peripheral scleral depression: the retina was found attached with no additional treatable lesions. Partial fluid–air exchange was done at the end to support the closure of the sclerotomies. However, during partial fluid–air exchange, massive choroidal detachment occurred, completely obscuring the view of the fundus. The position of the infusion cannula was checked, and it found to be dislocated with its tip protruding into the suprachoroidal space and causing the complication of air entering into the suprachoroidal space. No further intraoperative manoeuvres were done, and the port was immediately removed and sutured with 7–0 vicryl. On postoperative day 1, the choroidal detachment was seen to persist. However, the disc was visible (figure 1). The patient was managed medically with topical and systemic steroids. On weekly follow-up visits, he showed resolving choroidal detachment. At the 1-month follow-up visit, there was complete resolution of the choroidal detachment, with a well-attached retina and recovery of visual acuity to 20/250 (figure 2).

Sutureless sclerotomies can have an inherent complication caused by an unstable infusion cannula location compared with a sutured infusion cannula. Suprachoroidal air is a rare but potentially vision-threatening complication during the fluid–air exchange step. Two cases of suprachoroidal gas and air as a complication of sutureless pars plana vitrectomy during the fluid, air/air and gas exchange have

Figure 2 Left eye fundus at 1-month follow-up visit, showing complete resolution of choroidal detachment with attached retina and peripheral buckle effect.

Learning points

- ▶ Remember that suprachoroidal air is a potential vision-threatening complication that could occur during the fluid–air exchange step of silicone oil removal.
- ▶ The surgeon should check the infusion cannula location before initiating fluid–air exchange and thereby prevent the complication of suprachoroidal air.
- ▶ The suprachoroidal air complication can be medically managed with topical and systemic steroids, without requiring surgical intervention.

been reported earlier.¹² In both of those cases, the complete resolution of choroidal detachment was only through medical management.¹²

The present case shows the occurrence of a vision-threatening complication such as suprachoroidal air due to the unstable positioning of the infusion cannula during 23 g sutureless silicone oil removal. The case also illustrates the importance of checking the location of the infusion cannula before initiating the fluid–air exchange step. This prevents the complication of suprachoroidal air. Our case describes how choroidal detachment may be resolved only on the basis of medical management, using topical and systemic steroids.

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Figure 1 Left eye fundus shows massive choroidal detachment due to air in the suprachoroidal space.

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