Myopic retinoschisis with intraretinal emulsified silicone oil appearing as a macular hyperoleon

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Key words: Hyperoleon, intraretinal silicone oil, inverted hypopyon, myopic retinoschisis, pathologic myopia

A 51-year-old man with pathologic myopia (PM) was regularly reviewed. In 2010, he had undergone vitreoretinal surgery; vitrectomy with silicone oil (SO) tamponade (1300-centistokes) in the right eye for rhegmatogenous retinal detachment (RRD) and concurrent macular hole (MH). The SO was removed after 7 months. Best-corrected visual acuity (BCVA) remained stable in both eyes during 9-year follow-up: 6/24 in the right eye and 6/9 in the left eye. The anterior segment was clear. In 2013, the fundus examination showed a posterior staphyloma with diffuse chorioretinal atrophy in both eyes. In the right eye, central retinal pigment epithelium and choroidal atrophy were observed with type II closure of the MH with an active classic choroidal neovascular membrane [Fig. 1a] that was treated with intravitreal bevacizumab. In 2016, a small gray sheen was noticed in the superior macula [Fig. 1b]. Three years later, the gray sheen covered the entire superior macula with a sharp horizontal margin superiorly [Fig. 1c]. Corresponding swept-source optical coherence tomography (OCT) revealed macular retinoschisis with emulsified SO [Fig. 2], seen as small hyperreflective spherical bodies,[1] filling the schitic spaces in the superior macula. Retinoschisis starting at the edge of the MH appeared to be the entry route for the SO.

Discussion

Due to decreased contrast caused by fundus features of PM retinoschisis is usually difficult to appreciate on fundus examination.[2] Emulsified SO confined to the preretinal and sub-epiretinal membrane and subretinal space has been reported to manifest as a retinal hyperoleon due to its low

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specific gravity.[1,3,4] In reports on intraretinal SO, its presence is limited to small quantities.[3]

We report a case where a slow progression of retinoschisis in PM is visualized due to concurrent increase of intraretinal SO resulting in a hyperoleon configuration 9-years post-surgery. This demonstrates the confluent connection between the schitic spaces and makes the extent of the retinoschisis in the superior macula visible on fundus examination.

Declaration of patient consent
The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest
There are no conflicts of interest.

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