Intraretinal haemorrhagic cyst mimicking choroidal haemangioma

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DESCRIPTION
An 18-year-old healthy man presented to our clinic with diminution of vision in the left eye (oculus sinister, OS) of 1 year duration. The patient was diagnosed to have choroidal haemangioma OS with exudative retinal detachment (RD) elsewhere. Ophthalmic evaluation revealed a best corrected visual acuity of 20/20 in the right eye (oculus dexterus, OD) and perception of light in OS. Slit lamp and fundus examination of OD was unremarkable. OS revealed a positive Shaffer sign and relative afferent pupillary defect. Fundus OS showed total RD with a 10 DD sized, solid-looking cyst occupying the superior retina (figure 1A). Shifting fluid was present. Systemic evaluation was found to be within normal limits.

Ultrawide-field fluorescein angiography revealed blocked fluorescence corresponding to the cyst and diffuse mottled hyperfluorescence (figure 1B) commensurate with RD. Indocyanine green is not available as the patient denied the same. No retinal break could be located. Ultrasonography B-scan revealed RD and axial length of 24.6 mm in OS. The lesion was intraretinal (figure 2) with low to moderate internal echoes. The patient was diagnosed to have long-standing rhegmatogenous retinal detachment (RRD) with intraretinal haemorrhagic cyst. In view of poor prognosis, the patient denied surgery.

RRDs may be complicated by development of intraretinal cysts, especially in RRDs of long duration.1,2 Haemorrhagic intraretinal cysts have also been described rarely.3 When present they may invite a differential diagnosis of circumscribed choroidal haemangioma and choroidal melanoma.4 We report a case of RRD with haemorrhagic intraretinal cyst referred as choroidal haemangioma with exudative RD. The presence of shifting fluid and absence of obvious retinal break made the initial diagnosis difficult in this case. Shifting fluid in a case of RD is not pathognomonic of exudative RD and may be seen in 5% of RRD cases.5 A diagnosis of RRD must not be excluded based on the presence of shifting fluid. Further, a retinal break may not be evident on clinical examination and should not be used as a criterion to exclude RRD. The risk of missed breaks in RRD varies from 2.2% to 4.0% in phakic, 7%–16% in aphakic and 5%–22.5% in pseudophakic RRD.6 In the present case, blocked fluorescence on fundus fluorescein angiography (FFA) ruled out choroidal haemangioma, which is a hyperfluorescent lesion on FFA.7 Choroidal melanoma also shows double circulation on FFA and does not cause blocked fluorescence.8 Intraretinal location of lesion on ultrasonography ruled out the choroidal lesions. A red-coloured cystic lesion along with imaging features confirmed the diagnosis in this case.

Figure 1 (A) Pseudocolour wide-field imaging shows total retinal detachment (RD) with a large red cystic lesion occupying the superior retina (yellow arrows mark the edges). (B) Ultrawide-field fluorescein angiography shows blocked fluorescence corresponding to the lesion. Mottled hyperfluorescence can be seen in the detached retina.

Figure 2 Ultrasonography B-scan shows a 7.2 mm×7.6 mm cyst with a sharp spike on vector B-scan on anterior margin followed by two clearly demarcated spikes at the posterior margin suggesting intraretinal location of the cyst.

Learning points
- Haemorrhagic intraretinal cysts can mimic a choroidal haemangioma.
- Fundus fluorescein angiography and ultrasonography B-scan are useful in accurate diagnosis.

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