

Commotio retinae halo

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DESCRIPTION

The diagnosis of commotio retinae is clinical and relies on fundoscopic examination. The classic finding is retinal whitening or opacification that clinically resolves within 4–7 days.¹ Disruption of the photoreceptor outer segments is the primary underlying pathology with sparing of the blood vessels.² When the macula is involved, it is known as Berlin's oedema, with a 'pseudo cherry red spot'.³ Though a majority of patients recover in 1–4 weeks with no permanent deficits, those with severe commotio may have residual retinal pigment epithelium (RPE) changes, RPE atrophy or hyperpigmentation.^{4,5} A healthy man around 40 years of age presented to us after sustaining an injury to the left eye with a tennis ball. Anterior segment showed diffuse conjunctival congestion, iris sphincter tears and open angles on gonioscopy. The visual acuity and intraocular pressure were normal. Fundus examination showed an interesting distribution of commotio retina in the mid-periphery concentric to the disc but sparing the posterior pole ([figure 1](#)). The equatorial expansion after the severe blunt trauma with a uniformly shaped tennis ball could

have resulted in this pattern. Commotio retinae usually presents with a localised or diffuse pattern and seen in the inferior and medial retinal periphery as these are the most vulnerable areas. The present case highlights an unusual pattern of commotio retinae concentric around the disc and should prompt a closer follow-up for other sequelae in view of the severity of the injury.

Learning points

- ▶ Commotio retinae is a consequence of blunt ocular trauma and the presentation can indicate the severity of the impact.
- ▶ While commotio retinae self resolves in a majority, a close follow-up is mandatory to monitor for other sequelae of trauma.

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Case reports provide a valuable learning resource for the scientific community and can indicate areas of interest for future research. They should not be used in isolation to guide treatment choices or public health policy.

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REFERENCES

- 1 Mansour AM, Green WR, Hogge C. Histopathology of commotio retinae. *Retina* 1992;12:24–8.
- 2 Berlin R. Zur sogenannten commotio retinae. *Klin Monatsbl Augenheilkd* 1873;11:42–78.
- 3 Bagheri N, Wajida BN, eds. *The wills eye manual: office and emergency room diagnosis and treatment of eye disease*. 7 ed. Wolters Kluwer, 2017.
- 4 Mansour AM, Green WR, Hogge C. Histopathology of commotio retinae. *Retina* 1992;12:24–8.
- 5 Sipperley JO, Quigley HA, Gass DM. Traumatic retinopathy in primates. the explanation of commotio retinae. *Arch Ophthalmol* 1978;96:2267–73.

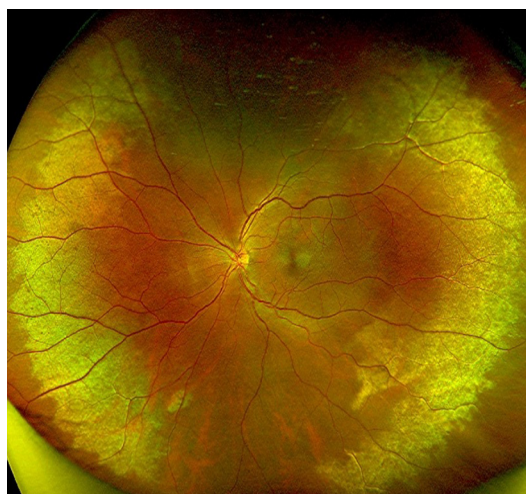


Figure 1 Fundus picture of the left eye showing concentric retinal whitening suggestive of commotio retinae.



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