Foveal haemorrhage from makeshift 'Lightsaber': funduscopy and optical coherence tomography findings

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Accepted 28 February 2016

DESCRIPTION

A 15-year-old boy presented after being attacked by a 'Lightsaber' wielded by his friend. The device in question was a blue laser pointer (450 nm 8000 mW) reflected by his friend off a mirror—the beam caught the patient in the left eye for a mere 1 or 2 s. His vision dropped immediately and he presented the next day with a macular haemorrhage (figure 1) and a vision of 6/60. We treated via

observation only and, fortunately, his vision improved slowly over the next 4 weeks: day 7, 6/36; day 14, 6/18 and day 30, 6/12. In the absence of any evidence for an active choroidal neovascular membrane, we felt that intravitreal antivascular endothelial growth factor therapy was not indicated.

It is common knowledge that lasers can cause retinal injury,¹ but we would like to share these

Figure 1 Fundus photos and optical coherence tomography images capturing the natural history of the foveal haemorrhage following the laser injury.

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To cite: Yeo DCM, Osei-Bempong C, Shirodkar A, et al. *BMJ Case Rep* Published online: [please include Day Month Year] doi:10.1136/bcr-2016-214711

images depicting the natural progression of a foveal haemorrhage.

High-powered lasers are now even more readily available off the internet.² Unlike those normally seen in the classroom or

office setting, which are usually about 5 mW or less,³ these 8000 mW lasers can burn skin, cause fires and even light cigarettes. Anyone can purchase one of these unregulated devices for a very low cost and do irreversible damage to vision with minimal effort. The sale of these devices should be made illegal to the general public as it has potential to cause significant bodily harm even from quite a distance away.

Learning points

- ▶ We recommend careful observation for these patients in the short term as surgical treatment may carry more risk especially if the underlying subretinal structure is not seen.
- ▶ High-powered laser devices are getting very accessible. The public should strictly keep these away from children.
- ▶ These pictures capture the natural history of a foveal haemorrhage secondary to laser injury that will settle slowly with time. We wish to share these images to be used as reference for future cases of suspected laser retinal injury.

Competing interests None declared.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

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