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An outbreak of subhyaloid haemorrhage after accidental laser exposure during an Indian festival

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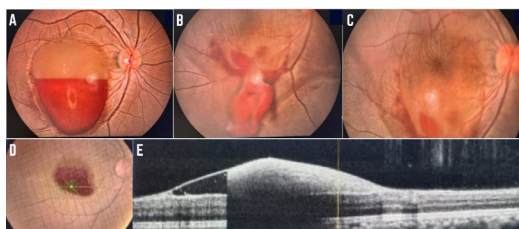
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Purpose: To report clinical manifestations and outcomes from patients who experienced retinal damage due to accidental laser exposure during a festival in Kolhapur, Maharashtra.

Methods: Consecutive patients who presented with sudden loss of vision following exposure to laser lights during a religious Indian festival (Ganapati festival) on the same day (9th September 2022) at the same location (idol visarjan procession) were identified from the medical records of various eye hospitals in Kolhapur district of Maharashtra. Eyes with persistent subhyaloid haemorrhage (SHH) were taken up for Nd YAG posterior hyaloidotomy. Patients were examined at weekly intervals up to 1 month.

Results: Thirty-four eyes of 34 men were identified ranging from 18-27 years. The mean duration of exposure to the laser projections was 4.9 ± 1.7 hours and mean distance from the laser source was 7.3 ± 2.7 feet. All presented with SHH involving the macula. The SHH had a median size of 3 disc diameters or larger in 30 eyes (88%), and 29 (97%) of these required hyaloidotomy while 1 patient underwent pars plana vitrectomy. The mean visual acuity improved from $1.45 + 0.5$ logMAR (20/560 Snellen) to $0.11 + 0.19$ logMAR (20/25 Snellen) ($p < 0.001$). One eye showed full thickness macular hole with visual acuity of 20/200.

Conclusion: We report a large number of patients experiencing laser induced SHH, resembling an outbreak, due to exposure to a malfunctioning high powered recreational laser during a religious festival. Local authorities need to ensure safety standards to prevent this from happening again.



Biography

Rachana Prashant Shah has completed her medical degree (MBBS) at the age of 24 years from Krishna Institute of Medical Sciences, India and post-graduation in Ophthalmology from Maharashtra University of Health Sciences, India.

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