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High-power blue laser pointer induced maculopathy

Saba Al Reshaid

King Khaled Eye Specialist Hospital, KSA

Laser devices are ubiquitous in modern medicine, industry, military and everyday life. Lecturers often use hand held laser pointers at conferences. Eye injuries due to laser exposure are a concern because optical radiation from 400 nm to 1400 nm penetrates into various ocular structures. The eye is the only organ vulnerable to this range of wavelength. The blink reflex and aversion response restrict the duration of laser exposure to 0.15-0.25 seconds. These natural protective mechanisms are effective against low power laser pointers. However, retinal injury following prolonged (>10 seconds) can occur after exposure to low-power laser pointers recently high-power handheld laser pointers (up to 1200 mW) are now publicly available via the internet. These laser pointers can be used to light fireworks from a distance, light cigarettes and burn through plastic bags, this study will show our experience with the patients presented with retina injury caused by

momentary exposure to a high-power blue laser pointer. 27 patients had a history of laser pointer were presented with the followings: Full thickness macular hole (FTMH) in 17 eyes, intraocular hemorrhage in 7 eyes, an outer retinal disruption in one eye, an epiretinal membrane in 1 eye and a schisis-like cavity in one eye. Initial best-corrected visual acuity (BCVA) had a mean of 20/290 (range: 20/40 to 4/200). Neodymium:yttrium-aluminum-garnet Nd:YAG hyaloidotomy was performed in five eyes with sub hyaloid hemorrhage and pars plana vitrectomy (PPV) with or without tamponed in 15 eyes. Whereas observation elected in 7 eyes visual acuity improved almost in all patients spontaneously or following intervention. Conclusions observed that visual acuity improved in all patients spontaneously or following intervention. High-power handheld laser pointers are extremely dangerous to the eye and public awareness should be encouraged.

Biography

Saba Al Rashaed is an Ophthalmologist who has experience in handling eye diagnosis, surgeries and recommendations to help patients perform proper care for their eyes. He has excellent skills in performing surgeries and giving treatments, values time and work management, practices effective organizational skills strategies for better coordination with peers. He participates in the training of residents, as well as fellows. He is a dedicated Researcher and rigorous when it comes to designing the research projects, as well as in implementing them. He has 30 scientific publications and 66 scientific posts.