IMAGES IN CLINICAL MEDICINE

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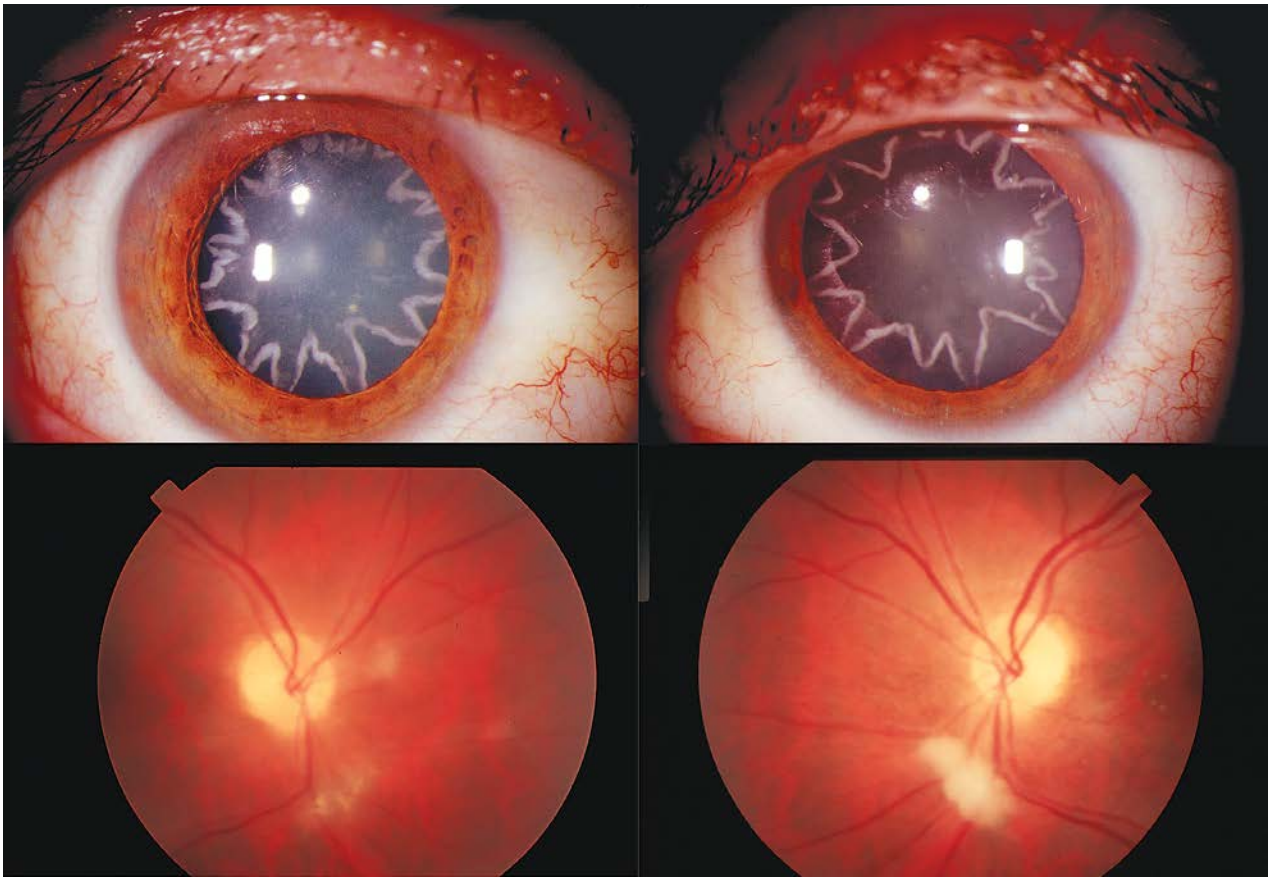
Ocular Manifestation of Electrical Burn



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A 42-year-old male electrician presented to the eye clinic with decreasing vision 4 weeks after an electrical burn of 14,000 V to the left shoulder. His vision in both eyes was limited to perception of hand motions, with an intraocular pressure of 14 mm Hg in each eye. Slit-lamp examination showed bilateral stellate anterior subcapsular opacities of the lens (top panels, right and left). Dilated funduscopic examination showed scattered cotton-wool spots and bilateral optic-nerve pallor, which was greatest in the left eye (bottom panels, right and left). Four months after the injury, the patient underwent cataract extraction and implantation of an intraocular lens, which was followed by improvement in visual acuity to 20/70 in the right eye and 20/400 in the left eye. Two years after the injury, a retinal detachment developed in the left eye, and the patient underwent repair. At a 10-year follow-up visit, the patient's visual acuity was 20/100 in the right eye, but in the left eye he could only count fingers. There was bilateral optic atrophy with widespread macular pigment disruption. Although the patient was legally blind, he was able to read with the use of low-vision aids and was able to independently commute on public transportation. When lenticular opacities are the sole manifestations of electrical injury, cataract extraction is expected to produce a functional outcome. However, with concurrent damage to the optic nerve and retina, complete visual rehabilitation may be limited.

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