Ocular toxicity of intravitreal indocyanine green

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摘要

Abstract

We report 6 cases of indocyanine green (ICG)-related ocular toxicity after intravitreal ICG usage. Five cases had preoperative diagnosis of macular hole, 1 case had preoperative rhegmatogenous retinal detachment complicated with proliferative vitreoretinopathy. All cases received vitrectomy, ICG-assisted internal limiting membrane (ILM) peeling and air-fluid exchange. All eyes had residual ICG left at the end of surgery. Patients were followed up with indirect ophthalmoscopy, visual acuity, color fundus photography, fluorescein angiography, and ocular coherence tomography. Circular foveal retinal pigment epithelium atrophy larger than the area of macular hole and surrounding cuff was noted in 4 of 5 cases with preoperative macular hole. The other eye with preoperative diagnosis of macular hole had shallow anterior chamber and low intraocular pressure lasting for 1 week postoperatively. Diffuse retinal pigment epithelial atrophy was noted in the eye with preoperative proliferative vitreoretinopathy. Four eyes demonstrated optic atrophy postoperatively. Ocular toxicity caused by ICG may present as pigment epithelial atrophy, which is characteristically larger than the previous area of macular hole and surrounding cuff. Disc atrophy, retinal toxicity, and ocular hypotony were also observed in some cases. To prevent toxicity, residual ICG and ICG-stained ILM must be removed as completely as possible