

INDOCYANINE GREEN ANGIOGRAPHY-GUIDED LASER PHOTOCOAGULATION TREATMENT OF EXTRAFOVEAL OCCULT CHOROIDAL NEOVASCULARIZATION IN AGE - RELATED MACULAR DEGENERATION

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Background. Indocyanine green (ICG) angiography increased the detection and delineation of poorly-defined or occult choroidal neovascularization (CNV) when compared with fluorescein angiography. We conducted this study to evaluate the efficacy of ICG angiography-guided laser photocoagulation of extrafoveal occult CNV in age-related macular degeneration (ARMD).

Methods. The authors performed ICG angiography with scanning laser ophthalmoscope (SLO) in eyes with exudative ARMD. Patients were selected for laser treatment, using conventional guidelines, when ICG angiography demonstrated a well-delineated area of focal or plaque hyperfluorescence, presumed to be choroidal neovascularization. Argon laser photocoagulation treatment was applied under ICG angiography guidance. Follow-up ICG angiography was performed to allow early detection of the persistent or recurrent CNV after laser therapy, if present, repeated

laser treatment was applied.

Results. There were 21 patients (21 eyes) who had extrafoveal occult CNV receiving argon laser treatment under ICG angiography guidance. The anatomic outcome showed complete resolution in 10 eyes (48%), partial resolution in 5 eyes (24%), no change or worse in 6 eyes (28%). Visual outcome was improved in 5 eyes(24%), stabilization of vision in 12 eyes(57%) and worse in 4 eyes (19%). Mean follow up period was 13 months. The recurrence of CNV after laser therapy was noted in 8 eyes (53%).

Conclusion. Our preliminary study showed that ICG angiography-guided laser treatment can produce visual outcome improvement or stabilization in many cases of extrafoveal occult CNV in ARMD. Further control studies and longer follow-up are necessary to confirm the efficacy of this modality of therapy.

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