

Novel Macular Photorecovery Timer Detected Early Wet AMD Changes

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PURPOSE

We tested the hypothesis that the macular photorecovery time becomes significantly prolonged with the start of wet AMD, and that the device used could detect the change.

METHODS

Ten persons with advanced wet AMD in one eye and dry AMD in the other participated in this prospective, IRB approved study. The study eyes initially had dry AMD with corrected acuities 20/30 to 20/40, and at least one high risk characteristic for wet AMD. The device determined the time for central acuity to recover after a standard light flash. The device validated the response, and gave a warning only if the recovery time increased over 50% from baseline.

RESULTS

During the 8 month test period, one clinically asymptomatic participant received a warning between office visits and had new subretinal neovascularization with fluid. A second participant received a warning and had developed new pigment epithelial detachment. The other 8 participants had no change in acuity, photorecovery times or macula findings at the study close.

CONCLUSION

These findings, although small in number, support the sensitivity and specificity of the photorecovery timer in determining clinically significant macular changes, and may help with earlier detection of potentially blinding macular problems.