

PDT Beneficial in Eyes With CNV, Submacular Hemorrhage and AMD

Investigators evaluated the visual acuity results associated with PDT using verteporfin.

REVIEWED BY PAUL M. BEER, MD

In eyes that have choroidal neovascularization associated with submacular hemorrhage and age-related macular degeneration (AMD), treatment with photodynamic therapy (PDT) resulted in stable vision maintained for >12 months.

Paul M. Beer, MD, from the Lions Eye Institute, Albany Medical College, Albany, NY, and colleagues conducted an investigation to evaluate the visual acuity results associated with PDT using verteporfin (Visudyne; Novartis, East Hanover, NJ). The patients in the study had choroidal neovascularization in AMD associated with large submacular hemorrhage. Dr. Beer and colleagues wrote. The report appeared in *Ophthalmic Surgery, Lasers & Imaging*.

SPLIT PATIENTS INTO TWO GROUP

The investigators split the patients, all of whom had AMD, ≥ 12 months follow-up, submacular hemorrhage of ≥ 2.5 mm² and had received no other type of treatment in conjunction with PDT, were divided into two groups. One group included patients with eyes that had spontaneous submacular hemorrhage that was treated with PDT and the other group included patients with eyes that had submacular hemorrhage that occurred following PDT treatment.

"The presence of submacular hemorrhage did not preclude the patients from undergoing further PDT," Dr. Beer said.

Among patients with spontaneous submacular hemorrhage, the initial mean visual acuity was 20/294 and 12-month visual acuity was 20/252. Among patients with

submacular hemorrhage following PDT, mean visual acuity was 20/336 initially and 20/406 after 12 months, the researchers reported. The difference between initial and 12-month visual acuities in the two groups was not statistically different.

MEAN HEMORRHAGE SIZES

The mean hemorrhage size in the spontaneous group was 11.5 mm² compared with 7.8 mm² in patients who experienced submacular hemorrhage after PDT. Dr. Beer and colleagues reported that the subgroup analysis showed no statistically significant difference between the initial and final visual acuities, regardless of whether or not blood was present under the fovea. They said that when an analysis was performed taking into account the size of the submacular hemorrhages, only patients with spontaneous submacular hemorrhage > 10 mm² had a statistically significant difference in visual acuity at 12 months ($P=.0001$; initial acuity, 20/230; 12-month acuity, 20/456).

Dr. Beers and colleagues concluded that eyes treated with PDT for choroidal neovascularization associated with submacular hemorrhage and AMD maintained stable vision over a 12-month period. ■

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Bakri SJ, Nicke J, Yoganathan P, Beer PM. Photodynamic therapy for choroidal neovascularization associated with submacular hemorrhage in age-related macular degeneration. *Ophthalmic Surg Lasers Imaging*. 2006;37:278-283.