

Verteporfin PDT and intravitreal triamcinolone regimen effective in exudative AMD

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in Fort Lauderdale

COMBINED intravitreal triamcinolone injection and verteporfin (Visudyne®, Novartis) photodynamic therapy of exudative age-related macular degeneration produces improvements in visual acuity and reduces the number of retreatments needed to achieve persistent inactivation of the neovascular membrane compared with verteporfin PDT alone, German researchers report.

Speaking at the annual meeting of the Association for Research in Vision and Ophthalmology, Albert J. Augustin MD reported outcomes from a series of 199 patients, mean age 76 years, with choroidal neovascularisation secondary to AMD. At baseline, the patients had a mean ETDRS visual acuity of 20/125, ranging from 20/32 to hand motion, and a mean lesion size of 3.43 mm.

Eligibility for treatment was independent of lesion composition and location. The lesions in the series ranged from 0% to 100%

classic; 80.4% were subfoveal, 10.1% were juxtafoveal, and 9.5% were extrafoveal, explained Dr Augustin, Klinikum Karlsruhe, Karlsruhe, Germany.

Vision improved in most patients after single treatment

Patients underwent standard PDT, and then received 25.0 mg of purified triamcinolone delivered into the vitreous 16 hours later. The mean number of combination treatments needed to achieve complete vessel regression was 1.25 (range 1 to 4), with 80% of patients requiring only a single treatment.

After a mean follow-up of 46 weeks, ETDRS visual acuity at the last visit had increased significantly by 1.18 lines with a mean increase of 1.38 lines when measured by laser interferometry.

“Based on knowledge of the pathogenesis of neovascular growth in AMD and of the pathobiochemistry of the reaction to PDT, it seems combining a drug having anti-inflammatory and anti-VEGF activity with PDT offers a

better approach than PDT alone for treating exudative AMD. Our experience suggests this dual regimen can improve visual outcomes and reduce the number of retreatments.”

Acknowledging that the results of his single-centre non-randomised trial require further confirmation, Dr Augustin said that he is looking forward to the results of ongoing prospective studies evaluating the efficacy, safety, timing, and dosing of the combined regimen.

In his combination protocol, Dr Augustin chose to administer the triamcinolone 16 hours after the PDT, based on the time course of the post-PDT inflammatory reaction.

“Administering triamcinolone prior to PDT might antagonise some of the beneficial events induced by PDT that occur earlier after treatment. Our regimen is designed to inhibit the post-PDT inflammatory reaction, which takes at least 16 to 24 hours to become completely established,” he explained.

Best results in eyes with minimally classic lesions

Subset analyses for the large case series showed that significant increases in visual acuity were achieved in eyes with minimally classic lesions, 100% occult lesions, and lesions measuring up to 4,000 microns in diameter. Improvements in visual acuity were also found among eyes with predominantly classic lesions (mean: 1.05 lines) and those with lesions of 4.0 mm and larger (mean: 0.71 lines), although those changes were not statistically significant. In all lesion location subgroups, there was a statistically significant increase in visual acuity.

The triamcinolone treatment was accompanied by the expected side effects of cataract development and IOP elevation. Cataract surgery was performed in 33% of eyes overall and in 51% of the subgroup that were phakic at baseline.

About one-fourth of the patients required topical medication to control IOP. Most patients with pre-existing glaucoma were able to continue their therapy and none



Albert J. Augustin

decompensated, although 1.5% required glaucoma surgery. That surgery usually involved a cyclodestructive procedure and resulted in good IOP control, Dr Augustin said.

“As highlighted in a recent publication from Jost Jonas MD et al, (Ophthalmology 2005), the side effects of intravitreal triamcinolone can increase over time, and so these patients need to be followed very carefully for at least nine months or perhaps longer,” Dr Augustin said.

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