

Combined Intravitreal Triamcinolone with Photodynamic Therapy for the Treatment of Choroidal Neovascularization in Age Related Macular Degeneration

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PURPOSE

To determine whether photodynamic therapy (PDT) combined with intravitreal triamcinolone acetonide can improve visual acuity and reduce the overall number of treatment sessions in patients with choroidal neovascularization (CNV) caused by age related macular degeneration (ARMD).

METHODS

Retrospective case series of 73 consecutive patients (mean 80 yo). Mean follow-up was 30 weeks (12-52 weeks). All patients had subfoveal CNV. 45/73 patients had unsuccessful prior PDT. Group 1 (n=50) included patients who had pigment epithelial detachment (PED). Group 2 had CNV without PED (n=23). Triamcinolone (4mg) was injected intravitreally one week before PDT. Visual acuity, fluorescein angiography (FA) and optical coherence tomography (OCT) were obtained before treatment, and 6 weeks, 3 months and every 3 months thereafter. The combined therapy procedure was repeated at the 3-month follow-up visits or later whenever persistent CNV leakage was documented on FA or on OCT.

RESULTS

Visual acuity (mean 20/125 at inclusion) remained stable or improved in 95%, 92%, 87% and 87% at 3, 6, 9 and 12 months respectively (mean 20/120 at 6 months). There was no statistical difference between group 1 and 2. No CNV leakage was observed on FA in 66.7% of cases at 3 months and 47.6% at 6 months. Mean macular thickness decreased from 508 μm at baseline to 314 μm at 3 months and 355 μm at 6 months. In group 1, PED persisted or reappeared in 28%, 44%, 45% and 78% of cases at 6 weeks, 3, 6 and 9 months respectively. Retreatments were required in 10% (3 Mo), 56% (6 Mo) and 78% (9 Mo) of cases in group 1 and 0%, 25%, and 50% of cases at 3, 6 and 9 months respectively in group 2. The required number of combined treatments was 1.9 on average in group 1 and 1.5 in group 2 at 12 months. 25% of patients required glaucoma therapy. There was no refractory glaucoma, nor any endophthalmitis

CONCLUSION

Combined therapy with PDT and intravitreal triamcinolone may be effective and safe to manage ARMD associated CNV when PDT alone was not proved beneficial, or when previous PDT had failed to occlude new vessels. In this study, a comparable visual outcome was observed in eyes with PED which, however, required more treatment sessions.