Photodynamic Therapy and Intravitreal Triamcinolone for Extrafoveal Choroidal Neovascularization in Neovascular Age-Related Macular Degeneration

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We report a case of extrafoveal choroidal neovascularization (CNV) secondary to neovascular age-related macular degeneration treated with photodynamic therapy (PDT) and intravitreal triamcinolone. Nine months following PDT and intravitreal triamcinolone, no ophthalmoscopic or angiographic evidence of recurrent CNV in the left eye was found. The intraocular pressure (IOP) increased from 10 mmHg on presentation to 20 mmHg at 9 months. No IOP-lowering agents were required. The mild nuclear sclerosis remained unchanged.

INTRODUCTION
Photodynamic therapy (PDT) with verteporfin is recommended for use in eyes with subfoveal choroidal neovascularization (CNV) (1). Photodynamic therapy has been used more recently with intravitreal triamcinolone (2). We report one case of extrafoveal CNV treated with PDT and intravitreal triamcinolone.

CASE REPORT
A 73-year-old male with a disciform scar on his right eye (OD) from untreated neovascular age-related macular degeneration (AMD) presented to the Duke Vitreo-retinal Service, with decreased visual acuity in the left eye (OS). Best-corrected acuity was 20/40 OS. Intraocular pressures (IOP) were normal at 10 mmHg. Anterior segment examination demonstrated mild nuclear sclerosis in each eye (OU). Slit-lamp biomicroscopy revealed subretinal fluid inferotemporal to the foveal center OS. Fluorescein angiography (FA) demonstrated extrafoveal classic CNV OS (Fig. 1).

Argon laser photocoagulation of the well-demarcated extrafoveal CNV lesion was discussed. The patient did not want absolute scotoma in the treated area.
Photodynamic therapy with verteporfin was performed OS in a standard fashion, followed by an intravitreal injection OS of 4 mg triamcinolone (40 mg/mL Kenalog; Bristol-Myers Squibb, New York, NY).

In 1 month, best-corrected visual acuity was 20/32 OS. The IOP was 17 mmHg OS. Slit-lamp biomicroscopy demonstrated resolution of subretinal fluid. Triamcinolone was present in the inferior vitreous. FA demonstrated decreased leakage OS.

Six months later, best-corrected visual acuity improved to 20/25 OS. IOP was 20 mmHg OS. The mild nuclear sclerosis was unchanged. Slit-lamp biomicroscopy demonstrated a pigmented scar inferotemporal to the foveal center OS. No subretinal fluid, hemorrhage, or lipid were noted. Angiography demonstrated no evidence of recurrent CNV OS (Fig. 2).

The examination OS was unchanged 9 months following treatment.

COMMENT

Argon laser photocoagulation is currently the standard of care for eyes with juxtafoveal and extrafoveal well-demarcated classic or occult CNV due to neovascular AMD (3,4). The rate of recurrent CNV following argon laser is high (3,4).

The efficacy of PDT and intravitreal triamcinolone in treating juxtafoveal or extrafoveal CNV is unknown. In fact, little data is available on the use of PDT alone for juxtafoveal or extrafoveal lesions. Frennesson evaluated PDT in 30 eyes with juxtafoveal CNV and varied lesion classification. At 12 months, leakage stopped in 80% after a mean 3.3 retreatments. Visual acuity remained stable in 63.7% and remaining patients experienced a loss of at least three lines (5).

Recent studies have evaluated the efficacy of intravitreal triamcinolone with PDT for treatment of subfoveal CNV caused by AMD. Spaide and colleagues reported a case series of 26 eyes with subfoveal CNV in which those who received PDT with intravitreal triamcinolone gained an average of 2.5 lines of acuity at 12 month follow-up, whereas those who received PDT alone gained a mean of 0.44 lines (statistically insignificant). The most common adverse effect was elevated IOP, which was controlled topically in all eyes (2).

We report one case of extrafoveal CNV resulting from neovascular AMD successfully treated with PDT and intravitreal triamcinolone. At 9 months, there was no recurrent CNV. No retreatments were needed. IOP increased from 10 mmHg on presentation to 20 mmHg at 9 months; no IOP-lowering agents were needed.

PDT with intravitreal triamcinolone may be considered in eyes with extrafoveal CNV, and also juxtafoveal CNV, secondary to AMD.

REFERENCES