

# Bevacizumab for occult subfoveal neovascularization in age-related macular degeneration

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**PURPOSE.** *To report on the treatment of exudative age-related macular degeneration by intravitreal bevacizumab (Avastin).*

**METHODS.** *A 78-year-old patient experienced a progressive loss of visual acuity in her right eye due to an occult subfoveal neovascular membrane in age-related macular degeneration. She received an intravitreal injection of 1.5 mg bevacizumab.*

**RESULTS.** *Within 4 weeks after the injection, visual acuity improved from 0.40 to 0.60 with complete resolution of subretinal and intraretinal leakage and edema as shown on optical coherence tomography. Pre-existing metamorphopsias disappeared. Intraocular pressure remained in the normal range. During the follow-up, there were no signs of intraocular inflammation or any other intraocular pathology induced by the intravitreal injection.*

**CONCLUSIONS.** *Intravitreal bevacizumab may potentially be helpful in the treatment of exudative age-related macular degeneration and may deserve further evaluation. (Eur J Ophthalmol 2006; 16: 774-5)*

**KEY WORDS.** *Intravitreal bevacizumab, Avastin, Exudative age-related macular degeneration, Intraocular antiangiogenesis*

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## INTRODUCTION

Exudative age-related macular degeneration, one of the most frequent causes of marked loss of vision in the elderly population of Western countries, has been divided into several types depending on the level of subfoveal neovascularization. The occult type of subfoveal neovascularization is one of the most common forms, for which photodynamic therapy has been less helpful than for other types of neovascularization (1). Since monotherapy with intravitreal triamcinolone acetonide has not been shown to be markedly helpful to re-increase visual acuity in patients with exudative age-related macular degeneration with occult subfoveal neovascularization (2), and because pegaptanib as anti-angiogenic drug for intravitreal ap-

plication is not yet available in all countries (3), we examined the intravitreal use of another anti-angiogenic drug, bevacizumab, for treatment of exudative age-related macular degeneration.

## Case report

A 78-year-old patient experienced a progressive loss of visual acuity and metamorphopsias in her right eye. Visual acuity was 0.40. Ophthalmoscopy, fluorescein angiography, and optical coherence tomography revealed exudative age-related macular degeneration with subfoveal occult neovascularization as the cause of the visual impairment (Fig. 1). Under topical anesthesia, the patient received an intravitreal injection

tion of 1.5 mg bevacizumab in 0.3 mL, which was transconjunctivally injected into the vitreous cavity. The patient was fully informed about the experimental character of the treatment and had signed an informed consent. Within 4 weeks after the injection, visual acuity increased from 0.40 to 0.60. Pre-existing metamorphopsias disappeared. Optical coherence tomography showed complete resolution of the intraretinal and subretinal edema. Intraocular pressure measured 8 mmHg, similar to the pre-injection value of 12 mmHg. During the follow-up, including examinations during the first days after the injection, there were no signs of intraocular inflammation or any other unwanted change attributable to the injection.

## DISCUSSION

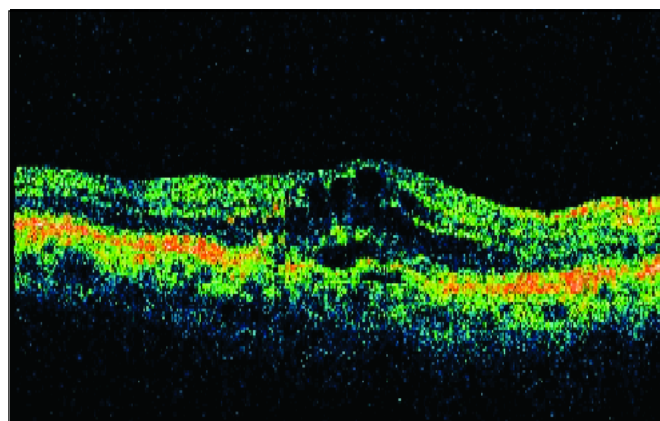
Confirming previous reports by Rosenfeld and colleagues (4, 5), the clinical course of the patient presented may suggest that intravitreal bevacizumab may potentially be helpful in the treatment of exudative age-related macular degeneration with subfoveal occult neovascular membranes. The results may suggest that intravitreal bevacizumab may warrant further evaluation with respect to its safety and efficacy in the treatment of exudative age-related macular degeneration.

*Proprietary interest: None.*

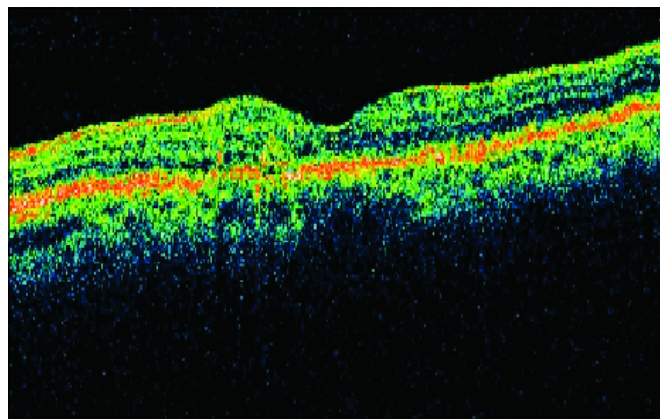
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**Fig. 1** - Optical coherence tomogram showing the subfoveal fluid accumulation and intraretinal edema due to a subfoveal occult neovascular membrane in exudative age-related macular degeneration prior to therapy.



**Fig. 2** - Optical coherence tomogram showing a complete resolution of subretinal fluid and intraretinal edema 4 weeks after intravitreal injection of 1.5 mg bevacizumab in a patient with exudative age-related macular degeneration and subfoveal occult neovascular membrane.