

Ophthalmology Times®

All the Clinical News in Sight

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Anti-VEGF drug expands options in treating AMD

By Nancy Groves

Reviewed by Lawrence J. Singerman, MD

Las Vegas—The investigational drug pegaptanib sodium (Macugen, Eye-tech Pharmaceuticals) has been shown to stabilize and improve vision and showed effectiveness against all three subtypes of lesions involved in wet age-related macular degeneration (AMD), according to **Lawrence J. Singerman, MD**.

In a trial involving about 1,200 patients, patients in three treatment groups had significantly less disease progression than patients receiving a sham treatment, and benefits were seen in all lesion types, said Dr. Singerman. He presented findings from the VEGF Inhibition Study in Ocular Neovascularization here at the Macula Society's 27th annual meeting.



Dr. Singerman

See *Anti-VEGF* on page 36

Cataract and glaucoma procedure

Careful preop exam vital to combined surgery

By Lynda Charters

Reviewed by James C. Tsai, MD

Anaheim, CA—"Careful preoperative evaluation of patients and appropriate perioperative and postoperative management are needed to modulate the healing response effectively and maximize the success rate of combined cataract and glaucoma surgery," said **James C. Tsai, MD**, at the American Academy of Ophthalmology annual meeting.



Dr. Tsai

"The long-term outcome of combined cataract and glaucoma surgery is not as favorable as that of primary trabeculectomy, and many studies have shown that the mean IOP reduction is significantly less with phaco-trabeculectomy compared with that of trabeculectomy alone," said Dr. Tsai, associate professor of ophthalmology, Columbia

University, and director of the glaucoma division, Harkness Eye Institute, New York.

"In addition, after combined surgery, studies have reported that there is prolonged anterior chamber inflammation and increased flare even after 3 months postoperatively," he added.

An important consideration is the types of medications used preoperatively.

Dr. Tsai advised consideration of whether sympathomimetic and other topical drugs that induce inflammation should be discontinued prior to surgery and also whether an antiproliferative agent, a topical non-steroidal anti-inflammatory medication, or

an oral steroid should be prescribed in the perioperative period.

"Clinical signs that I look for include evidence of previous and/or concurrent anterior chamber inflammation, significant conjunctival injection, or patient characteristics associated with a high risk of bleb failure (such as preoperative conjunctival scarring)," Dr. Tsai said. "In patients with recurrent active uveitis, oral and/or intravenous steroids can be administered in the preoperative and/or intraoperative period.

"Options including administration of topical and oral non-steroidal agents and even

See *Combined* on page 54

Tissue preservation

Optical zone may need enlarging in some cases

By Julia Talsma

Senior Editor

Reviewed by Paolo Vinciguerra, MD

Anaheim, CA—The functional optical zone in refractive patients, which differs from the ablation zone, may need to be enlarged under certain circumstances, said **Paolo Vinciguerra, MD**, chairman, Istituto Clinico Humanitas Rozzano, Milano, Italy.

Three indications for optical zone enlargement are the optical zone is smaller than the pupil, the optical zone is reduced by spherical aberration, or the patient is experiencing visual symptoms, such as glare or halos, said Dr. Vinciguerra at the American Academy of Ophthalmology refractive subspecialty day meeting.

Physicians need to understand that the ablation zone size is not necessarily the same size as the optical zone size, Dr. Vinciguerra explained.

See *Optical zone* on page 44

special section

dry eye

Therapeutics in the line of defense

Starts on Page 18

A prospective study

Computer users find relief with lubricating eye drop

Visual discomfort after prolonged computer use soothed with new over-the-counter product

By Robert T. Lin, MD

Special to Ophthalmology Times

As dependence on computers continues to grow, an increasing number of people seek medical attention for eye-strain, blurred vision, ocular dryness, and ocular fatigue.

These problems are more noticeable with computer tasks than other near work because flashing pixels form letters on the screen, rather than solid images, resulting in repetitive stress injury of the eyes. Blinking frequency decreases, contributing to evaporation of tears and resulting in dryness. Ability to focus diminishes and vision becomes blurry.

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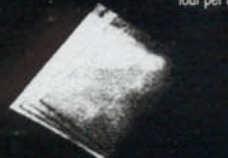
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F-OPS-40	0.4 mm	

*Dortzbach, Richard K. M.D. and Kikkawa, Don O., M.D., "Blowout Fractures of the Orbital Floor," p.217 in Stewart, William B., M.D., Ed., Surgery of the Eyelid, Orbit, and Lacrimal System, Vol. 3, 1995.

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Table 1 Total symptom score (averaged across days 1 to 5)

	Optizen (n = 52)	Placebo (n = 52)	p-value ¹
Pre-treatment day 1	7.0 (0.7) ²	7.3 (0.7)	0.70
Pre-treatment (excluding day 1)	5.9 (0.2)	6.7 (0.2)	0.01
5 min. after dose 1	3.6 (0.2)	4.3 (0.2)	0.007
5 min. after dose 2	2.9 (0.2)	3.5 (0.2)	0.007
End of work day	2.9 (0.2)	3.6 (0.2)	0.01

¹ Repeated measures analysis of variance, adjusting for day and for which treatment was taken the first week. ² Least-square means (se)

OT Graphic

Ophthalmology Times / Source: Robert T. Lin, MD

Computer vision syndrome (CVS) can be minimized with proper ergonomic design of computer and desk space, proper workplace lighting, and artificial tears solutions. Studies have shown a significant improvement in patients' subjective feelings of dryness and grittiness in eyes treated with artificial tears. Tear substitutes had no influence on visual acuity and were safe and well tolerated.

A randomized, placebo-controlled, cross-over design prospective study of 52 patients compared the effects of a new over-the-counter lubricating eye-drop solution (OptiZen, Innozen Inc.) versus a placebo eye drop solution of purified water with buffered pH in relieving visual discomfort symptoms due to prolonged computer video display terminal (VDT) use.

Patients who used a computer a minimum of 5 hours per weekday and had moderate eye irritation (red, watery, or dry eyes), fatigue (tired, achy, heavy eyes), or difficulty focusing due to computer use were recruited.

Patients who were pregnant, smoked, had eye allergies, used over-the-counter eye drops, or wore contact lenses were excluded. Patients were randomly assigned so that half would use OptiZen for 5 consecutive days with a 2-day washout period then the placebo for 5 days, and half would take the placebo first then the lubricating eye drop. All subjects were given the Experimental Subject's Bill of Rights and gave informed consent before the study.

One or two drops were instilled after 4 hours at the computer and one dose 6 hours after computer use. Subjects scored the level of discomfort of dry eye symptoms each day prior to the first dose of medication, 5 minutes after the dose, and again at the end of the workday.

The symptoms included: eye irritation; eye strain; blurred vision; red eye; dry eye;

eye fatigue; difficulty focusing; and overall eye discomfort.

The following rating scale was used: 0 = I am not having this symptom; 1 = I feel slightly uncomfortable; 2 = I feel slightly to moderately uncomfortable; 3 = I feel moderately uncomfortable; 4 = I feel moderately to severely uncomfortable; 5 = I feel severely uncomfortable; 6 = I feel the worst pain imaginable.

The results were analyzed, adjusting for treatment day and for which treatment was taken during the first week. Least-squares means and standard errors were reported for the symptom scores. Table 1 shows the total symptom score averaged across days 1 to 5 and adjusts for which treatment was taken during the first week.

At the beginning of the study, there were no differences reported between OptiZen and placebo for the day 1 pre-treatment score (p = 0.70). Averaged over

all treatment days, the lubricating eye drop was found to be more effective in reducing symptom severity. There was immediate benefit from the lubricated drop on day 1 for all measures, and it was more effective in reducing eye irritation, eye strain, red eye, dry eye, and overall eye discomfort. OT



In a study comparing the effects of OptiZen versus a placebo eye drop, the new over-the-counter lubricating eye drop was found to be more effective in reducing symptom severity due to prolonged computer use.
(Photo courtesy of Innozen Inc.)

FYI
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Dr. Lin is clinical instructor in ophthalmology, USC School of Medicine, and director, 3D Medical Center. He is a paid consultant for Global Clinical Inc. (www.GlobalClinical.com), which designed and developed the study.