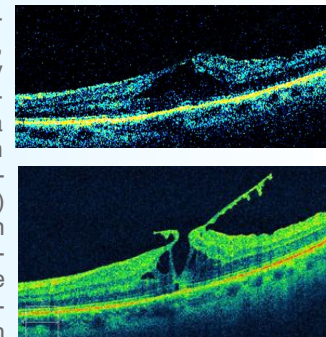


diagnostics

HIGH DEFINITION OPTICAL COHERENCE TOMOGRAPHY (HD-OCT). Not all OCT's are alike. The Cirrus HD-OCT instrument uses spectral domain technology to capture high resolution volumetric (3D) and high definition line scans of the retina for precise detail of retinal tissue and pathology. Line scanning laser ophthalmoscope (LSLO) live video allows for specific targeting of pathology or anatomy of interest, and creates high quality black-and-white fundus images. To the top right is a conventional Time Domain OCT (TD-OCT) image of vitreomacular traction (VMT) and the higher resolution Spectral Domain counterpart (bottom right). Subtle VMT can be difficult to appreciate on clinical exam and is sometimes hard to document on conventional OCT imaging. In this instance, the TD-OCT only suggests macular edema and a modest epiretinal membrane. Quite often the only abnormality is a subtle increase in central macular thickness on the macular topography map. However, with HD-OCT we can capture these vitreomacular interface changes at an earlier stage and also follow this dynamic condition over time.



Welcome

to the inaugural edition of
OCRETINAquarterly
Orange County Retina's Newsletter

We are delighted to provide a platform that will serve to update the Southern California eye health community on Orange County Retina (OCR) services, clinical trials, and activities. We hope this will enhance cooperation and communication between OCR and the local medical community. As we enter an era of health care change and uncertainty, this will become even more important as medical care becomes increasingly more specialized. Future editions will feature "rotating editors" which will further showcase different aspects of our OCR family.

Mystery Case Contest

An interactive "Mystery Case" contest will challenge and entertain our colleagues and enhance communication between OCR and the Orange County eye health community. See Back Page for this issue's case.

Therapeutics/Diagnostics

Each edition will also highlight various novel therapeutics and diagnostic modalities. This issue features the newer high definition OCT devices that have quickly become the standard of care among retina practices.

Clinical Studies

With each OCR Newsletter, we will focus our attention on important recent clinical trials which may be relevant to your practice. This first edition will summarize and analyze the SCORE study, a pivotal trial that Orange County Retina participated in and which continues to influence our management of venous occlusive disease.

Website

Work on the updated OCR.com website is nearing completion! Check back with us on our next edition of the newsletter for further information on links and services.

Bogdan Alexandrescu, M.D. is a board-certified ophthalmologist who has been practicing with Orange County Retina for three years. Dr. Alexandrescu's education and training includes a B.S. in Biology at UCLA, M.D. degree at UCSD, internship at Harbor-UCLA, ophthalmology residency at Columbia University, and 2-year fellowship in vitreoretinal surgery at the University of California, Irvine. Dr. Alexandrescu has strong interests in the medical and surgical management of conditions such as complex retinal detachment, diabetic retinopathy, and age-related macular degeneration (AMD). He has also specialized and devoted a significant part of his practice towards the treatment of retinopathy of prematurity (ROP).

You can contact Dr. Alexandrescu via email at: balexandrescu@ocretina.com

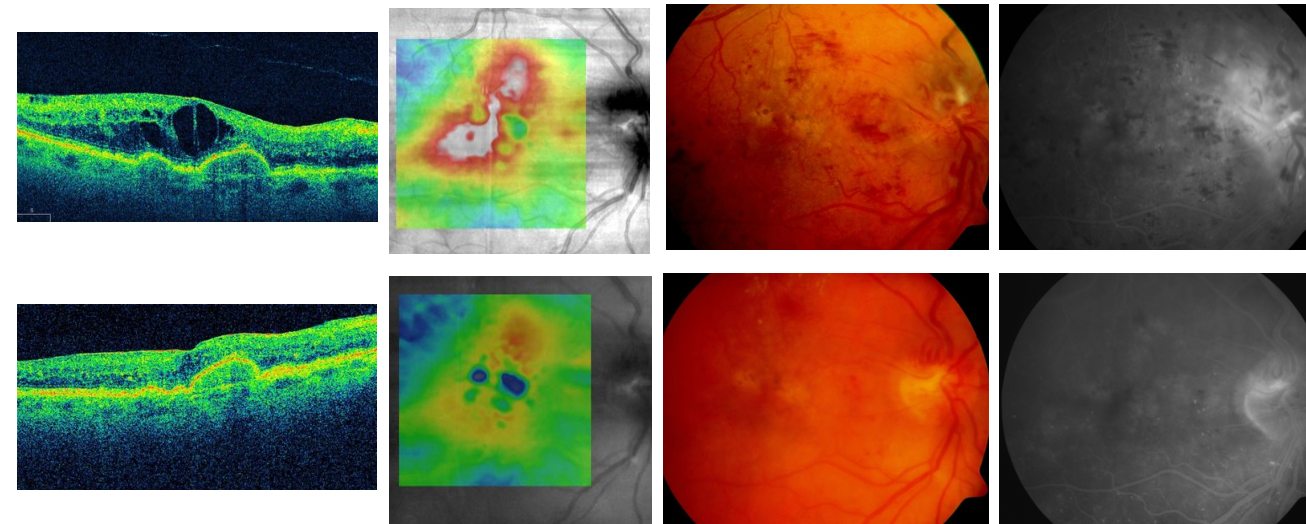
news

Ozurdex Receives FDA Approval

The Ozurdex dexamethasone intravitreal implant (0.7 mg) is now commercially available for the treatment of branch (BRVO) or central retinal vein occlusion (CRVO). The biodegradable polymer containing the dexamethasone is implanted through the pars plana via a 22-gauge single use applicator. The procedure should be familiar to surgeons performing "small gauge" vitrectomy surgery as the scleral entry approach is quite similar to trocar insertion. Ozurdex now adds to our armamentarium in treating RVO, joining intravitreal bevacizumab (Avastin), triamcinolone acetonide (Kenalog or Triescence), Macugen or Lucentis (in very select circumstances), and of course macular laser photocoagulation.

The following fundus photos, fluorescein angiogram and spectral domain OCT illustrate a clinical scenario in which Ozurdex may be considered. This 72-year-old woman presented with multiple retinal issues including macular edema secondary to CRVO, significant atrophic age-related macular degeneration (AMD), and preretinal fibrosis/epiretinal membrane (ERM). She was initially treated with intravitreal bevacizumab, but the positive effects with respect to macular edema and visual acuity were modest and short-lived. Intravitreal triamcinolone acetonide (Tries-

ence) provided more significant anatomic and functional improvement, but once again, the effects could not be maintained over a sufficient period of time. Consequently, Ozurdex was considered in an effort to achieve more effective long-term control. The Cirrus OCT images show a significant reduction of intraretinal cystic changes and overall central macular thickness vs. pretreatment scans. As expected, the small PED (pigment epithelial detachment) which is a feature of her atrophic AMD remains unchanged. Subjective metamorphopsia has improved



Diagnostic Imaging Pre-/Post-Ozurdex. HD-OCT, topographical map, fundus photo, and fluorescein angiogram pre-treatment (top row) and 1 month post-treatment (bottom row).

substantially and thus far, clinical response has outlasted prior therapy with both Avastin and Triescence. Ozurdex clinical trial data suggests efficacy up to 6 months following initial administration.

This patient was referred to Orange County Retina courtesy of Dr. Christina Leung and Dr. Ena Kariya.

staff spotlight

Monika Stanton
public relations liaison

Monika Stanton has been an integral part of our Orange County Retina family for four years and has recently been promoted to Public Relations Liaison. In this



[Monika] is responsible for helping coordinate community lectures and seminars, maintaining ongoing communication and feedback with our referring doctors and their offices.

In her new position, she is responsible for helping coordinate community lectures and seminars, as well as maintaining ongoing communication and feedback with our referring doctors and their offices. Monika strives to continually monitor the patient experience from initial scheduling, doctor examination, any procedures or testing performed, in order to ensure complete patient satisfaction!

Please contact **Monika** with any comments or suggestions.
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monika@ocretina.com

studies

SCORE BRVO/CRVO Results

We'll start by highlighting the results of the NEI-supported SCORE (Standard Care vs. Corticosteroid for Retinal Vein Occlusion) study. The BRVO (branch retinal vein occlusion) portion of the trial included 411 patients while the CRVO

though the three-year results included a smaller number of patients.

However, patients who received either dose of corticosteroid medication were more likely to develop cataracts or elevated intraocular pressure than patients who received laser treatment. Consequently, patients in the 4 mg group underwent more cataract surgeries than patients in the other groups throughout the study. Laser treatment appeared to have fewer negative side effects for patients.

Intravitreal corticosteroids provide effective management of RVO-associated macular edema but at the cost of glaucoma and cataract progression... Macular laser photocoagulation remains particularly suitable for long-term management of macular edema from BRVO with fewer ocular side effects.

(central retinal vein occlusion) portion included 271 patients. Within each trial, patients were treated with either standard of care therapy (grid macular laser photocoagulation), triamcinolone 1 mg, or triamcinolone 4 mg at enrollment and every 4 months thereafter based on the status of their disease.

27% of SCORE CRVO patients in the 1 mg group and 26% of patients in the 4 mg group experienced a substantial visual improvement of 3 or more lines at one year. Only 7% of patients in the observation group improved to a similar degree. Patients in the steroid treatment groups were five times more likely to have a substantial visual gain at one year.

On the other hand, 29% of SCORE BRVO patients in the laser treatment group, 26% of patients in the 1 mg steroid injection group, and 27% of patients in the 4 mg injection group experienced a substantial visual gain of three or more lines on a vision chart at one year. These results appeared to last up to three years,

The SCORE CRVO trial showed that patients with CRVO-associated macular edema benefit substantially from intravitreal steroid therapy. These patients are more likely to experience visual gain and less likely to suffer vision loss from macular edema.

The SCORE BRVO study showed that laser treatment and corticosteroid injections have a similar positive impact on vision for patients who have macular edema due to BRVO. However, despite an initial impressive visual gain with steroid treatment, long-term visual results with laser treatment appeared to be more favorable. In addition, laser treatment led to fewer ocular complications. Based on these results, laser photocoagulation remains a preferred mode of therapy in the management of BRVO macular edema. A future newsletter will feature the BRAVO trial which explores the role of anti-VEGF (Vascular Endothelial Growth Factor) therapy in the management of RVO.



CURRENT STUDIES

Orange County Retina participates in clinical trials to offer our patients next-generation retinal therapies.

AGE-RELATED MACULAR DEGENERATION
GlaxoSmithKline Study 852, Phase IIb
Dose-ranging study of Pazopanib eye drops vs. Lucentis for AMD

Genentech HARBOR, Phase III
Lucentis 0.5mg vs. Lucentis 2.0mg

Regeneron VIEW 1, Phase III
Safety and Efficacy of VEGF-Trap vs. Lucentis

Allergan 206207-019, Phase II
Evaluation of combination Ozurdex and Lucentis

Ophotech OPH3000, Phase I
Safety and efficacy of volociximab

Novartis DENALI, Phase III
Efficacy of Lucentis vs. Lucentis with Photodynamic Therapy

DIABETIC RETINOPATHY
Alimera FAME, Phase III
Evaluation of Extended-release Fluocinolone for Diabetic Macular Edema

Allergan 206207-012, Phase III
Evaluation of Ozurdex vs. Laser in subjects with Diabetic Macular Edema

Allergan 206207-018, Phase II
Evaluation of Ozurdex to treat Diabetic Macular Edema in Vitrectomized Eyes

Regeneron Da Vinci, Phase III
Evaluation of VEGF-Trap with Laser to treat subjects with Diabetic Macular Edema

Vitreoretinal Technologies, Phase III
Evaluation of Vitresol for inducing Posterior Vitreous Detachment in subjects with Non-Proliferative Diabetic Retinopathy

COLLABORATIVE TRIALS
Grunenthal KF0151Y/10, Phase IIb
Evaluation of Axomadol in subjects with Diabetic Peripheral Neuropathy

Endo EN3324-201, Phase IIb
Evaluation of Axomadol in subjects with Chronic Low Back Pain

Merck MK007-01, Phase III
Safety followup of Overactive Bladder treatment

If you would like more information about these trials, please contact:
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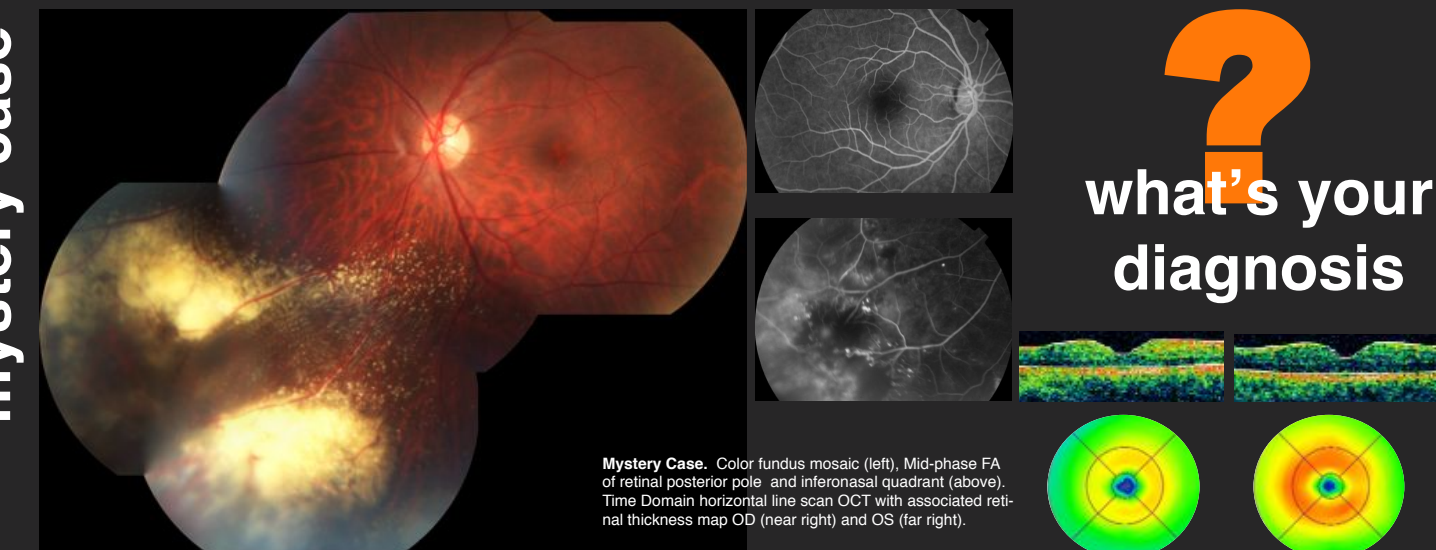
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949.581.3618

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Fullerton, CA 92835
714.451.0801

mystery case



Mystery Case. Color fundus mosaic (left), Mid-phase FA of retinal posterior pole and inferonasal quadrant (above), Time Domain horizontal line scan OCT with associated retinal thickness map OD (near right) and OS (far right).

what's your diagnosis

This 32-year-old healthy male with a history of moderate myopia presented with unilateral "increasing floaters and blurred vision" of several months' duration. Dilated exam of the left eye (OS) showed sectoral midperipheral intraretinal hemorrhages and extensive intraretinal and subretinal exudates. Vascular tortuosity and remodeling was evident as well. Fluorescein angiography (FA) revealed unilateral peripheral inferonasal quadrant ischemia along with saccular dilations and hyperfluorescent "bulbs". Fluorescein "leakage" was present. The fellow eye was normal (OD). Optical coherence tomography (OCT) demonstrated mild left macular thickening. Systemic workup was negative for hypertension, diabetes, and renal disease.

Email your response to balexandrescu@ocretina.com

The correct diagnosis and clinical followup will be revealed on the next edition of OC Retina Quarterly. The first correct responder will receive a prize and be featured in our next newsletter.

This patient was referred to Orange County Retina courtesy of Peter Josen, M.D.