

AMERICAN JOURNAL OF OPHTHALMOLOGY®

VOLUME 148

**THE AS-NEEDED TREATMENT STRATEGY FOR CHOROIDAL NEOVASCULARIZATION:
A FEEDBACK-BASED TREATMENT SYSTEM**

Spaide

ACANTHAMOEBA KERATITIS ASSOCIATED WITH CONTACT LENS WEAR IN SINGAPORE

Por, Mehta, Chua, and Co-Authors

VITREOUS PENETRATION OF ORALLY ADMINISTERED FAMCICLOVIR

Chong, Johnson, Huynh, and Co-Authors

**VITREOMACULAR ADHESION IN ACTIVE AND END-STAGE AGE-RELATED
MACULAR DEGENERATION**

Robison, Krebs, Binder, and Co-Authors

EFFECTIVENESS OF TREATMENTS FOR METASTATIC UVEAL MELANOMA

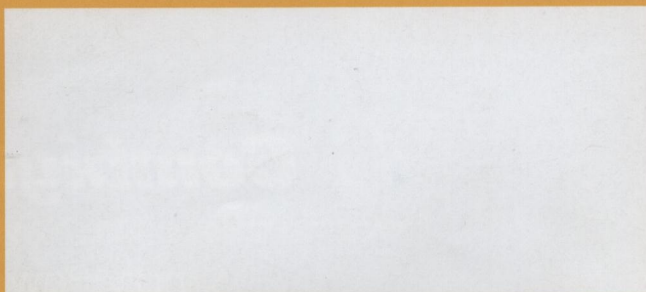
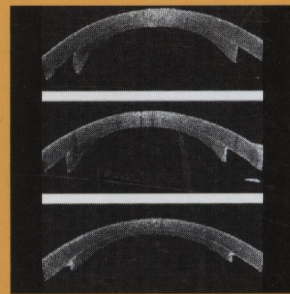
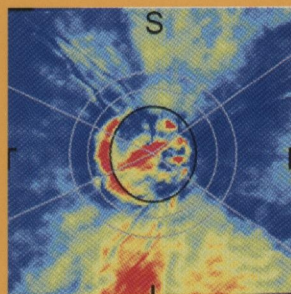
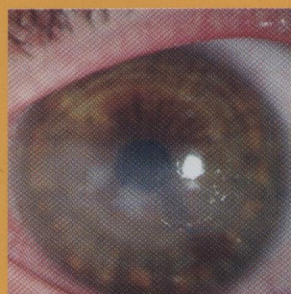
Augsburger, Corrêa, and Shaikh

**SPEED OF TELEMEDICINE vs OPHTHALMOSCOPY FOR RETINOPATHY OF
PREMATURITY DIAGNOSIS**

Richter, Sun, Lee, and Co-Authors

**VISUAL PERFORMANCE AFTER IMPLANTABLE COLLAMER LENS IMPLANTATION AND
WAVEFRONT-GUIDED LASER IN SITU KERATOMILEUSIS FOR HIGH MYOPIA**

Igarashi, Kamiya, Shimizu, and Komatsu



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ISSN 0002-9394

AMERICAN JOURNAL OF OPHTHALMOLOGY®

ISSN 0002-9394 • VOL. 148, NO. 6 DECEMBER 2009

CONTENTS

EDITORIALS

• 815 The clinical site-reading center partnership in clinical trials. *Ronald P. Danis*

• 818 Rationale for radiotherapy in thyroid eye disease. *Julian D. Perry and Steven E. Feldon*

SERIES ON STATISTICS

• 820 Missing data: what a little can do, and what researchers can do in response. *Thomas R. Belin*

PERSPECTIVE

• 823 Molecular prognostic testing and individualized patient care in uveal melanoma. *J. William Harbour*
To improve the survival of patients with uveal melanoma, accurate prognostic tests are needed to identify patients at high-risk of metastasis who might benefit from adjuvant systemic therapy to delay or prevent the onset of metastatic disease. This article provides a critical assessment of the many molecular prognostic tests that currently are in use, and encourages multi-institutional cooperation to develop centralized testing facilities that provide high-quality standards and worldwide access to this technology.

ORIGINAL ARTICLES

• 830 Comparison between femtosecond laser-assisted sub-Bowman keratomileusis vs laser subepithelial keratectomy to correct myopia. *Laura de Benito-Llopis, Miguel A. Teus, Raquel Gil-Cazorla, and Pilar Drake*
Femtosecond laser-assisted sub-Bowman keratomileusis (FSBK) and laser subepithelial keratectomy with adjunctive mitomycin C seem to provide similar results when

performed to correct myopia. Nevertheless, visual rehabilitation is much faster with FSBK.

• 837 Visually significant and nonsignificant complications arising from Descemet stripping automated endothelial keratoplasty. *Carolyn Y. Shih, David C. Ritterband, Shaina Rubino, Pat-Michael Palmiero, Anisha Jangi, Jeffrey Liebmann, Robert Ritch, and John A. Seedor*

The article is a review of all complications encountered during the first 126 Descemet stripping automated endothelial keratoplasties done at one tertiary care center. Complications ranged from permanently decreased vision such as endophthalmitis to more common, but visually insignificant, complications such as donor dislocation, decentration, and peripheral folds.

• 844 Use of anterior segment optical coherence tomography to study corneal changes after collagen cross-linking. *Muriël Doors, Nayyirih G. Tahzib, Fred A. Eggink, Tos T. J. M. Berendschot, Carroll A. B. Webers, and Rudy M. M. A. Nuijts*

In 29 eyes with progressive keratoconus, all clinical parameters remained stable from 3 to 12 months after the corneal cross-linking treatment without clinically significant side effects. Anterior segment optical coherence tomography is a useful device to detect the corneal cross-linking stromal demarcation line. This line is a direct clinical sign of corneal cross-linking and can be found within the first month after the treatment, with it being visible most clearly 1 month after corneal cross-linking.

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AMERICAN JOURNAL OF OPHTHALMOLOGY®

ISSN 0002-9394 • VOL. 148, NO. 6 DECEMBER 2009

CONTENTS

Continued from page A4

- **852 Vision-related function after scleral lens fitting in ocular complications of Stevens-Johnson syndrome and toxic epidermal necrolysis.** *Bénédicte Tougeron-Brousseau, Agnès Delcampe, Julie Gueudry, Lisa Vera, Serge Doan, Thanh Hoang-Xuan, and Marc Muraine*

Gas-permeable scleral contact lens wear provides an additional effective strategy in individuals with chronic ocular surface disease associated with toxic epidermal necrolysis or Stevens-Johnson syndrome. In particular, scleral lens placement seems to allow for improvements in their quality of life.

- **860 Economic appraisal of the Boston ocular surface prosthesis.** *Donald S. Shepard, Moaven Razavi, William B. Stason, Deborah S. Jacobs, Jose A. Suaya, Mark Cohen, and Perry Rosenthal*

This study performed an economic appraisal of the Boston Ocular Surface Prosthesis in patients with corneal ectasia, irregular astigmatism, or ocular surface disease based on 69 recipients with 6-month visual functioning follow-up data. On average, each fitted patient cost \$11 841, and quality of life improved by 0.10 quality-adjusted life years (QALYs) per year. The device was cost effective, with a cost-effectiveness ratio of \$24 900 per QALY and a benefit-cost ratio of 4.0 to 1.

- **869 Comprehensive analysis of complement factor H and LOC387715/ARMS2/HTRA1 variants with respect to phenotype in advanced age-related macular degeneration.** *Michael T. Andreoli, Margaux A. Morrison, Ben J. Kim, Ling Chen, Scott M. Adams, Joan W. Miller, Margaret M. DeAngelis, and Ivana K. Kim*

This study of advanced age-related macular degeneration (AMD) represents a comprehensive analysis of the phenotypic consequence of genetic variation at the complement

factor H gene and age-related maculopathy susceptibility 2/HtrA serine peptidase 1 gene (*LOC387715/ARMS2/HTRA1*) loci. This analysis demonstrates several novel associations between single-nucleotide polymorphisms at the *LOC387715/ARMS2/HTRA1* locus on chromosome 10q26 and specific phenotypic manifestations of neovascular AMD.

- **875 Bevacizumab vs ranibizumab for age-related macular degeneration: early results of a prospective double-masked, randomized clinical trial.** *Manju L. Subramanian, Steven Ness, Gelareh Abedi, Ednan Ahmed, Mary Daly, Edward Feinberg, Sumit Bhatia, Payal Patel, Maileah Nguyen, and Antoun Houranieh*

This study describes early results of a prospective, randomized, controlled, double-masked, single-center clinical trial comparing bevacizumab with ranibizumab at the Veterans Affairs Boston Healthcare System. A total of 20 patients completed the 6-month follow-up visit. Thirteen subjects received bevacizumab and 7 received ranibizumab. Visual outcomes suggest that bevacizumab appears to be as effective as ranibizumab when used as monotherapy for the treatment of age-related macular degeneration.

- **883 Intravitreal vascular endothelial growth factor and hypoxia-inducible factor 1a in patients with proliferative diabetic retinopathy.** *Xiaoqin Wang, Guibo Wang, and Yi Wang*

This study shows that intravitreal levels of vascular endothelial growth factor (VEGF) and hypoxia-inducible factor 1a (HIF-1a) are increased and mutually related in diabetic patients with proliferative diabetic retinopathy (PDR). Intraocular production of VEGF and HIF-1a are important in angiogenesis of retina of patients with PDR.

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CONTENTS

Continued from page A5

- **890 Excess lead in the neural retina in age-related macular degeneration.** Jay C. Erie, Jonathan A. Good, and John A. Butz

A higher lead level in the neural retina is associated with the presence of age-related macular degeneration in human donor eyes. Although it is not possible to know if this relationship is truly one of cause and effect, accumulated lead may constitute a larger risk to retinal health than previously thought.

- **895 Aqueous vascular endothelial growth factor as a predictor of macular thickening following cataract surgery in patients with diabetes mellitus.** M. Elizabeth Hartnett, Nicholas Tinkham, Lauren Paynter, Pete Geisen, Pinchas Rosenberg, Gary Koch, and Kenneth L. Cohen

Aqueous vascular endothelial growth factor was significantly associated with a clinically meaningful change in central subfield thickness of optical coherence tomograms (OCTs) in diabetic patients 1 month following cataract surgery. Accounting for the error in measurement is important when obtaining OCTs. These findings may be beneficial in designing future clinical trials to test agents to reduce macular edema following cataract surgery in patients with diabetes.

- **902 The associations between blood levels of homocysteine, folate, vitamin B₁₂, and retinal vascular caliber.** Bamini Gopinath, Jie Jin Wang, Victoria M. Flood, George Burlutsky, Tien Y. Wong, and Paul Mitchell

This study reports on findings from a population-based cohort and documents a significant cross-sectional association between high circulating levels of homocysteine and retinal arteriolar narrowing. The effects of homocysteine

and its metabolism components on retinal vascular calibers are not well established. Hence, these findings address a gap in the literature and provide evidence that hyperhomocysteinemia may have an effect on the microcirculation, which may be a possible pathway linking homocysteine to cardiovascular disease.

- **910 Comparison of prevalence of dengue maculopathy during two epidemics with differing predominant serotypes.** Elaine Chee, Joanne Lesley Sims, Aliza Jap, Ban Hock Tan, Helen Oh, and Soon-Phaik Chee

No maculopathy was detected in the 2007 epidemic, in which the predominant serotype was dengue virus-2, compared with a prevalence of 10% during the 2005 epidemic, in which the predominant serotype was dengue virus-1. The 2 groups also differed in terms of age and liver damage. These differences probably are a result of infection by a different viral serotype as well as a difference in the immune response of the host.

- **914 Unilateral retinal pigment epithelium dysgenesis.** Salomon Y. Cohen, Anne E. Fung, Ramin Tadayoni, Pascale Massin, Irene Barbazetto, Axelle Berthout, Philippe Gayet, Isabelle Meunier, and Lawrence A. Yannuzzi

The present study reports additional data on a unique pattern of the fundus previously described, in 2002, as unilateral, idiopathic leopard-spot lesion of the retinal pigment epithelium. New cases, optical coherence tomography data, and specific complications and associated lesions are reported. Furthermore, a unique autofluorescence pattern is described, with a very dark image inverted relative to fluorescein hyperfluorescence. Based on this updated study, a name change to "unilateral retinal pigment epithelium dysgenesis" is suggested.