Matured milk was found not to have any inhibitory effect on these causal organisms, whereas colostrums had an inhibitory effect on *Staphylococcus aureus*, *E. coli*, and *Pseudomonas aeruginosa* organisms. This effect was short lived, however, and showed no effect on all other organisms.

**Conclusion**: Due to this short-term effect of colostrums on only some of the causal organisms, colostrums alone may not be effective in combating *ophthalmia neonatorum*. Neonates with *ophthalmia neonatorum* should be taken to the hospital and appropriate treatment should be administered to them.

# **POSTER 76**

## A Comparison of Systane® Lubricant Eye Drops Versus Refresh Tears® Lubricant Eye Drops When Used as Supportive Therapy with Restasis® Ophthalmic Emulsion

Stephen Cohen, O.D.,<sup>a</sup> Mike Christensen, O.D., Ph.D.,<sup>b</sup> Frank Akers, O.D.,<sup>c</sup> John Rinehart, O.D.,<sup>d</sup> Ken Sall, M.D.,<sup>e</sup> and Chuck Hearn<sup>b</sup>

<sup>a</sup>Private practice, 10900 North Scottsdale Road, Suite #403, Scottsdale, Arizona 85254; <sup>b</sup>Alcon Laboratories, Inc. (R6-15), 6201 South Freeway, Fort Worth, Texas 76134; <sup>c</sup>Private practice, 1134 East University Drive, Suite 111, Mesa, Arizona 85203; <sup>d</sup>Private practice, 13260 North 94th Drive, Suite 420, Peoria, Arizona 86381; and <sup>e</sup>Sall Eye Research Medical Center, 9604 East Artesia Boulevard, Suite 203, Bellflower, California 90706

- **Background**: Evaluate the efficacy/compatibility of two marketed artificial tears in relieving dry eye signs/symptoms when used as supportive therapy to a cyclosporine-based ophthalmic emulsion.
- **Methods**: Sixty evaluable patients, by intent-to-treat analysis, took part in this randomized, investigator masked, parallel study of 6-months duration. Enrollment criteria: corneal staining of > 3 (NEI grid), Schirmer without anesthesia of < 7 mm, and subjects had to answer that they needed artificial tears at least "some of the time." Subjects were randomized to one of three treatment (Tx) groups:

Treatment 1: Restasis<sup>®</sup> (0.05% cyclosporine) b.i.d. w/Systane<sup>®</sup> (PEG 400/propylene glycol w/HP-Guar as gelling agent)used a minimum of 1/day as supportive therapy.

*Treatment 2*: Restasis<sup>®</sup> b.i.d. w/Refresh Tears<sup>®</sup> (carboxymethylcellulose) used a minimum of 1/day as supportive therapy.

*Treatment 3*: Systane<sup>®</sup> used alone q.i.d. Signs/symptoms were measured at Days -7, 0, 7, 14, 28, 42, 120, and 180.

**Results**: Statistical difference seen in favor of Tx1 (Restasis<sup>®</sup> + Systane<sup>®</sup>) vs. Tx2 (Restasis<sup>®</sup> + Refresh<sup>®</sup>) for greater reduction in corneal staining (p = 0.0048) and a trend (p = 0.0725) for increased TFBUT at 6 months. Schirmer showed nonsignificant increases from baseline at 6 months: Tx1 = 1.41; Tx2 = 2.15; Tx3 = 1.42 mm. Significant differences seen in favor of Tx1 vs. Tx2 for less

frequent ocular burning (p = 0.0210), stinging (p = 0.0314), grittiness (p = 0.0128), and dryness (p = 0.0132). Tx3 (Systane<sup>®</sup> alone) was better than Tx2 (Restasis<sup>®</sup> + Refresh<sup>®</sup>) for less frequent ocular burning (p = 0.0288), dryness (p = 0.0480), and scratchiness (p = .0294).

Conclusion: Artificial tears used as supportive therapy with Restasis<sup>®</sup> has significant indications for outcome measures. There were significant clinical advantages with Restasis<sup>®</sup> + Systane<sup>®</sup> vs. Restasis<sup>®</sup> + Refresh Tears<sup>®</sup>. There were no clinical or statistical differences seen between Restasis<sup>®</sup> + Systane<sup>®</sup> and Systane<sup>®</sup> used alone. Both supportive therapies were compatible with Restasis<sup>®</sup>.

(This study was sponsored by Alcon Research Limited, Fort Worth, Texas.)

# POSTER 77

## A Comparison of Performance Attributes Between a New Concept Artificial Tear and Systane® Lubricant Eye Drops

Mike Christensen, O.D., Ph.D., Marion Tudor, M.P.H., David Meadows, Ph.D., Jerry Stein, Ph.D., and Ralph Stone, Ph.D.

#### Alcon Research, Ltd., 6201 South Freeway, Fort Worth, Texas 76134-2099

- Background: The purpose of this study is to evaluate characteristics of a new artificial tear (Concept Tear) vs. Systane<sup>®</sup> Lubricant Eye Drops under acute dosing.
- Methods: Two studies were conducted that compared attributes of the Concept Tear vs. Systane. The Concept Tear is multi-dose with buffer ingredients that work in concert to provide preservative efficacy without a traditional preservative. The Concept Tear contains PEG-400 and propylene glycol as demulcents and HP-Guar as a gelling agent.

Study 1: Twenty patients with dry eye were enrolled in this single-center, randomized, double-masked, twoperiod crossover study. Eligible patients had to have a diagnosis of dry eye and answer that they needed artificial tears at least "some of the time" due to dry eye. Drops were administered OU per randomization. Drop instillation comfort (10-pt. scale), overall acceptability (10-pt. scale), and 3-minute blur profile (50-pt. scale) comparisons were made.

Study 2: Sixty patients were enrolled in this single-center, randomized, double-masked, two-period crossover study. Eligible patients had to have Tear Film Break-Up Time (TFBUT) < 5 seconds and demonstrate a deficient Ocular Protection Index (TFBUT/Inter-Blink Interval). Treatment with 40  $\mu$ L of the assigned tear was administered OU. Treatment with 1  $\mu$ L of sodium fluorescein was administered, and TFBUT measured at 5, 10, 15, 20, 30, 45, and 60 min. post-drop instillation.

Results: Study 1: No statistically significant differences between Concept Tear and Systane<sup>®</sup> were seen for drop comfort (Concept Tear mean = 1.0; Systane<sup>®</sup> mean = 1.0); drop acceptability (Concept Tear mean = 1.0; Systane<sup>®</sup> mean = 0.8); or 3-minute blur profile (@ t0 Concept Tear Mean = 20.2; Systane<sup>®</sup> Mean = 21.5; both diminishing to < 0.1 @ 3 minutes). Study 2: TFBUT mean at baseline was 2.25. Comparisons between treatments showed that Concept Tear and Systane<sup>®</sup> were not statistically different (@ t5 Concept Tear Mean = 3.8; Systane<sup>®</sup> Mean = 4.4).

**Conclusions**: These studies demonstrated that Concept Tear was similar to Systane<sup>®</sup> under acute dosing conditions.

(This study was sponsored with grant support from Alcon Research, Ltd., and all authors are employees of Alcon Research, Ltd., Fort Worth, Texas.)

# **POSTER 78**

# Atypical Unilateral Painless Vision Loss in an Adolescent: A Case Report

Diane Calderon, O.D.

### Nova Southeastern University, College of Optometry, 3200 South University Drive, Ft. Lauderdale, Florida 33328

- **Background**: Unilateral painless vision loss can be very alarming for both the patient and clinician, especially when it involves a child or adolescent. Determining the correct diagnosis requires careful review of the child's ocular and medical history, as well as neuroimaging and blood testing, to rule out the more uncommon and often ominous etiologies.
- Case Report: A 16-year-old boy was brought to us with a chief symptom of decreased vision O.D. that began three days earlier and gradually worsened. The patient reported no eye pain or headache associated with the loss of vision. Ocular and systemic histories were unremarkable per patient and guardian. No use of medications or allergies reported. Best-corrected visual acuities were HM@1 ft O.D. and 20/20 O.S. Pupil testing revealed a positive afferent pupillary defect O.D. Extraocular muscle movements were full and unrestricted. Intraocular pressures were 17 mmHg O.D., 16 mmHg O.S. Blood pressure was 118/77 RAS. Humphrey visual-field testing revealed complete loss of vision O.D. and isolated points in the inferior arcuate and nasal fields O.S. Dilated fundus evaluation revealed prominent optic nerve head drusen OU, with no evidence of pallor or edema. The retinae appeared well perfused, with healthy vasculature OU.
- **Methods**: The patient was referred out to the local children's hospital for immediate CT, MRI, and blood workup. The final diagnosis was optic neuritis O.D. and a regimen of intravenous methylprednisone was initiated immediately. Nine months later, BCVAs were 20/25 O.D. and 20/20 O.S., with essentially complete resolution of visual-field loss O.D.
- **Conclusions**: Optic neuritis is an acute inflammatory process affecting the optic nerve that is rarely seen in patients under the age of eighteen. Although the diagnosis of optic neuritis seems logical, given the initial presenting symptoms, it is one that requires immediate neuro-imaging and blood testing to rule out other potentially serious neurological or systemic causes.

## **POSTER 79**

## Topiramate and Unilateral Granulomatous Uveitis

## Melissa Woodard, O.D.

## Reynolds Army Community Hospital, Fort Sill, Oklahoma, 4301 Mow-Way Road, Fort Sill, Oklahoma 73503

- **Background**: Topiramate is a new anti-epileptic agent, also used for the management of migraines. This medication has documented ocular complications, the most-severe being acute angle closure. Other complications include transient myopia, ciliary swelling, and suprachoroidal and uveal effusion. This case proposes a possible connection between topiramate and unilateral granulomatous uveitis.
- Methods: A 45-year-old woman was referred to me by her internist for a painful red eye. She had a long history of migraine headaches, and had initiated topiramate approximately seven weeks earlier. Her right eye was severely painful, injected, and photophobic. Examination revealed a mid-dilated pupil that was 80% synechied to the lens. She had open angles and +4 cells in the anterior chamber. The cornea was deposited with "muttonfat" granulomatous keratic precipitates. Her intraocular pressure was 9 mmHg. Vitreous and posterior poles were clear, and the left eye was completely unaffected.
- **Results**: Cyclopentalate was administered and soon the synechia began to break, so Cyclogyl® q.i.d. and PredForte every hour were prescribed. A stronger cyclplegic agent was avoided to prevent an acute angle closure. With permission of the internist, the patient was also advised to discontinue the topiramate. The next morning the patient was feeling much better, though a few synechiae remained, so they were broken by one dose of atropine. The standard uveitis panel of testing yielded no systemic findings and the patient has completely recovered with standard treatment for uveitis. She has discontinued the topiramate and has been uveitis-free for 15 months.
- **Conclusion**: Though there are no documented studies indicating a connection between unilateral granulomatous uveitis and topiramate, this patient appeared to have such a response. Most of the known ocular complications involve ciliary body problems, so it is conceivable that this type of inflammatory response is possible.

# **POSTER 80**

# Manifestations of Early Ocular Ischemic Syndrome

## Brad Kehler, O.D.

### Veterans Administration, 1711 Temple Avenue, Nashville, Tennessee 37215

**Background**: Ocular ischemic syndrome describes a variety of signs and symptoms resulting from inadequate oxygen perfusion to the eye secondary to blockage of the carotid arteries. Both the anterior and posterior segments can show significant changes from ocular ischemic syndrome, including neovascular glaucoma, anterior uveitis, dilated and beaded veins, and mid-peripheral blot retinal hemorrhages. The condition most commonly affects men above the age of 50 years with other ath-393