

mous epithelium. Conjunctival impression cytology shows enlarged and irregular keratinized epithelial cells. Goblet cells are also lost. When accompanied by nyctalopia, corneal melting, corneal and conjunctival xerosis, the syndrome is known as *xerophthalmia*.

Case Report: A 51-year-old black woman came to our clinic with a report of severe dry eyes. She was previously treated unsuccessfully with artificial tears q.i.d. Her medical history was unremarkable. Entrance tests were unremarkable. Her acuities were 20/20 O.D. and O.S. Her tears were filled with debris, and TBUT was reduced OU. The temporal bulbar conjunctiva revealed yellow, glistening lesions OU. Bitot's spots and conjunctival xerosis were diagnosed. We recommended she see her PCP for treatment of the vitamin A deficiency. An aggressive approach to topical lubrication therapy, with viscous artificial tears or ointment and vigilance from the optometrist, is required to ensure there is no corneal involvement, as the preventable disease has potential for significant visual loss. Retinal function can be established by ERG.

Conclusion: Bitot's spots are exquisitely responsive to vitamin A supplementation. A nonresponsive lesion may represent a persistent metaplastic change from a previous episode. Referral to a primary care physician is essential to establish and treat the underlying cause of the vitamin A deficiency. Bitot's spots may be present in recent immigrants or refugees from developing countries, but can also be indicative of liver, pancreatic, or intestinal disease, as well as gastrointestinal mal-absorption.

Poster 61

Bilateral Central Serous Chorioretinopathy in a Patient Using Oral Prednisone

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Background: Central serous chorioretinopathy (CSCR) is a detachment of the neurosensory retina at the macula, with possible concurrent pigment epithelial detachments (PEDs). It is more typical in men 20 to 50 years old, and most episodes are unilateral, idiopathic, and spontaneous in resolution. Atypical manifestations include patients more than 50 years old, bilateral occurrence, or chronic episodes. With these cases, other etiologies need to be ruled out, such as wet age-related macular degeneration, systemic lupus erythematosus, optic disk pits, choroidal metastasis, or systemic steroid use.

Case Report: TS, a 69-year-old man, came to our clinic with reports of blurry vision and glare. He had a history of pulmonary disorder, diabetes, and basal cell carcinoma. Medications included albuterol, metformin, and oral prednisone. He was previously diagnosed with amblyopia in the left eye. His corrected vision was 20/40 O.D. and 20/50 O.S. Amsler grid revealed mild metamorphopsia O.D., but normal O.S. Pupils, motilities, and visual fields were normal; biomicroscopy

showed mild cataracts in both eyes. A dilated fundus examination revealed bilateral, macular, serous detachments, and optical coherence tomography unveiled macular PEDs in both eyes. We referred TS to a retinal specialist for further evaluation. No active leakage was found with intravenous fluorescein angiography; with this, TS was diagnosed with CSCR secondary to chronic steroid use. Followup every 3 months was recommended, and his primary care physician was consulted for possible reduction of prednisone.

Conclusion: Typical presentations of CSCR may be considered idiopathic, but abnormal presentations require evaluation for underlying etiology. If no ocular or systemic disease is discovered, medications need to be investigated as contributors to the retinopathy. Patients with CSCR using systemic steroids should be co-managed for optimal systemic and visual outcome.

Poster 62

Comfort and Tolerability Evaluation of 0.5% Carboxymethylcellulose (Refresh Tears) and Propylene Glycol/Polyethylene Glycol 400 (Systane) in Patients with Dry Eye

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Purpose: The purpose of this poster is to evaluate dry eye patient preference for Refresh Tears [0.5% Carboxymethylcellulose (CMC)] versus Systane [Propylene Glycol 0.3%/Polyethylene Glycol 0.4% (PG)], based on comfort and tolerability. **Methods:** Randomized, double-masked, paired-eye, 1-week clinical trial. Patients ($n = 55$) with a history of dry eye, but no prior treatment (except for artificial tear solutions), were randomized to receive either CMC or PG in each eye. The patients instilled their drops and waited 5 minutes before answering a patient questionnaire. Patients continued to instill the masked study medications into the assigned eye for 1 week and returned for a 1 week followup visit.

Results: Patients reported less blurring with CMC than with PG. At baseline, 55% of patients reported no blurring in the CMC eye, compared with 42% of PG eyes ($P = 0.182$). Among patients who reported a difference between drops, 64% of patients found PG to be more blurring, compared with 36% with CMC after 1 week of treatment ($P = 0.027$). Patients also reported less stickiness with CMC than with PG. At baseline, 47% of patients reported no stickiness in the CMC eye, compared with 33% of PG eyes ($P = 0.119$). At week 1, 58% of CMC eyes had no stickiness, compared with 31% of PG eyes ($P = 0.005$). Among patients who reported a difference, significantly more patients (73%) thought CMC was more soothing than PG (53% of all patients, including those who did not notice a difference between drops) ($P < 0.001$). After 1 week, 53% of all patients expressed a preference for CMC (67% of patients who noticed a difference), $P = 0.001$.

Conclusions: Immediately on instillation at baseline, patients found CMC to be more soothing and less sticky or

blurring than PG, and these initial preferences reached statistical significance after 1 week. Overall, patients preferred CMC to PG.

Poster 63

Anterior Granulomatous Uveitis Associated with Multiple Sclerosis

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Background: Multiple sclerosis (MS) is a complex neurological disorder characterized by chronic progressive inflammation and demyelination within the central nervous system. Ocular manifestations are common, with optic neuritis being a common form of ocular inflammation clinically associated with MS. Uveal inflammation—typically pars planitis, pan uveitis, or retinal periphlebitis—has also been reported in MS patients at a rate of up to 26.9%. Isolated anterior granulomatous uveitis (AGU) is rare, but has also been documented.

Case Report: A 45-year-old woman came in with an acutely red, painful, photophobic right eye. She had a history of decreased vision O.S. > O.D. secondary to recurrent episodes of optic neuritis associated with known MS. Detailed review of her medical record revealed an episode of pan uveitis O.S. in 2000. At that time, she underwent an extensive medical uveitis workup, with negative findings, except a borderline ACE level. Chest x-ray film was normal, ruling out sarcoidosis. Examination revealed a marked AGU, with large confluent “mutton-fat” KP, significant A/C reaction, and the presence of posterior synechiae O.D. There was no active posterior segment involvement, but bilateral optic atrophy O.D. >O.S. consistent with her history was evident. Her O.S. also showed signs of previous uveitis, not currently active.

Methods: She was started on aggressive treatment with topical cycloplegia and Pred Forte eyedrops, as well as Alphagan P for secondary ocular hypertension. Additional blood work was ordered to re-evaluate alternate etiologies for the AGU, again with negative results. It was therefore concluded that the inflammation was probably related to her known diagnosis of MS.

Conclusions: Although not common, optometrists should be aware of the association between AGU and MS. Additionally, uveitis can precede the diagnosis, and therefore MS should be considered a possible etiology in patients who manifest any type of uveitis with concurrent neurological symptoms.

ANTERIOR SEGMENT

Poster 64

Reiter's: A Challenging Diagnosis

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Background: Reiter's syndrome typically encompasses a clinical triad of findings, including arthritis, urethritis, and

conjunctivitis. It is often referred to as a reactive arthritis, as the inflammation often occurs in association to an infection already present in the body. Many bacteria are linked to Reiter's and, although it is not contagious, certain bacteria can be transmitted person-to-person via sexual contact. Up to 80% of Reiter's patients will test seropositive for HLA-B27, indicating a genetic propensity for inflammation. A thorough case history, coupled with a careful ocular health evaluation, will direct the physician to the correct diagnosis and provide a proper management plan.

Case Report: A 31-year-old man came to our clinic reporting photophobia and a painful left eye. Past ocular history was remarkable for recurrent uveitis for the previous 3 years. Medical history revealed vague symptoms associated with arthritis, including wrist pain, lower back pain, and unexplained knee inflammation. The patient reported being hospitalized for a chlamydial infection in 1991. His serology was positive for HLA-B27. Best-corrected visual acuities were 20/20 O.D., O.S.

Methods: Biomicroscopic evaluation of the right eye was unremarkable. The left eye evaluation revealed peri-limbal injection, an anterior chamber reaction with associated hypopyon, corneal keratic precipitates, and pigment on the lens capsule. Fundus evaluation did not reveal any vitritis or anomalies OU. Based on the clinical presentation, a diagnosis of Reiter's syndrome was made. The patient was treated with Pred Forte and Homatropine. In addition, he was referred out to a rheumatologist for a consultation.

Summary: Presented is a challenging diagnosis associated with recurrent uveitis. Anterior segment photography and laboratory results are presented. A discussion regarding pertinent differential diagnoses will be included. A proper diagnosis is necessary to best determine the prognosis and management.

Poster 65

Bilateral Lipid Keratopathy in a Patient with Systemic Hyperlipidemia

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Background: Lipid keratopathy (LK) is a rare corneal disorder. This lipid degeneration of the cornea can be divided into a *primary* and *secondary* form. The *primary form* is generally bilateral in nature and is often associated with systemic disease. The *secondary form* is more common and is caused by localized ocular conditions.

Case Report: A 55-year-old woman came to our clinic with reports of decreased vision in the left eye, accompanied by foreign body sensation and itchiness of 2 weeks' duration. She had a history of controlled hypertension and hypercholesterolemia for 5 years. Her best-corrected acuities were 20/20 O.D. and O.S. Slit-lamp examination revealed oily lid margins and pingueculae nasally and temporally OU. An interpalpebral yellow-grey elevated accumulation of mate-