The Effects of Doxycycline on IOP in Patients with Glaucoma and Ocular Surface Disease

Investigators: Dominick Opitz, OD, Kathryn Hohs, OD

The purpose of this study is to investigate the effect of an oral antibiotic, doxycycline, on intraocular pressure (IOP) in glaucoma patients. Doxycycline has anti-inflammatory properties and is currently used to treat ocular surface disease (OSD), though there is some evidence to suggest it also has an IOP lowering effect. In our study, mild to moderate open angle glaucoma patients being treated with ophthalmic hypotensive medication who have at least one sign/symptom of OSD are started on a low daily dose of doxycycline (50 mg once a day) for three months. Their eye pressure and signs/symptoms of OSD are evaluated over a six-month period.

A Multi-Center, Double-Masked, Randomized, Placebo-Controlled, Phase 3 Study of the Safety and Efficacy of Atropine 0.1% and 0.01% Ophthalmic Solutions Administered with a Microdose Dispenser for the Reduction of Pediatric Myopia Progression (The CHAPERONE Study)

Investigators: Yi Pang, OD, PhD, Megan Allen, OD, Denise Alexopoulos, OD, Alaina Bandstra, OD, Elyse Nylin, Study Coordinator

The purpose of this research study is to test the safety and effectiveness of atropine 0.1% and atropine 0.01% eye solutions. These drugs are being tested to see if they slow the worsening of nearsightedness. Each of the study drugs will be given as a spray mist using a special dispenser. The dispenser is designed to give low-volume doses of the study drug. The amount of study drug misted on the eye with this dispenser is much less than the amount contained in an eyedrop. In this study, performance of the study drugs will be compared to a placebo that has no therapeutic effect. The placebo eye solution will also be given as a spray mist using the specialized dispenser. This study will evaluate participants over a 42-month long period.

A Multicenter, Randomized, Double-Masked, Vehicle-Controlled Study to Assess the Safety and Efficacy of SYD-101 Ophthalmic Solution for the Treatment of Myopia in Children (The STAAR Study)

Investigators: Yi Pang, OD, PhD, Megan Allen, OD, Denise Alexopoulos, OD, Elyse Nylin, Study Coordinator

The purpose of this study is to determine if the study drug, SYD-101 eye drops, is safe and effective in slowing the worsening of myopia, compared with a control treatment. SYD-101 is a new formulation of an old drug, atropine, in very low doses of 0.01% and 0.03% concentrations. These drugs are being tested to see if they slow the worsening of nearsightedness. In this study, performance of the study drugs will be compared to a placebo that has no therapeutic effect. The placebo eye solution will also be given in drop form. This study will evaluate participants over a 48-month long period.

Low-Dose Atropine for Treatment of Myopia (MTS1)

Investigators: Yi Pang, OD, PhD, Megan Allen, OD, Denise Alexopoulos, OD, Christine Allison, OD, Elyse Nylin, Study Coordinator

This study is being done to see if low-dose eye drops of a drug called atropine (0.01%) can help prevent myopia(nearsightedness) from getting worse when compared to placebo. Atropine is not approved by the FDA for treating myopia. It is considered an experimental drug when being used to treat myopia. The placebo eye solution will also be given in drop form. This study will evaluate participants over a 30-month long period.

Intermittent Exotropia Study 5 (IXT5) A Randomized Clinical Trial of Overminus Spectacle Therapy for Intermittent Exotropia

Investigators: Yi Pang, OD, PhD, Christine Allison, OD, Megan Allen, OD and Kelly Yin, OD

The objectives of this randomized trial comparing overminus lens treatment to non-overminus (spectacles without overminusor spectacles with plano lenses) are to determine:

· The long-term on-treatment effect of overminus treatment on distance IXT control score (primary objective).

· The off-treatment effect of overminus treatment on distance IXT control score, following weaning and 3 months off treatment (secondary objective).

Funded by: NIH/NEI

Negative Pressure Applied by the Equinox MercuryTM Multi-Pressure Dial as an Adjunct Therapy for Lowering Intraocular Pressure in Subjects with Normal Tension Glaucoma (The Artemis Study)

Investigators: Dr. Michael Chaglasian, OD, Dr. Anne Rozwat, OD, Dr, Ashley Speilburg, OD, Dr. Harneet Randhawa, OD, Dr. Brittney Brady, OD., Dr. Mallory McLaughlin, OD, Dr. Darren Koenig, OD, Elyse Nylin, Study Coordinator

This is a research study to see if the Mercury Multi-Pressure Dial (MPD) can safely lower the eye pressure(s) during wear in patients with normal tension glaucoma (NTG). The study device is “investigational”. This means that it has not been approved by Food and Drug Administration (FDA). This study will evaluate participants over a 12-month long period.

Negative Pressure Applied by the Equinox MercuryTM Multi-Pressure Dial to Lower and Modulate Intraocular Pressure in Subjects with Severe Open Angle Glaucoma (The Ranger Study)

Investigators: Dr. Michael Chaglasian, OD, Dr. Anne Rozwat, OD, Dr, Ashley Speilburg, OD, Dr. Harneet Randhawa, OD, Dr. Brittney Brady, OD., Dr. Mallory McLaughlin, OD, Dr. Darren Koenig, OD, Elyse Nylin, Study Coordinator

This is a research study to see if the Mercury Multi-Pressure Dial (MPD) can safely lower the eye pressure(s) during wear in patients with severe open-angle glaucoma (OAG). The study device is "investigational". This means that it has not been approved by Food and Drug Administration (FDA). This study will evaluate participants over a 3-hour long period.

Comparison of the Optos P200TE (Monaco) and Optovue iVue OCT on Eyes with Glaucoma and Retinal Disease (OPT1062)

Investigators: Dr. Michael Chaglasian, OD, Dr. Anne Rozwat, OD, Dr, Ashley Speilburg, OD, Dr. Christina Morettin, OD, Elyse Nylin, Study Coordinator

This research study compares OCT imaging between the Optos Monaco and iVue OCT. There are several phases to the study, including Pre-Pilot and Pilot stages. Subjects with either glaucoma, or retinal disease, will be imaged on both devices and detailed analysis of the OCT scans is performed. In the final stage of study, subjects are imaged on three different Monaco and three different iVue devices, with multiple scans on each unit. This an Agreement and Precision study, required by the FDA for all OCT devices.

Obtaining a stable 9 mm pupil (or larger) using a drug combination in patients between the ages of 30 – 50

Investigators: Rebecca Zoltoski, Ph.D., Daniel Roberts, O.D., Ph.D., Christina Morettin, O.D., Jasandeep Uppal, O.D., JaanaAshtiani-Zarandi, Russell Lake, Thomas Ruiz, Nazli Sammak, Majid Moshirfar, M.D., Michele Avila, O.D., Steven Linn, O.D., Trey Fanning, Orry Birdsong, MD, Yasmyne Ronquillo, Vance Thompson, M.D., Douglas Wallin, O.D., Keith Rasmussen, O.D., Kayla Karpuk O.D., Samantha Nielson, Jason Meyer, Kristin Ford COA, Melissa Holm, KeeleyPuls, CCRC, COA, OSC.

This study is interested in looking at how big the pupil can be using a combination of gel eye drops. We are conducting this study at three different locations in the United States: The Illinois College of Optometry/Illinois Eye Institute in Chicago, IL, Vance Thompson Vision in Sioux Falls, SD and Hoopes Vision in Draper UT.

Funded by: Lenticular Research Group, LLC

A Phase 3, Multi-Center, Randomized, Double-Masked, Saline-Controlled Trial to Evaluate the Effect of NOV03 (Perfluorohexyloctane) on Signs and Symptoms of Dry Eye Disease Associated with Meibomian Gland Dysfunction (Mojave Study)

Investigators: Dr. Jennifer Harthan, OD, Elyse Nylin, Study Coordinator

This study involves the use of an investigational drug called NOV03 which has been developed for the treatment of dry eye disease. An investigational drug is a drug that has not yet been approved by the U.S. Food and Drug Administration (FDA) but may be used in research studies like this one and is still being tested for safety and effectiveness. The purpose of this research study is to evaluate the effectiveness, safety, and tolerability of NOV03 eye drops compared to saline solution on signs and symptoms of dry eye disease. This study will evaluate participants over an 8-week long period.

Comparison of Intracanalicular Dexamethasone Insert to Topical Loteprednol Etabonate Ophthalmic gel 0.38% in Patients with Keratoconus (KC) with Allergic Conjunctivitis and underlying Dry Eye Disease (DED)

Investigators: Dr. Jennifer Harthan, OD, Dr. Chelsea Bradley, OD

This study involves one method of treatment (intracanalicular insert of dexamethasone) for keratoconus to evaluate if it improves the signs and symptoms of ocular allergy and dry eye compared to the use of topical loteprednol etabonate ophthalmic gel 0.38%. This study will evaluate participants over a 12-week long period.

Tangible Hydra-Peg™: A Promising Solution for Scleral Lens Wearers with Dry Eye

Investigators: Chandra Mickles OD, Melissa Barnett OD, Jennifer Harthan OD

Tangible Hydra-PEG TM (Tangible Science LLC, Menlo Park, CA, USA) is a novel coating technology designed to improve lens wettability, deposit resistance and tear film breakup time, ultimately enhancing contact lens comfort. While studies have shown that Tangible Hydra-Peg technology can improve contact lens discomfort (CLD) in soft contact lens and gas permeable lens wearers, 6-7 to our knowledge, no clinical research investigation has examined the benefits of this new coating on scleral lens wear in dry eye sufferers. As such, the aim of this study is to compare the CLD and DE symptoms of dry eye scleral lens wearers between Tangible Hydra-Peg treated scleral lens wear and untreated scleral lens wear. CLD and DE signs will also be assessed to corroborate our findings.

Funded by: Tangible Science

https://pubmed.ncbi.nlm.nih.gov/33156128/

Dry Eye Symptoms, Visual Function, and Meibomian Gland Atrophy with Digital Device Use

Investigators: Jennifer Harthan OD, Milton Hom OD, Justin Kwan OD, Scott Schachter OD, Leslie O'Dell OD, Katherine Mastrota OD, Scott Hauswirth OD, Clare Halleran OD, Scott Schwartz OD

Dry Eye Syndrome (DES) is commonly encountered among eye care professionals. DES is a disease of the tears and ocular surface that is multi-factorial; resulting in a wide range of symptoms and signs with potentially damaging effects. As technology continues to evolve and as digital devices become more available in social and work environments, patients are increasingly complaining of ocular discomfort and fluctuations in their vision. In order to diagnose dry eye and MGD, a detailed case history of the patients' symptoms along with imaging to investigate the amount of disease present in their eyes is needed. The SPEED and OSDI questionnaires and meibography will allow for a subjective and objective investigation of dry eye disease in patients who use digital devices (smart phones, tablets, computers).

Effectiveness of Orthokeratology in Myopia Control

Investigators: Jennifer Harthan OD, Yi Pang OD, Ph.D, Valerie Kattouf

The high prevalence of myopia – especially in Asian countries – is well documented, as are the sight-threatening complications of high or degenerative myopia. Specialty rigid lenses have long been shown to lessen this progression in the pediatric population; orthokeratology (ortho-k) lenses are worn at night and change the corneal topography to correct low to moderate amounts of myopia. Most of the studies on orthokeratology were conducted on Asian children. Our project seeks to investigate the efficacy of ortho-k in slowing axial elongation and myopic progression in African American (AA) children compared to that in other races.

Funded by: Wesley Foundation Scholarship

Reducing Adenoviral Patient Infected Days (RAPID)

Investigators: Mae Gordon (PI), Leonard Haertter, Julie Huecker, Mary Migneco OD, Andy Hartwick OD, Ellen Shorter OD, Izzy Goldberg, Spencer Johnson OD, Tammy Than OD, Tom Freddo OD; ICO: Jennifer Harthan OD (PI), Christina MorettinOD The primary aim of this pilot study is to generate data needed to design a definitive trial to compare the safety and efficacy of standard care with artificial tears vs. Betadine 5% (5% povidone-iodine) for the treatment of pink eye due to adenovirus. There is currently no FDA approved treatment for pink eye, a common and highly contagious eye infection caused by adenovirus. Standard care as recommended by the American Academy of Ophthalmology and American Optometric Association is instillation of artificial tears to relieve symptoms and possibly reduce the virus population. Betadine 5% is a commercially available, broad-spectrum antiseptic ophthalmic solution used for over 50 years to prepare the patient's eye and surrounding area for eye surgery. Because Betadine 5% kills bacteria and viruses, it may be useful in treating adenoviral conjunctivitis. Betadine 5% is inexpensive, safe, widely available, and immune to the development of bacterial/viral resistance. Betadine 5% has the potential to significantly impact the clinical management of "pink eye" worldwide.

Funded by: NIH R-34 RAPID Pilot Study

Sjogren's Syndrome Outreach Chart Review Study (DRESS)

Investigators: Jennifer Harthan OD (PI, US), Melissa Barnett Erickson, OD, Barbara Caffery OD, Mira Acs OD, Leslie O'Dell OD, Lisa Jordan, Matt Robich, Robin Chalmers OD, Peter Bergenske OD

This study provided a retrospective review of Sjögren's Syndrome (SS) patients as they sought clinical care at up to seven different clinical sites. The review analyzed dry eye signs and symptoms and related clinical data to determine the various ways in which SS is diagnosed in a variety of clinical settings and to describe the course of dry eye disease in SS. All charts with a positive diagnosis of primary or secondary SS were included in this study. Data from up to 500 patient years of SS patients from five to seven different clinical sites were reviewed from the year 2000 onward. All relevant data will be collected as long the patients have been seen for at least 2 visits within 10-15 consecutive months. The first visit will be the one that is considered as the diagnostic visit or the one closest following the date of diagnosis. The remaining visits will be those from 10-15 months from the initial diagnostic visit.

https://pubmed.ncbi.nlm.nih.gov/30131217/

Scleral Lenses in Current Ophthalmic Practice: an Evaluation (SCOPE)

Investigators: Principal Investigator: Muriel Schornack, OD, Consultant: Joe Barr OD, Co-Investigator for communication: Jennifer Harthan, OD, Co-Investigator for study design: Cherie Nau, OD, Co-Investigator for funding: Amy Nau, OD, Co-Investigator for communication: Ellen Shorter, OD

Our initial project was to conduct a survey of domestic and international eye care providers self-identified as fitting scleral lenses to assess current global scleral lens practice patterns.
The second arm of the study is to execute a multi-center prospective study that will define patient centered outcomes, changes in visual acuity and impact of scleral lens wear on anterior segment structures. Primary purpose or goals: To determine if patients using scleral lenses report improved vision-related quality of life, ocular comfort, and refractive quality of life and to determine visual acuity and ocular surface outcomes for patients wearing scleral lenses.

The SCOPE (Scleral Lenses in Current Ophthalmic Practice: an Evaluation) study group was established in 2014 under the auspices of the American Academy of Optometry Fellows Doing Research Special Interest Group. The group comprises national experts in the clinical fitting of scleral lenses who also have academic research interests. Because scleral lenses have only recently become part of mainstream clinical practice, there are significant gaps in our understanding of practice patterns, fitting philosophies and the biological effects of these devices. The goal of our collaboration is to spearhead clinical research in scleral lenses, and to engage clinicians and basic scientists on a global scale. Included in our mission the dissemination of our findings to clinician, industry and patient stakeholders.

The Executive Committee members are: Jennifer Fogt, Jennifer Harthan, Amy Nau, Cherie B. Nau, Muriel Schornack and Ellen Shorter. We engage with a vetted network of other experienced scleral fitters interested in assisting with clinical and research projects on an ad hoc basis.

The following link shows all presentations published by the SCOPE study group:

https://chicago.medicine.uic.edu/departments/academic-departments/ophthalmology-visual-sciences/make-a-gift/scope/

Family study of CTRP5 mutation, long zonules, macular degeneration and glaucoma

Investigators: Daniel K. Roberts, O.D., M.S., Radha Ayyagari, Ph.D., Faye Davis, Ph.D., Jacob Wilensky, M.D. This study seeks further understanding of the relationship of a gene (CTRP5) mutation to the development of long anterior lens zonules which may serve as a surrogate marker of risk for serious eye conditions including macular degeneration and glaucoma. This study may help physicians identify early risk for serious eye disease via recognition of the LAZ phenotype.