Study Title

The Effect of Brimonidine on Intraocular Pressure When Dilating Routine Patients; Pressure Control and Pupil Effects.

Keith Walter, MD Principal Investigator

Summary

You are invited to participate in a research study. The purpose of this research is to evaluate the effect of Brimonidine on intraocular pressure when dilating routing patients. You are invited to be in this study because you meet the eligibility criteria. Your participation in this research will involve one visit and last about 4.5 hours.

Participation in this study will involve receiving a series of eye drops and having your intraocular pressure, pupil size, and pupil reactivity measured. All research studies involve some risks. A risk to this study that you should be aware of is a possible reaction to the administered drops although rare. There is not the possibility that you may benefit from participation in this study.

Your participation in this study is voluntary. You do not have to participate in this study if you do not want to. There may be other choices available to you. Some other choices may include not participating. You will not lose any services, benefits, or rights you would normally have if you choose not to participate.

The remainder of this form contains a more complete description of this study. Please read this description carefully. You can ask any questions if you need help deciding whether to join the study. The person in charge of this study is Keith Walter, MD. If you have questions, suggestions, or concerns regarding this study or you want to withdraw from the study his/her contact information is: [redacted] or email at [redacted]

If you have any questions, suggestions or concerns about your rights as a volunteer in this research, contact the Institutional Review Board at [redacted] or the Research Subject Advocate at Wake Forest at [redacted]

Introduction

You are invited to be in a research study. Research studies are designed to gain scientific knowledge that may help other people in the future. You are being asked to take part in this study because the study needs healthy volunteers. Your participation is voluntary. Please take your time in making your decision as to whether or not you wish to participate. Ask your study doctor or the study staff to explain any words or information contained in this informed consent document that you do not understand. You may also discuss the study with your friends and family.

Why Is This Study Being Done?

The purpose of this research study is to investigate whether pre-treating participants with an eye drop called Alphagan (brimonidine; an FDA approved drug for lowering intraocular eye pressure) prior to pupil dilation and/or post-treating will be effective in controlling the fluctuations in intraocular pressure (IOP) seen when using mydriatics (pupil dilating drops) such as tropicamide/phenylephrine (commonly used drops to dilate pupils in the eye clinic).

How Many People Will Take Part in the Study?

We anticipate enrollment of up to 20 participants in the study at this site.

What Is Involved in the Study?

If you agree to be in the research study, you can choose to remain enrolled from when you sign the consent form to approximately 4 hours after the eye drops are given.

If you take part of this study, you will have the following tests and procedures in one session depending on which group you are in:

Drops will be given to you according to the group you are randomized to and will follow the schedule below. Randomization means you are put into a group by chance. It is like flipping a coin.

Group 1		**Group 2**	
Right Eye	**Left Eye**	**Right Eye**	**Left Eye**
• Sham drop (none) • Wait 5 minutes • 1 drop Tropicamide 1%/Phenylephrine 2.5% • 1 minute • 2nd drop Tropicamide 1%/Phenylephrine 2.5%	• 2 drops Brimonidine 0.2% • 5 minutes • 1 drop Tropicamide 1%/Phenylephrine 2.5% • 1 minute • 2nd drop Tropicamide 1%/Phenylephrine 2.5%	• 1 drop Tropicamide1% /Phenylephrine 2.5% • Wait 1 minute • 2nd drop Tropicamide 1%/Phenylephrine 2.5% • 15 secs later • Sham drop (none)	• 1 drop Tropicamide 1% /Phenylephrine 2.5% • Wait 1 minute • 2nd drop Tropicamide 1%/Phenylephrine 2.5% • 15 secs later • 2 drops Brimonidine 0.2%
• 15 min. collect Data set	• 15 min. collect Data set	15 min. collect Data set	• 15 min. collect Data set

Following the drops, we will begin data collection including measuring your intraocular pressure, pupil size, and pupil reaction to light at 6 different time points: baseline (pre-drop), 15 minutes after the last drop was given, 30 minutes, 1 hour, 2 hours, and 4 hours.

As part of this research study, you may be photographed. This is done to have a visual representation of difference in pupil size. You understand that you may request the filming or

recording be stopped at any time during the course of the research study. You can also withdraw your consent to use and disclose the photograph before it is used. You should also understand that you will not be able to inspect, review, or approve the photographs before they are used in this study.

The photograph will be of just your eyes and will be taken in a method to protect your confidentiality. The photograph will be framed from the lower part of your eyebrows, to the sides of your face, and your upper nose.

Please choose one of the following regarding the use and disclosure of the photograph used in this research study:

_____ I would like the photographs of me to be destroyed once their use in this study is finished.

____ The photographs of me can be kept for use in future studies provided they are kept secure and any future study will be reviewed by an IRB. I understand that I will not be able to inspect, review or approve their future use.

How Long Will I Be in the Study?

If you agree to be in the research study you can chose to remain enrolled from when you sign the consent form to approximately 4 hours after the eye drops are given.

You can stop participating at any time. If you decide to stop participating in the study we encourage you to talk to the investigators or study staff first to learn about any potential health or safety consequences, however, we do not anticipate any serious consequences of sudden withdrawal from the study.

What Are the Risks of the Study?

Being in this study involves some risk to you. You should discuss the risk of being in this study with the study staff. Risks and side effects related to the use of Tropicamide/Phenylephrine and Alphagan (brimonidine) we are studying include:

***Risks for Alphagan (*brimonidine):**

Risks and side effects related to the brimonidine we are studying include:
Adverse reactions occurring in approximately 10-20% of the subjects receiving brimonidine ophthalmic solution (0.1-0.2%) included: allergic conjunctivitis, conjunctival hyperemia (eye redness), and eye pruritus (itching). Adverse reactions occurring in approximately 5-9% of the subjects receiving brimonidine ophthalmic solution (0.1-0.2%) included: burning sensation, conjunctival folliculosis (inflammation), hypertension (high blood pressure), ocular allergic reaction, dry mouth, and visual disturbance (blurred vision).

Adverse reactions occurring in approximately 1-4% of the subjects receiving brimonidine ophthalmic solution (0.1-0.2%) included: abnormal taste, allergic reaction, asthenia (weakness), blepharitis (eyelid inflammation), blurred vision, bronchitis (cough), cataract, conjunctival edema (eye swelling), conjunctival hemorrhage (bleeding of the eye), conjunctivitis (inflammation of the eye), cough, dizziness, dyspepsia (indigestion), dyspnea (trouble breathing), epiphora (tearing), eye discharge, eye dryness, eye irritation, eye pain, eyelid edema, eyelid erythema (redness), fatigue, flu syndrome, follicular conjunctivitis (inflammation of the front part of the eye), foreign body sensation, gastrointestinal disorder (upset stomach), headache, hypercholesterolemia (high cholesterol), hypotension (low blood pressure), infection (primarily colds and respiratory infections), insomnia (unable to sleep), keratitis (inflammation of the front covering of the eye), lid disorder, pharyngitis (sore throat), photophobia (light sensitivity), rash, rhinitis (running nose), sinus infection, sinusitis, somnolence (sleepiness), stinging, tearing, visual field defect (loss of part of vision), vitreous detachment (the jelly in the eye comes off the retina), vitreous floaters (black spots in vision), and worsened visual acuity. The following reactions were reported in less than 1% of subjects: corneal erosion (loss of the front covering of the eye), hordeolum (swelling of eyelid), nasal dryness, and taste perversion (abnormal taste in the mouth).

Risks for Tropicamide/Phenylephrine (dilating drops):

Frequency Not Defined: Blurred vision (especially at near), burning sensation in eye, hypersensitivity reactions such as allergic itching or rash, sensitivity to light, headache or brow ache, eye redness, temporary burning or stinging.

Rare: Increased blood pressure, rapid heartbeat, abnormal heart rhythm, flushing, poor coordination, confusion, headache, raised eye pressure, seizure, trembling or tremors, increased sweating, pale skin or blanching.

In addition, there is a slight risk of a breach of confidentiality. We will do our best to protect your confidential information. There also may be other side effects that we cannot predict. You should tell the research staff about all the medications, vitamins and supplements you take and any medical conditions you have. This may help avoid side effects, interactions and other risks.

Taking part in this research study may involve providing information that you consider confidential or private. Efforts, such as coding research records, keeping research records secure and allowing only authorized people to have access to research records will be made to keep your information safe.

Reproductive Risks and other Issues to Participating in Research

Pregnant women are excluded from participation in this study. Because NO method of birth control is 100% reliable, a pregnancy test is required at least 10 days from your last normal menstrual period, if you are a sexually active woman of childbearing potential.

Are There Benefits to Taking Part in the Study?

You are not expected to receive any direct benefit from taking part in this research study. We hope the information learned from this study will benefit other people in the future.

What Other Choices Are There?

This is not a treatment study. Your alternative is to not participate in this study.

What Are the Costs?

All study costs, including any study medications and procedures related directly to the study, will be paid for by the study.

Will Your Research Records be Confidential?

The results of this research study may be presented at scientific or medical meetings or published in scientific journals. Your identity and/or your personal health information will not be disclosed unless it is authorized by you, required by law, or necessary to protect the safety of yourself or others. There is always some risk that even de-identified information might be re-identified.

Participant information may be provided to Federal and other regulatory agencies as required. The Food and Drug Administration (FDA), for example, may inspect research records and learn your identity if this study falls within its jurisdiction.

The photo that will be taking of your pupils will be done in a method to uphold confidentiality. Photos will be taken by study staff and will be framed by the sides of your face, eyebrows, and upper nose. We will follow these guidelines in order to protect your security and maintain confidentiality. We will also store the photos in a securely on a password protected and encrypted computer.

Will You Be Paid for Participating?

You will be given a Starbucks gift card in the amount of $30 at the end of the 4-hour study

Who is Sponsoring this Study?

There are no current financial sponsors of this study. The Wake Forest University Innovations is the sponsor of this study.

What Happens if You Experience an Injury or Illness as a Result of Participating in this Study?

Should you experience a physical injury or illness as a direct result of your participation in this study, Wake Forest University School of Medicine maintains limited research insurance coverage for the usual and customary medical fees for reasonable and necessary treatment of such injuries or illnesses. To the extent research insurance coverage is available under this policy the reasonable costs of these necessary medical services will be paid, up to a maximum of $25,000. Wake Forest University Baptist Medical Center holds the insurance policy for this coverage. It provides a maximum of $25,000 coverage for each claim and is limited to a total of $250,000 for all claims in any one year. The Wake Forest University School of Medicine, and the North Carolina Baptist Hospitals, Incorporated do not assume responsibility to pay for these medical services or to provide any other compensation for such injury or illness. Additional information may be obtained from the Medical Center's Director of Risk and Insurance Management, at [redacted]

If you are injured, the insurer may require information such as your name, social security number, and date of birth in order to pay for your care. This is because the insurer is required by law to report any payments made to cover the care of any persons who are members of a government insurance plan to the Department of Health and Human Services.

You do not give up any legal rights as a research participant by signing this consent form. For more information on medical treatment for research related injuries or to report a study related illness, adverse event, or injury you should call Keith Walter at telephone number [redacted] this number is available 24 hours a day)

What About My Health Information?

In this research study, any *new information we collect from you* about your health or behaviors is considered Protected Health Information. The information we will collect for this research study includes: your name, medical record number, age, gender, pupil size, eye color, eye pressure, and a photo of your eyes.

If this research study involves the diagnosis or treatment of a medical condition, then Protected Health Information collected from you during this study may be placed in your medical record, and may be used to help treat you, arrange payment for your care, or assist with Medical Center operations.

We will make every effort to keep your Protected Health Information private. We will store records of your Protected Health Information in a cabinet in a locked office or on a password protected computer.

Your personal health information and information that identifies you ("your health information") may be given to others during and after the study. This is for reasons such as to carry out the study, to determine the results of the study, to make sure the study is being done correctly, to provide required reports and to get approval for new products.

Some of the people, agencies, and businesses that may receive and use your health information are the research sponsor; representatives of the sponsor assisting with the research; investigators at other sites who are assisting with the research; central laboratories, reading centers or analysis

centers; the Institutional Review Board; representatives of Wake Forest University Health Sciences and North Carolina Baptist Hospital; representatives from government agencies such as the Food and Drug Administration (FDA), the Department of Health and Human Services (DHHS) and similar agencies in other countries.

Some of these people, agencies, and businesses may further disclose your health information. If disclosed by them, your health information may no longer be covered by federal or state privacy regulations. Your health information may be disclosed if required by law. Your health information may be used to create information that does not directly identify you. This information may be used by other researchers. You will not be directly identified in any publication or presentation that may result from this study unless there are photographs or recorded media which are identifiable.

If required by law or court order, we might also have to share your Protected Health Information with a judge, law enforcement officer, government agencies, or others. If your Protected Health Information is shared with any of these groups it may no longer be protected by federal or state privacy rules.

Any Protected Health Information collected from you in this study that is maintained in the research records will be kept for at least six years after the study is finished. At that time any research information not already in your medical record will either be destroyed or it will be de-identified. You will not be able to obtain a copy of your Protected Health Information in the research records until all activities in the study are completely finished.

You can tell Dr. Keith Walter MD that you want to take away your permission to use and share your Protected Health Information at any time by sending a letter to this address:

Dr. Keith Walter MD

[redacted]

However, if you take away permission to use your Protected Health Information you will not be able to be in the study any longer. We will stop collecting any more information about you, but any information we have already collected can still be used for the purposes of the research study.

By signing this form you give us permission to use your Protected Health Information for this study.

If you choose to participate in this study, your medical record at Wake Forest University Baptist Medical Center will indicate that you are enrolled in a clinical trial. Information about the research and any medications or devices you are being given as a participant may also be included in your medical record. This part of the medical record will only be available to people who have authorized access to your medical record. If you are not a patient at this Medical

Center, a medical record will be created for you anyway to ensure that this important information is available to doctors in case of an emergency.

A description of this clinical trial will be available on http://www.ClinicalTrials.gov, as required by U.S. Law. This website will not include information that can identify you. At most, the website will include a summary of the results. You can search this Web site at any time.

Laboratory test results and other medical reports created as a result of your participation in the research study may be entered into the computer systems of Wake Forest University Health Sciences and North Carolina Baptist Hospital. These will be kept secure, with access to this information limited to individuals with proper authority, but who may not be directly involved with this research study.

A North Carolina Baptist Hospital (NCBH) medical record will be created for all study participants. Information about your participation in the study may be placed in the NCBH medical record, along with any routine medical test results that were obtained at NCBH as part of this study.

What Are My Rights as a Research Study Participant?

Taking part in this study is voluntary. You may choose not to take part or you may leave the study at any time. Refusing to participate or leaving the study will not result in any penalty or loss of benefits to which you are entitled. If you decide to stop participating in the study we encourage you to talk to the investigators or study staff first to learn about any potential health or safety consequences. The investigators also have the right to stop your participation in the study at any time.

You will be given any new information we become aware of that would affect your willingness to continue to participate in the study.

Possible Conflict of Interests:

This study will be enrolling students from the Wake Forest University and/or Wake Forest University Medical Center. In addition to your rights as a research participant noted in the previous section, as a student, you are under no obligation to participate in this study. You may refuse to participate or withdraw from the study at any time and for any reason without affecting your grades, performance evaluations, or assignments. You will not be pressured into participating in this research study by any statements or implied statements that your grades, performance evaluations, or assignments will be affected by your willingness to enroll in the study. Your medical records/information will not be used by the faculty, administration, or study staff to make decisions regarding the status of your medical benefits. If you have questions regarding your enrollment in the study and your status as a medical student, please contact the Office of Student Services for additional information.

No students or residents will be recruited that are under the direct supervision of Dr. Walter. If any ophthalmology residents wish to volunteer (not recruited), no credit will be given for participating and

their evaluations will not be affected. In addition, an independent party will look at your medical record that has no affiliation or connect to any student in at the Wake Forest University School of Medicine.

Whom Do I Call if I Have Questions or Problems?

For questions about the study or in the event of a research-related injury, contact the study investigator, Dr. Keith Walter MD at [redacted] or email at [redacted]. This number can be used to contact us 24 hours a day.

The Institutional Review Board (IRB) is a group of people who review the research to protect your rights. If you have a question about your rights as a research participant, or you would like to discuss problems or concerns, have questions or want to offer input, or you want to obtain additional information, you should contact the Chairman of the IRB at [redacted].

You will be given a copy of this signed consent form.

Signature page follows…

Signatures

I agree to take part in this study. I authorize the use and disclosure of my health information as described in this consent and authorization form. If I have not already received a copy of the Privacy Notice, I may request one or one will be made available to me. I have had a chance to ask questions about being in this study and have those questions answered. By signing this consent and authorization form, I am not releasing or agreeing to release the investigator, the sponsor, the institution or its agents from liability for negligence.

Subject Name (Printed):_____

Subject Signature: _____ Date: _____Time:_____ am pm

Person Obtaining Consent (Printed):_____

Person Obtaining Consent: _____ Date:_____ Time:_____ am pm