

Clinical Trial Protocol

Iranian Registry of Clinical Trials

21 Jun 2026

The Effect of conventional antiglaucoma medications; such as Timolol, Brimonidin, Latanoprost and Dorzolamide Eye Drops on Prepapillary and Optic Nerve Head Circulation

Protocol summary

Study aim

Quantitative evaluation of vascular dystonia (VD) and surface area of perfusion area of ONH and papillary after administration of common antiglaucoma drugs in healthy young people

Design

The use of non-recurrent sampling based on the purpose of healthy young people after entering into an acute satisfaction is included in the study. After recording the demographic data, all subjects undergoing an ophthalmic examination including vision, intraocular pressure, fundus examination. Subjects were then randomly assigned to one of the four intervention groups randomly (using closed envelopes) and received one of four topical topolmuloid drops, topical dopozlamide drops, topical bimonidine drops, or latanoprost drops in their right eye by the resident's eye. they do. The left eye control group is the same as those who receive the drug.

Settings and conduct

Khatam Al Anbia hospital

Participants/Inclusion and exclusion criteria

Healthy young volunteers age 20-40

Intervention groups

Healthy young volunteers randomly assigned to four group topical antiglaucoma medications : Timolol, Dorzolamide, Brimonidine, Latanoprost

Main outcome variables

A quantitative evaluation of vascular density (VD) and level of perfusion area of ONH and papillary aphidia following the administration of common antiglaucoma drugs

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20190405043168N1**

Registration date: **2019-09-06, 1398/06/15**

Registration timing: **registered_while_recruiting**

Last update: **2019-09-06, 1398/06/15**

Update count: **0**

Registration date

2019-09-06, 1398/06/15

Registrant information

Name

Marzieh Ghannad

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 51 3840 9536

Email address

anaghannad@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2019-08-23, 1398/06/01

Expected recruitment end date

2019-10-23, 1398/08/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The Effect of conventional antiglaucoma medications; such as Timolol, Brimonidin, Latanoprost and Dorzolamide Eye Drops on Prepapillary and Optic Nerve

Head Circulation

Public title

The Effect of conventional antiglaucoma medications; such as Timolol, Brimonidin, Latanoprost and Dorzolamide Eye Drops on Prepapillary and Optic Nerve Head Circulation

Purpose

Health service research

Inclusion/Exclusion criteria

Inclusion criteria:

Conscious Consciousness Normal Ocular Examination Normal IOP

Exclusion criteria:

Diabetes and hypertension and family history of high pressure of the eye History of ocular disease Allergy to antiglaucoma medications Pregnancy and breastfeeding

Age

From **20 years** old to **40 years** old

Gender

Both

Phase

Bioequivalence

Groups that have been masked

- Participant
- Care provider
- Investigator
- Outcome assessor
- Data analyser
- Data and Safety Monitoring Board

Sample size

Target sample size: **80**

Randomization (investigator's opinion)

Randomized

Randomization description

In this study, volunteer healthy volunteers were randomly assigned to one of the four intervention groups. For each group, one of four topical timolol drugs, dorzolamid drops, topical bimonidine drops, and topical latannoprost drops were used in the right eye.

Blinding (investigator's opinion)

Triple blinded

Blinding description

The four drugs used by one of the physicians are initially called abbreviated, and thus the patient, the perimeter papillary permeate optometry and measurement gauge, and the statistic consultant who has the purpose of analyzing the data, are unaware of the type of drops. After the data analysis is completed, the nature of the drug groups is determined

Placebo

Used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

The Ethics Committee of Mashhad University of Medical Sciences

Street address

Azadi Square, University of Pardis, Faculty of Medicine, Mashhad, Iran

City

Mashhad

Province

Razavi Khorasan

Postal code

9177948564

Approval date

1397-09-13, 777/01/-188

Ethics committee reference number

IR.MUMS.MEDICAL.REC.1397.657

Health conditions studied

1

Description of health condition studied

Evaluation of the effect of anti-glaucoma drugs on the blood flow of the optic nerve head

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Evaluation of the effect of anti-glaucoma drugs on the blood flow of the optic nerve head

Timepoint

Before taking the medication and at the time of the peak of the medication

Method of measurement

OCTA optivue Device

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: right eye of volunteers randomly assigned to one of antiglaucoma drugs

Category

Treatment - Drugs

2

Description

Control group: artificial tear instilled in the left eye of participants

Category

Placebo

Recruitment centers

1

Recruitment center

Name of recruitment center

Khatam Al Anbia hospital

Full name of responsible person

Marzieh Ghannad

Street address

Khatam Al anbia hospital, Gharani Blvd., Mashhad

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9195965919

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anaghannad@gmail.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Mashhad University of Medical Sciences

Full name of responsible person

Saeid Eslami

Street address

ghoreyshi building, daneshgah ave

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ramresearch@mums.ac.ir

Grant name

Grant code / Reference number

Is the source of funding the same sponsor organization/entity?

Yes

Title of funding source

Mashhad University of Medical Sciences

Proportion provided by this source

100

Public or private sector

Public

Domestic or foreign origin

Domestic

Category of foreign source of funding

empty

Country of origin

Type of organization providing the funding

Academic

Person responsible for general inquiries

Contact

Name of organization / entity

Mashhad University of Medical Sciences

Full name of responsible person

saeed shokoohi rad

Position

Assistant Professor

Latest degree

Specialist

Other areas of specialty/work

Ophthalmology

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Person responsible for scientific inquiries

Contact

Name of organization / entity

Mashhad University of Medical Sciences

Full name of responsible person

marzieh ghannad

Position

resident

Latest degree

Specialist

Other areas of specialty/work

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Person responsible for updating data

Contact

Name of organization / entity

Mashhad University of Medical Sciences

Full name of responsible person

Marzieh Ghannad

Position

resident

Latest degree

Specialist

Other areas of specialty/work

Ophthalmology

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

Yes - There is a plan to make this available

Study Protocol

Yes - There is a plan to make this available

Statistical Analysis Plan

Yes - There is a plan to make this available

Informed Consent Form

Yes - There is a plan to make this available

Clinical Study Report

Yes - There is a plan to make this available

Analytic Code

Yes - There is a plan to make this available

Data Dictionary

Yes - There is a plan to make this available

Title and more details about the data/document

All of data would be accessible

When the data will become available and for how long

6 month after publish of results

To whom data/document is available

Researchers in academic institutes

Under which criteria data/document could be used

there would no restrictions

From where data/document is obtainable

Khatam Al-Anbia Hospital - Gharani ave - Dr. ghannad

What processes are involved for a request to access data/document

official request should send to khatam al anbia hospital

Comments