

Clinical Trial Protocol

Iranian Registry of Clinical Trials

09 Jun 2026

Effect of YAG capsulotomy on anterior segment parameters and lenticular astigmatism in pseudophakic patients with posterior capsule opacity: a before-after clinical trial

Protocol summary

Study aim

To assess the effect of YAG capsulotomy on anterior segment parameters and lenticular astigmatism in pseudophakic patients with posterior capsule opacity

Design

This is a before-after clinical trial in which 26 eligible patients will be recruited.

Settings and conduct

The eligible patients with posterior capsule opacity who will refer to Sina Hospital in Hamadan City during the study period will be enrolled in this before-after trial.

Participants/Inclusion and exclusion criteria

Inclusion criteria: Age of 18 to 75 years Posterior capsule opacity Visual impairment Indication of Laser TAG capsulotomy Exclusion criteria: History of cataract complicated surgery Diabetes Other eye diseases The history of eye trauma Intensive nystagmus Mental retardation

Intervention groups

Intervention group: Surgery of cataract and lens adjustment using laser YAG capsulotomy Control group: In comparison with before intervention

Main outcome variables

Refractive errors; depth of the anterior chamber; volume of the anterior chamber; size of the cornea b; pupil size

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20120215009014N288**

Registration date: **2019-07-07, 1398/04/16**

Registration timing: **retrospective**

Last update: **2019-07-07, 1398/04/16**

Update count: **0**

Registration date

2019-07-07, 1398/04/16

Registrant information

Name

Jalal Poorolajal

Name of organization / entity

Department of Epidemiology & Biostatistics Hamadan University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 81 1838 0090

Email address

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2019-04-21, 1398/02/01

Expected recruitment end date

2019-06-22, 1398/04/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of YAG capsulotomy on anterior segment parameters and lenticular astigmatism in pseudophakic patients with posterior capsule opacity: a before-after clinical trial

Public title

Effect of YAG capsulotomy on anterior segment parameters and lenticular astigmatism in pseudophakic

patients with posterior capsule opacity

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Age of 18 to 75 years
Posterior capsule opacity
Visual impairment
Indication of Laser TAG capsulotomy

Exclusion criteria:

History of cataract complicated surgery
Diabetes
Other eye diseases
The history of eye trauma
Intensive nystagmus
Mental retardation

Age

From **18 years** old to **75 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **26**

Randomization (investigator's opinion)

N/A

Randomization description

Blinding (investigator's opinion)

Not blinded

Blinding description

Placebo

Not used

Assignment

Single

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics Committee of Hamadan University of Medical Sciences

Street address

Vice-chancellor for Research and Technology,
Hamadan University of Medical Sciences, Shahid Fahmideh Ave

City

Hamadan

Province

Hamadan

Postal code

6517838695

Approval date

2019-04-13, 1398/01/24

Ethics committee reference number

IR.UMSHA.REC.1398.050

Health conditions studied

1

Description of health condition studied

Cataract

ICD-10 code

H25

ICD-10 code description

Age-related cataract

Primary outcomes

1

Description

Comparison of the refractive errors

Timepoint

Before the intervention and 3 months later

Method of measurement

By clinical examination

2

Description

Comparison of the depth of the anterior chamber

Timepoint

Before the intervention and 3 months later

Method of measurement

By clinical examination

3

Description

Comparison of the volume of the anterior chamber

Timepoint

Before the intervention and 3 months later

Method of measurement

By clinical examination

4

Description

Comparison of the size of the cornea

Timepoint

Before the intervention and 3 months later

Method of measurement

By clinical examination

5

Description

Comparison of the pupil size

Timepoint

Before the intervention and 3 months later

Method of measurement

By clinical examination

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: Surgery of cataract and lens adjustment using laser YAG capsulotomy

Category

Treatment - Surgery

Recruitment centers

1

Recruitment center

Name of recruitment center

Sina Hospital in Hamadan City

Full name of responsible person

Milad Molaii

Street address

Sina Hospital, Mirzadeh Eshghi Ave.

City

Hamadan

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6517838695

Phone

+98 81 3827 4184

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molaiimilad@yahoo.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Hamedan University of Medical Sciences

Full name of responsible person

Dr Saeid Bashirian

Street address

Hamadan University of Medical Sciences, Shahid Fahmideh Ave

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info.research@umsha.ac.ir

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Hamedan 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

Hamedan University of Medical Sciences

Full name of responsible person

Milad Molaii

Position

Medical Student

Latest degree

Medical doctor

Other areas of specialty/work

Ophthalmology

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Person responsible for scientific inquiries

Contact

Name of organization / entity

Hamedan University of Medical Sciences

Full name of responsible person

Dr. Mahdi Alizadeh

Position

Ophthalmologist

Latest degree

Medical doctor

Other areas of specialty/work

Ophthalmology

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Person responsible for updating data

Contact

Name of organization / entity

Hamedan University of Medical Sciences

Full name of responsible person

Dr Jalal Poorolajal

Position

Professor of Epidemiology

Latest degree

Ph.D.

Other areas of specialty/work

Epidemiology

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

Undecided - It is not yet known if there will be a plan to make this available

Study Protocol

Undecided - It is not yet known if there will be a plan to make this available

Statistical Analysis Plan

Undecided - It is not yet known if there will be a plan to make this available

Informed Consent Form

Undecided - It is not yet known if there will be a plan to make this available

Clinical Study Report

Undecided - It is not yet known if there will be a plan to make this available

Analytic Code

Undecided - It is not yet known if there will be a plan to make this available

Data Dictionary

Undecided - It is not yet known if there will be a plan to make this available