Clinical Trial Protocol
Iranian Registry of Clinical Trials

16 Sep 2026

Comparison of Nd: YAG laser posterior capsulotomy with two Cruciate and Circular techniques

Protocol summary

Summary

The aim of present study is to compare the safety and efficacy of two Nd: YAG laser capsulotomy techniques. The main inclusion criteria were having cataract surgery at least 3 months ago. the population were included patients with history of cataract in 3 month ago. In this randomized clinical trial, sample size was 100 eyes of patients with posterior capsular opacification. The eyes were randomly divided in two groups. 50 eyes were selected to undergo a cruciate capsulotomy and the other 50 eyes were selected to undergo a circular capsulotomy. Main outcome were best-corrected visual acuity, intraocular pressure, amount of energy used and floater symptoms or glare.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201207037466N4**
Registration date: **2016-11-26, 1395/09/06**
Registration timing: **retrospective**

Last update:
Update count: **0**

Registration date

2016-11-26, 1395/09/06

Registrant information

Name

Reza Rezaei

Name of organization / entity

Ophtalmologist

Country

Iran (Islamic Republic of)

Phone

+98 912 239 1814

Email address

dr.rezarezaei@arakmu.ac.ir

Recruitment status

Recruitment complete

Funding source

Arak University of Medical Sciences, Deputy of Education and research

Expected recruitment start date

2014-09-23, 1393/07/01

Expected recruitment end date

2015-05-22, 1394/03/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of Nd: YAG laser posterior capsulotomy with two Cruciate and Circular techniques

Public title

Detection of different surgery method on visual acuity

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion Criteria: Age over 40 year; 3 months after having cataract surgery in 3 month ago; PCO≥2;
Exclusion Criteria: Not wanting to take part in the study; Having adverse effect;

Age

From **40 years** old to **100 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **100**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Double blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethic committee of Arak University of Medical Sciences

Street address

Arak University of Medical Sciences, Basij Sq., Arak, Iran

City

Arak

Postal code

Approval date

2014-09-23, 1393/07/01

Ethics committee reference number

93-176-8

Health conditions studied

1

Description of health condition studied

cataract

ICD-10 code

H25

ICD-10 code description

Senile cataract

Primary outcomes

1

Description

visual acuity

Timepoint

1 day after injection,1 week, 1 month & 3 month

Method of measurement

log mar

Secondary outcomes

1

Description

IOP

Timepoint

1 day after injection,1 week, 1 month & 3 month

Method of measurement

Tonometer

Intervention groups

1

Description

Posterior capsulotomy by cross method

Category

Treatment - Surgery

2

Description

Posterior capsulotomy with ring method

Category

Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Amir Kabir Hospital

Full name of responsible person

Dr Reza Rezaeie

Street address

Amir Kabir Hospital, Alamolhoda Street, Shaheed Shroudi Street, Arak, Iran

City

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Arak University of Medical Science

Full name of responsible person

Dr Mohammad Rafiei

Street address

Arak University of Medical Science, Basij Sq., Arak, Iran

City

Arak

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Arak University of Medical Science

Proportion provided by this source

100

Public or private sector

empty

Domestic or foreign origin

empty

Category of foreign source of funding

empty

Country of origin

Type of organization providing the funding

empty

Person responsible for general inquiries

Contact

Name of organization / entity

Arak University of Medical Sciences

Full name of responsible person

Dr Reza Rezaei

Position

Assistant Professor/ophthalmologist

Other areas of specialty/work

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

empty

Study Protocol

empty

Statistical Analysis Plan

empty

Informed Consent Form

empty

Clinical Study Report

empty

Analytic Code

empty

Data Dictionary

empty