

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

The efficacy of topical castor oil in the treatment of dark circles: a non-randomized uncontrolled clinical trial

Protocol summary

Study aim

Determining the effect of topical castor oil in the treatment of dark circles under the eyes

Design

Clinical trial without control group, non-randomized, phase 2 on 15 patients.

Settings and conduct

Samples include the patients with dark circles who refer to the Shahid Faghih Dermatology Clinic.

Participants/Inclusion and exclusion criteria

Inclusion criteria: Age over 18 years, Existence of dark circles under the eyes that are not caused by systemic and vascular disease, Approved by a dermatologist.

Exclusion criteria: Patients with systemic diseases such as diabetes, hyperlipidemia, as well as liver, kidney and thyroid diseases, Patients with other dermatological conditions, Use of any systemic medication, Use any topical medication to remove dark circles under the eyes for at least the past month, Hypersensitivity reaction to castor oil, Pregnant and lactating women, Dissatisfaction with participating in the study

Intervention groups

Participants in this study receive a cream formulation of castor oil 50% prepared at Shiraz School of Pharmacy. The dose of medication is twice a day for two months.

Main outcome variables

The level of darkness of dark circles under eyes

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20150825023753N16**

Registration date: **2020-10-18, 1399/07/27**

Registration timing: **prospective**

Last update: **2020-10-18, 1399/07/27**

Update count: **0**

Registration date

2020-10-18, 1399/07/27

Registrant information

Name

Mohammad Mahdi Parvizi

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 71 3212 5592

Email address

parvizim@sums.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2020-10-22, 1399/08/01

Expected recruitment end date

2021-02-18, 1399/11/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The efficacy of topical castor oil in the treatment of dark circles: a non-randomized uncontrolled clinical trial

Public title

The efficacy of topical castor oil in the treatment of dark circles

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Age over 18 years Existence of dark circles under the

eyes that are not caused by systemic and vascular disease Approved by a dermatologist

Exclusion criteria:

Patients with systemic diseases such as diabetes, hyperlipidemia, as well as liver, kidney and thyroid diseases Patents with other dermatological conditions Use of any systemic medication 75/5000 Use any other topical medication to remove dark circles under the eyes for at least the past month Hypersensitivity reaction to castor oil Pregnant and lactating women Dissatisfaction with participating in the study

Age

From **18 years** old

Gender

Both

Phase

2

Groups that have been masked

No information

Sample size

Target sample size: **15**

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 Medical School of Shiraz
University of Medical Sciences

Street address

Medical School of Shiraz University of Medical
Sciences

City

Shiraz

Province

Fars

Postal code

7134845794

Approval date

2020-07-20, 1399/04/30

Ethics committee reference number

IR.SUMS.MED.REC.1399.246

Health conditions studied

1

Description of health condition studied

Dark circles under eyes

ICD-10 code

H02.71

ICD-10 code description

Chloasma of eyelid and periocular area

Primary outcomes

1

Description

The level of darkness of dark circles

Timepoint

The level of darkness is measured at the beginning of the study, then one month and two months later.

Method of measurement

Using Visioface 1000D

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: Participants in this study receive a cream formulation of castor oil 50% prepared at Shiraz School of Pharmacy. The dose of medication is twice a day for two months.

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Shahid Faghihi Dermatology Clinic

Full name of responsible person

Dr. Nasrin Saki

Street address

Shahid Faghihi Hospital, Zand Avenue

City

Shiraz

Province

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Postal code

71348466114

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Email

nasrinsa85@yahoo.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Shiraz University of Medical Sciences

Full name of responsible person

Dr. Abbas Rezaianzadeh

Street address

7th floor, Vice Chancellor of Research, Shiraz
University of Medical Sciences, Zand Blvd., Shiraz,
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vcrdep@sums.ac.ir

Grant name**Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

Yes

Title of funding source

Shiraz 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**

Shiraz University of Medical Sciences

Full name of responsible person

Dr. Mohammad Mahdi Parvizi

Position

Assistant professor

Latest degree

Ph.D.

Other areas of specialty/work

Traditional Medicine

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Person responsible for scientific inquiries

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Position

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Person responsible for updating data

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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

Demographic data and the result of the clinical trial

When the data will become available and for how

long

One year later

To whom data/document is available

Researchers

Under which criteria data/document could be used

After publication of the extracted article of the clinical trial

From where data/document is obtainable

Sending Email to the researchers

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

Sending the request via the email

Comments