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, Patents 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
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Iran (Islamic Republic of)
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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 75/5000Use 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
Fars
Postal code
71348466114
Phone
+98 71 3212 5592
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, Iran
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7134814336
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Email
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
Assisstant professor
Latest degree
Ph.D.
Other areas of specialty/work
Traditional Medicine
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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