Clinical Trial Protocol
Iranian Registry of Clinical Trials

17 Sep 2026

Efficacy of blue light versus topical steroid in treatment of plaque psoriasis lesions: A randomized clinical trial

Protocol summary

Study aim

To compare the efficacy of blue light and topical steroid in treatment of plaque psoriasis lesions

Design

This is a double-blind, second phase clinical trial with a non-randomized design. The study incorporates 20 patients with inclusion criteria who refer to the Clinic of Dermatology in the Mashhad-based Ghaem Hospital and Imam Reza Hospital from April 2018 to April 2019. Cutaneous lesions of the patients will be assigned into two groups of light blue or topical steroids without randomization.

Settings and conduct

The study is non-blinded and will be performed in the dermatology clinics of Gham and Imam Reza hospitals in Mashhad.

Participants/Inclusion and exclusion criteria

Main inclusion criteria comprise of patients suffering from limited psoriatic plaque with at least two bilateral localized plaques and a maximum size of four centimeters; intent to participate; not receiving topical psoriasis medications from at least a month ago and systemic therapy or phototherapy from two months ago; and location of lesions on extremities or trunk. Major exclusion criteria involve history of consuming photosensitizing medications and arthropathic psoriasis.

Intervention groups

In the intervention group, the lesions will be treated by light emitted from Lightcure device for 15 minutes per session 3 times weekly for 4 consecutive weeks. In the control group, lesions will be treated by a moderate topical steroid (fluocinnolone ointment 0.1 percent) every eight hours for 4 consecutive weeks.

Main outcome variables

The main outcomes include the Localized Psoriasis Severity Index and therapy complications.

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20140519017756N42**
Registration date: **2018-04-27, 1397/02/07**
Registration timing: **registered_while_recruiting**

Last update: **2018-04-27, 1397/02/07**
Update count: **0**

Registration date

2018-04-27, 1397/02/07

Registrant information

Name

Mohammad Bagher Roozgar

Name of organization / entity

Birjand University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 56 3239 5680

Email address

mbroozgar@bums.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2018-03-21, 1397/01/01

Expected recruitment end date

2019-04-20, 1398/01/31

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title
Efficacy of blue light versus topical steroid in treatment of plaque psoriasis lesions: A randomized clinical trial

Public title
Effects of blue light and topical steroid on plaque psoriasis lesions
Purpose
Treatment
Inclusion/Exclusion criteria
Inclusion criteria:
Age from 18 to 80 years Patients suffering from limited psoriatic plaque with at least two bilateral localized plaques and a maximum size of four centimeters Not receiving topical psoriasis medications from at least a month ago and systemic therapy or phototherapy from two months ago Informed written consent to participate in the study The location of lesions on extremities or trunk
Exclusion criteria:
history of photodermatosis history of porphyrias History of consuming photosensitizing medications Arthropathic psoriasis
Age
From **18 years** old to **80 years** old
Gender
Both

Phase
2
Groups that have been masked
No information
Sample size
Target sample size: **20**
More than 1 sample in each individual
Number of samples in each individual: **2**
Cutaneous lesions in the left side of a patient's body will be taken as the intervention and those of the right side as the control group.
Randomization (investigator's opinion)
Not randomized
Randomization description
Cutaneous lesions of the patients will be randomized into two groups of light blue or topical steroids using randomized blocks (1:1 allocation).
Blinding (investigator's opinion)
Not blinded
Blinding description
Placebo
Not used
Assignment
Parallel
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Ethics Committee of Mashhad University of Medical Sciences
Street address
Daneshgah Ave.
City
Mashhad
Province
Razavi Khorasan
Postal code
9138735499
Approval date
2012-10-20, 1391/07/29
Ethics committee reference number
IR.MUMS.REC.1391.304

Health conditions studied

1

Description of health condition studied
plaque psoriasis lesions
ICD-10 code
L40
ICD-10 code description
Psoriasis

Primary outcomes

1

Description
Localized Psoriasis Severity Index
Timepoint
Before treatment and one week after the treatment is completed
Method of measurement
physical examination

Secondary outcomes

1

Description
Pigmentation
Timepoint
once a week in the course of treatment
Method of measurement
physical examination

2

Description
burning
Timepoint
once a week in the course of treatment
Method of measurement
physical examination

3

Description

redness

Timepoint

once a week in the course of treatment

Method of measurement

physical examination

Intervention groups

1

Description

Intervention Group (blue light): In the intervention group, the lesions will be treated by light emitted from Lightcure device for 15 minutes per session 3 times weekly for 4 consecutive weeks.

Category

Treatment - Other

2

Description

Control Group (topical steroid): In the control group, lesions will be treated by a moderate topical steroid (fluocinnolone ointment 0.1 percent) every eight hours for 4 consecutive weeks.

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Dermatology Clinic of Ghaem Hospital

Full name of responsible person

Dr Pouran Layegh

Street address

Ahmadabad Ave.

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Phone

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Email

LayeghPo@mums.ac.ir

2

Recruitment center

Name of recruitment center

Dermatology Clinic of Imam Reza Hospital

Full name of responsible person

Dr Masoud Maleki

Street address

Daneshgah Ave.

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Mashhad University of Medical Sciences

Full name of responsible person

Dr Mohsen Tafaghod

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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

Dr Zeinab Memarzadeh

Position

Resident of Dermatology

Latest degree

Medical doctor

Other areas of specialty/work

General Practitioner

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Person responsible for scientific inquiries

Contact
Name of organization / entity
Mashhad University of Medical Sciences
Full name of responsible person
Dr Pouran Layegh
Position
Dermatologist
Latest degree
Specialist
Other areas of specialty/work
General Practitioner
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Person responsible for updating data

Contact
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Birjand University of Medical Sciences
Full name of responsible person
Mohammad Bagher Roozgar
Position
Translator
Latest degree
Master
Other areas of specialty/work
Others
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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
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
Title and more details about the data/document
Deidentified Individual Participant Data Set will be provided in an excel file and provided on the research project website: http://yon.ir/xzDIR
When the data will become available and for how long
when the study is completed and for 5 years
To whom data/document is available
Those who refer to the project's website
Under which criteria data/document could be used
Only for research purposes
From where data/document is obtainable
the research website addressed at http://yon.ir/xzDIR
What processes are involved for a request to access data/document
If a request is delivered via email, the deidentified data file will be sent within 10 days.
Comments