

Clinical Trial Protocol

Iranian Registry of Clinical Trials

13 Jun 2026

Comparison of the effect of CO2 laser versus cryotherapy on the treatment of plantar warts: a randomized clinical trial

Protocol summary

2019-05-11, 1398/02/21

Study aim

To compare the effect of CO2 laser versus cryotherapy on the treatment of plantar warts

Design

This is a randomized clinical trial, phase II, in which 66 eligible patients will be randomly assigned to the intervention and control groups

Settings and conduct

The eligible patients with plantar warts who will refer to Sina Hospital in Hamadan City during the study period will be enrolled in the trial and the right and left side of the patients will be randomly assigned to the intervention and control groups through the drawing of lots.

Participants/Inclusion and exclusion criteria

Inclusion criteria: Age of 6 to 80 years; Bilateral plantar warts. Exclusion criteria: Pregnancy or breastfeeding; Immunodeficiency; Active skin disease; Coagulopathy.

Intervention groups

Intervention group: CO2 laser with a power of 10 to 30 W one or two pulse every two weeks for 2 months Control group: Cryotherapy using liquid nitrogen for 20 seconds once every two weeks for 2 months

Main outcome variables

Improvement of the lesion

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20120215009014N275**

Registration date: **2019-05-11, 1398/02/21**

Registration timing: **prospective**

Last update: **2019-05-11, 1398/02/21**

Update count: **0**

Registration date

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

poorolajal@umsha.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2019-08-23, 1398/06/01

Expected recruitment end date

2020-11-21, 1399/09/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of the effect of CO2 laser versus cryotherapy on the treatment of plantar warts: a randomized clinical trial

Public title

Comparison of the effect of CO2 laser versus cryotherapy on the treatment of plantar warts

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Age of 6 to 80 years Bilateral plantar warts

Exclusion criteria:

Pregnancy or breastfeeding Immunodeficiency Active skin disease Coagulopathy

Age

From **6 years** old to **80 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **66**

Randomization (investigator's opinion)

Randomized

Randomization description

Random assignment of the right and left sides of the patients to the intervention and control groups through the drawing of lots. To do this, we prepare two sheets and write "intervention" on one sheet and "control" on another. Then, by referring each patient, one of the sheets will be randomly taken and the right side of the patient will be assigned to the intervention and the other side to the control group.

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 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

2019-04-27, 1398/02/07

Ethics committee reference number

IR.UMSHA.REC.1398.009

Health conditions studied

1

Description of health condition studied

Plantar warts

ICD-10 code

B07

ICD-10 code description

Viral warts

Primary outcomes

1

Description

Assessing the improvement of the lesion

Timepoint

2 months after the intervention

Method of measurement

By physical examination

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: CO2 laser with a power of 10 to 30 W one or two pulse every two weeks for 2 months

Category

Treatment - Other

2

Description

Control group: Cryotherapy using liquid nitrogen for 20 seconds once every two weeks for 2 months

Category

Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Sina Hospital in Hamadan City

Full name of responsible person

Dr Faeze Mohammadi

Street address

Sina Hospital, Mirzadeh Eshghi Ave.

City

Hamadan

Province

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Postal code

6517838695

Phone

+98 81 3827 4184

Email

faeze.m2991@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

Hamedan University of Medical Sciences, Shahid Fahmideh Ave

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+98 81 3838 0717

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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

Dr Faeze Mohammadi

Position

Resident of Dermatology

Latest degree

Medical doctor

Other areas of specialty/work

Dermatology

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Sina Hospital, Mirzadeh Eshghi Ave.

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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. Mohammad Reza Sobhan

Position

Dermatologist

Latest degree

Medical doctor

Other areas of specialty/work

Dermatology

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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