

Clinical Trial Protocol

Iranian Registry of Clinical Trials

17 Sep 2026

Effect of use and without use of laser treatment on CO2 oral lichen planus damage

Protocol summary

Summary

The present study aims to investigate the effect on lichen damage CO2 oral laser planus treatment. It is a clinical single blind experiment. Among 183 oral lichen planus patients, 50 patients who did not recover using local corticosteroid were selected and, then, randomly divided to two groups of 25 patients as experiment and control group. The control group continued medication using local corticosteroid (Betamethasone pill .5 as daily mouthwash three times a day) and experiment group makes use of CO2 where first laser determines pain and burning rate using CO2 and VAS (measuring scale ruler), then start treating using laser at its highest power 2 watt and CO2 at the needed defocused distance away 1cm) reflecting on friction. Later hydrochloride CO2 wash mouth Amen Benzyd laser is prescribed for 5 days. Then each group is checked in 15 days, one, three and six month intervals and VAS damage size is measured by ruler scale and recorded accordingly. Inclusion criteria: written satisfaction by patients, those who OLP is certified by a pathologist since two years ago and has been treated by local corticosteroid. Exclusion criteria: patients who were treated using local corticosteroid.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2014110414333N21**

Registration date: **2014-11-27, 1393/09/06**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2014-11-27, 1393/09/06

Registrant information

Name

Feizollah Foroughi

Name of organization / entity

kermanshah University of Medical Sciences

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Recruitment status

Recruitment complete

Funding source

Kermanshah University of Medical Sciences

Expected recruitment start date

2014-04-21, 1393/02/01

Expected recruitment end date

2014-11-21, 1393/08/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of use and without use of laser treatment on CO2 oral lichen planus damage

Public title

Effect of laser treatment on CO2 oral lichen planus damage

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: written satisfaction by patients, those who OLP is certified by a pathologist since two years ago and has been treated by local corticosteroid. Exclusion criteria: patients who were treated using local corticosteroid.

Age

From **25 years** old to **60 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **50**

Randomization (investigator's opinion)

Randomized

Randomization description**Blinding (investigator's opinion)**

Single blinded

Blinding description**Placebo**

Not used

Assignment

Parallel

Other design features**Secondary Ids**

empty

Ethics committees**1****Ethics committee****Name of ethics committee**

Kermanshah University of Medical Sciences

Street address

Building No.2, Shahid Beheshti, Vice Chancellor for Research Affairs, Kermanshah University of Medical Sciences

City

Kermanshah

Postal code**Approval date**

2014-11-11, 1393/08/20

Ethics committee reference number

420/7/35214/پ

Health conditions studied**1****Description of health condition studied**

oral lichen planus

ICD-10 code

L43

ICD-10 code description

Lichen planus

Primary outcomes**1****Description**

Pain rate

Timepoint

One day, one, three and six month after 15 medical intervention

Method of measurement

Based on visual pain scale (VAS)

2**Description**

Burning rate

Timepoint

One day, one, three and six month after 15 medical intervention

Method of measurement

Based on visual pain scale (VAS)

3**Description**

Size of damage

Timepoint

One day, one, three and six month after 15 medical intervention

Method of measurement

Based on visual pain scale (VAS)

Secondary outcomes

empty

Intervention groups**1****Description**

The control group continued medication using local corticosteroid (Betamethasone pill .5 as daily mouthwash three times a day). Then control group is checked in 15 days, one, three and six month intervals and VAS damage size is measured by ruler scale and recorded accordingly.

Category

Treatment - Drugs

2**Description**

The experiment group makes use of CO2 where first laser determines pain and burning rate using CO2 and VAS (measuring scale ruler), then start treating using laser at its highest power 2 watt and CO2 at the needed defocused distance away (1cm) reflecting on friction. Later hydrochloride CO2 wash mouth Amen Benzyl laser is used for 5 days. Experiment group is checked in 15 days, one, three and six month intervals and pain rate and VAS damage size is measured by ruler scale and recorded accordingly.

Category

Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Faculty of Dentistry

Full name of responsible person

Dr. Kianoosh Farhadzadeh

Street address

Faculty of Dentistry, Gisha Building, Zare Alley,
Shariati streets

City

Kermanshah

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice Chancellor for Research Affairs, Kermanshah
University of Medical Sciences

Full name of responsible person

Koroush Hamzehee

Street address

Building No.2, Shahid Beheshti, Vice Chancellor for
Research Affairs, Kermanshah University of Medical
Sciences

City

Kermanshah

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

Yes

Title of funding source

Vice Chancellor for Research Affairs, Kermanshah
University of Medical Sciences

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

Person responsible for scientific inquiries

Contact

Name of organization / entity

Kermanshah University of Medical Sciences

Full name of responsible person

Dr. Hamidreza Mozafari

Position

PhD in Oral and Maxillofacial

Other areas of specialty/work**Street address**

Faculty of Dentistry, Gisha Building, Zare Alley,
Shariati streets

City

Kermanshah

Postal code**Phone**

00

Fax**Email**

Mozaffari@kums.ac.ir

Web page address

Person responsible for updating data

Contact

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