

Clinical Trial Protocol

Iranian Registry of Clinical Trials

18 Sep 2026

Comprasion the Fractional Co2 laser and Pulsed Dye laser with Fractional Co2 laser alone in treatment of striae alba

Protocol summary

Summary

Striae are visible linear scars caused by stretching of skin in areas of dermal injury. Different lasers are used in the treatment of striae. This was a Double blinded comparative study of right and left on 88 striae in patients with striae alba. Sampling was done randomly. Striae were divided into 2 groups on the left and right. On one side, 5 sessions fractional carbon dioxide with pulsed dye laser every 2 weeks were done (3 sessions fractional carbon dioxide and 2 sessions of pulsed dye laser) and on the other side just 3 sessions of fractional carbon dioxide every 4 weeks. fractional CO2 laser: 10600 nm, Flu: 16 ± 2 J/cm² Pulsede dye laser: 585nm, Flu: 5-7 J/cm². All striae alba lesions in patients before treatment and two weeks after the end, were photographed. Photographs before and after treatment were analyzed by the application of Pict Zar, and lesion area was calculated. The photos in this scheme were reviewed and scored by two dermatologists, non-therapist and unaware of used treatment. At the end of the treatment period, patients' satisfaction rate for both methods was evaluated with the questionnaire.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2013123116013N1**

Registration date: **2014-02-10, 1392/11/21**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2014-02-10, 1392/11/21

Registrant information

Name

Zahra Nikyar

Name of organization / entity

Isfahan University of Medical Science

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Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Isfahan University of Medical Sciences

Expected recruitment start date

2012-11-20, 1391/08/30

Expected recruitment end date

2013-09-20, 1392/06/29

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comprasion the Fractional Co2 laser and Pulsed Dye laser with Fractional Co2 laser alone in treatment of striae alba

Public title

Treatment of striae alba with Pulsed dye laser and Fractional Co2 laser

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: striae alba found on the abdomen, hips, thighs and flanks; have not received any previous treatment for striae ; skin types 3 and 4 Exclusion criteria: pregnancy; lactation; stria alba on the chest and arms; previous treatment with medication or laser for

striae; history of local or systemic steroid use; Cushing's syndrome or Ehlers-Danlos syndrome; use of isotretinoin or filler injections in 6 to 12 months Furthermore; performance of dermabrasion or laser skin rejuvenation in previous 6 to 12 months on striae

Age
No age limit

Gender
Female

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **88**

Randomization (investigator's opinion)
Not randomized

Randomization description

Blinding (investigator's opinion)
Double blinded

Blinding description

Placebo
Not used

Assignment
Parallel

Other design features
Double- blinded comparative right and left

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Isfahan University of Medical Sciences Ethics Committee

Street address

Deputy of research of Isfahan University of Medical Science, hezarjerib street, Isfahan

City

Isfahan

Postal code

Approval date

2013-01-23, 1391/11/04

Ethics committee reference number

392210

Health conditions studied

1

Description of health condition studied

striae

ICD-10 code

L90.6

ICD-10 code description

Striae atrophicae

Primary outcomes

1

Description

Striae Area

Timepoint

Baseline and two weeks after the end of laser therapy

Method of measurement

Pictzar software

2

Description

Striae Area

Timepoint

Baseline and after intervention

Method of measurement

4- points scale by dermatologists who were not therapist

Secondary outcomes

1

Description

severe erythema

Timepoint

After each session and every month

Method of measurement

clinical examination

2

Description

hyperpigmentation

Timepoint

after each session and every month

Method of measurement

clinical examination

3

Description

Edema

Timepoint

After each session and every month

Method of measurement

Clinical Examination

4

Description

Patient assessment

Timepoint

End of study

Method of measurement

Visual Analogue Scale(VAS)

Intervention groups

1

Description

On one hand can be treated with Fractional CO2 laser and Pulsed dye lasers in the intermittent sessions. A total of 5 sessions every two weeks (3 sessions Fractional carbon dioxide laser and 2 sessions of pulsed dye laser). Fractional CO2 laser; 10600 nm; 16±2 J/cm2 Pulsed dye laser: 585nm; Flu: 5-7 J/cm2; Spot size:7mm

Category

Treatment - Other

2

Description

On the other hand was treated with 3 sessions with fractional carbon dioxide laser every four weeks. Fractional CO2 laser; 10600 nm; 16±2 J/cm2

Category

Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Al-zahra hospital dermatology clinic

Full name of responsible person

Dr. Zahra Nikyar

Street address

Department of Dermatology; Al-Zahra hospital, Soffeh Avenue

City

Isfahan

2

Recruitment center

Name of recruitment center

Noor and Aliasghar Hospitals dermatology clinics

Full name of responsible person

Dr. Zahra Nikyar

Street address

Ostandari street

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Isfahan University of Medical Sciences

Full name of responsible person

Dr. Ebrahim Esfandiari

Street address

Deputy of research of Isfahan University of Medical Science, hezarjerib street, Isfahan

City

Isfahan

Grant name

Grant code / Reference number

Is the source of funding the same sponsor organization/entity?

Yes

Title of funding source

Isfahan 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

Name of organization / entity

Skin and Leishmaniasis Research Center- Isfahan University of Medical Sciences

Full name of responsible person

Dr. Zahra Nikyar

Position

Resident of dermatology/MD

Other areas of specialty/work

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Person responsible for scientific inquiries

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Name of organization / entity

Skin and Leishmaniasis Research Center-Isfahan University of Medical Sciences

Full name of responsible person

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Position

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Other areas of specialty/work

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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