Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Sep 2026

Investigating The Effect of Erbium yag and Nd yag Laser and comparing to the Er:yag on Striae Alba

Protocol summary

Study aim

1) Evaluation of the effectiveness of the ER YAG laser in the treatment of stria alba 2) Comparison of the effectiveness of Nd YAG laser and Erbium YAG laser in the treatment of stria alba 3) Evaluation of the side effects of Nd and Erbium laser treatment

Design

A controlled, parallel-group, single-blind, randomized clinical trial on 20 patients. A simple randomization method was used.

Settings and conduct

20 patients with striae Alba, bilateral One side of the laser: Nd-YAG and Er: YAG, and the other side of the Er: YAG laser 4 treatment sessions are performed with an interval of one month Erbium energy, which we will use FSO1, LP, Turbo3, energy 18-21 j/cm2 and pulse duration 200 ms And for Nd modes, we will use two modes, one is FRAC3 mode and the other is PIANO, which will be as follows: FRAC3: Energy 25 j/cm2 and pulse duration 1.6 ms Spot 9 mm PIANO: Energy 250 j/cm2 and pulse duration 5s Spot 9mm

Participants/Inclusion and exclusion criteria

Inclusion criteria: Patients with stria alba who have been suffering from the formation of lines for at least 6 months. Patients aged 18 to 50 years. Patients' written consent to participate in the study. Exclusion criteria: Patients with other active skin diseases. Pregnancy or lactation. Not having diabetes or diseases that impair skin healing. Not being treated with corticosteroids or any medication that impairs skin healing.

Intervention groups

20 patients with striae alba should be treated bilaterally One side with laser: Nd-YAG and Er:YAG and the other side with Er:YAG laser 4 treatment sessions are performed at an interval of one month

Main outcome variables

Physician satisfaction and patient satisfaction

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20220924056032N1**
Registration date: **2025-12-05, 1404/09/14**
Registration timing: **prospective**

Last update: **2025-12-05, 1404/09/14**
Update count: **0**

Registration date

2025-12-05, 1404/09/14

Registrant information

Name
safoura shakoei
Name of organization / entity
Country
Iran (Islamic Republic of)
Phone
+98 21 6119 2655
Email address
dr.shakoei@gmail.com

Recruitment status

recruiting

Funding source

Expected recruitment start date

2025-12-06, 1404/09/15

Expected recruitment end date

2027-02-04, 1405/11/15

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Investigating The Effect of Erbium yag and Nd yag Laser and comparing to the Er:yag on Striae Alba

Public title
Laser treatment for steriae alba
Purpose
Treatment
Inclusion/Exclusion criteria
Inclusion criteria:
Patients with striae alba who have been suffering from striae alba for at least 6 months Patients aged 18 to 50 years Patients provided written consent to participate in the study.
Exclusion criteria:
Patients with other active skin diseases. Not be treated with corticosteroids or any medication that interferes with skin healing. Not have diabetes or diseases that interfere with skin healing. Pregnancy or breastfeeding.
Age
From **18 years** old to **50 years** old
Gender
Both

Phase
N/A
Groups that have been masked

- Care provider

Sample size
Target sample size: **20**
Randomization (investigator's opinion)
N/A
Randomization description
Blinding (investigator's opinion)
Double blinded
Blinding description
Twenty patients will be randomly assigned in a single-blinded manner. Patients will be recruited from individuals who visit the laser clinic and meet the inclusion criteria. The patients will be randomly (block randomization) assigned to the right and left sides of the patients, respectively, to receive the following two treatments: 1) Nd: YAG laser treatment. 2) Erbium YAG and nd yag laser treatment
Placebo
Not used
Assignment
Parallel
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Ethics committee of Tehran University of Medical Sciences
Street address
vahdat eslami
City
Tehran
Province
Tehran
Postal code
1419733141
Approval date
2025-04-28, 1404/02/08
Ethics committee reference number
IR.TUMS.MEDICINE.REC.1404.103

Health conditions studied

1

Description of health condition studied
steriae alba
ICD-10 code
L90.6
ICD-10 code description
Striae atrophicae

Primary outcomes

1

Description
Improve striae
Timepoint
Before the intervention (first session), third session, and fifth month
Method of measurement
Patient satisfaction between 0-10 and physician satisfaction between 0-100% with visual analogue method

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: They will undergo Erbium and Nd:YAG laser treatment with the Fotona laser device. Up to 4 sessions will be performed once a month.
Category
Treatment - Devices

2

Description
Control group: They will undergo erbium laser treatment with the Fotona laser device, which will be performed once a month for up to 4 sessions.
Category
Treatment - Devices

Recruitment centers

1

Recruitment center

Name of recruitment center
Razi hospital
Full name of responsible person
safoura shakoei
Street address
Razi hospital, vahdat eslami street, Tehran
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dr.shakoei@gmail.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Tehran University of Medical Sciences
Full name of responsible person
Ramin Kordi
Street address
Keshavarz Boulevard, corner of Qods Street, Central University Organization, 6th Floor, Vice President for Research and Technology
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Province
Tehran
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141765383761
Phone
+98 21 8163 3698
Email
vcr@tums.ac.ir

Grant name

Grant code / Reference number

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

Title of funding source
Tehran 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
Tehran University of Medical Sciences
Full name of responsible person
Safoura Shakoei
Position
Associate professor
Latest degree
Specialist
Other areas of specialty/work
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Person responsible for updating data

Contact

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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
No - There is not a plan to make this available
Statistical Analysis Plan
No - There is not a plan to make this available
Informed Consent Form
No - There is not a plan to make this available
Clinical Study Report
Yes - There is a plan to make this available
Analytic Code
No - There is not a plan to make this available
Data Dictionary
Not applicable
Title and more details about the data/document
It will be made available to researchers upon request from the corresponding author of the study.
When the data will become available and for how long
After published
To whom data/document is available
people working in academic institutions
Under which criteria data/document could be used
Data dissemination is not permitted.
From where data/document is obtainable
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What processes are involved for a request to access data/document
send email
Comments