

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Comparison of the effect of co2 laser versus co2 laser and PRP on periorbital hyperpigmentation

Protocol summary

Summary

The aim of this study is comparing the efficacy of co2 laser versus co2 laser and PRP in patients with POH. 100 women patients are randomly divided into 2 groups. In the first group only co2 laser will be done, in the other group, firstly co2 laser will be done, and immediately after that PRP applied. 3 sessions of treatment with 1 month interval in each group are going to be done. These mentioned 2 groups will be followed for 3 and 6 months. On each following, photos will be taken and compared with previous photos, to evaluate the effect of treatment in POH.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2015103118210N4**

Registration date: **2015-11-29, 1394/09/08**

Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2015-11-29, 1394/09/08

Registrant information

Name

Elham Behrangi

Name of organization / entity

Iran University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 21 6650 2040

Email address

behrangi.e@iums.ac.ir

Recruitment status

Recruitment complete

Funding source

Iran University of Medical Sciences

Expected recruitment start date

2015-09-23, 1394/07/01

Expected recruitment end date

2016-09-23, 1395/07/02

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of the effect of co2 laser versus co2 laser and PRP on periorbital hyperpigmentation

Public title

Comparison of the effect of co2 laser versus co2 laser and PRP on periorbital hyperpigmentation

Purpose

Treatment

Inclusion/Exclusion criteria

inclusion criteria: presence of POH; 20-50 years old; women exclusion criteria: patients with platelet function impairment; severe thrombocytopenia (less than 50000); hemodynamic instability; chronic hematologic disease (diabetes; chronic infection and blood dyscrasia); local inflammatory skin disorder or active herpes infection in site of procedure; consuming anticoagulant drugs or NSAIDs 48 hours before procedure; consuming topical corticosteroids in site of treatment 1 month before procedure; consuming systemic corticosteroids 2 weeks before procedure; fever; cancer (specially bone marrow or hematologic); level of hemoglobin lower than 10 gr in dl.

Age

From **20 years** old to **50 years** old

Gender

Female

Phase

2

Groups that have been masked

No information

Sample size

Target sample size: **100**

Randomization (investigator's opinion)

Randomized

Randomization description

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

ethic committee of Iran University of Medical Sciences

Street address

Iran University-hemmat highway

City

Tehran

Postal code

19922347512

Approval date

2015-09-26, 1394/07/04

Ethics committee reference number

IR.IUMS.REC.1394.26228

Health conditions studied

1

Description of health condition studied

periorbital hyperpigmentation

ICD-10 code

L81.9

ICD-10 code description

Disorder of pigmentation, unspecified

Primary outcomes

1

Description

periorbital hyperpigmentation

Timepoint

3 monyhs and 6 months later

Method of measurement

photography

Secondary outcomes

1

Description

lightening the periorbital skin

Timepoint

3 months and 6 months later

Method of measurement

photography

Intervention groups

1

Description

co2 laser:is an ablative form of laser which affects superficial layer of the skin tissue

Category

Treatment - Devices

2

Description

PRP:platelet rich plasma is uptaken from their blood after centrifuge

Category

Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Rasool hospital

Full name of responsible person

Dr Elham Behrangi

Street address

Sattarkhan st

City

Tehran

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

vice chancellor of Iran University of Medical Sciences research committee

Full name of responsible person

Dr.Morteza Nasserbakht

Street address

Iran University-hemmat highway

City

Tehran

Grant name

Grant code / Reference number

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

Title of funding source
vice chancellor of Iran University of Medical Sciences
research committee

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
empty

Type of organization providing the funding
empty

Person responsible for general inquiries

Contact

Name of organization / entity
Iran University of Medical Sciences

Full name of responsible person
Dr Elham Behrangi

Position
professor

Other areas of specialty/work

Street address
dermatology department,Rasool hospital,Sattarkhan
street

City
Tehran

Postal code
1445613131

Phone
+98 21 6698

Fax
+98 21 6650 2040

Email
behrangi.e@iums.ac.ir

Web page address
www.IUMS.ir

Person responsible for scientific inquiries

Contact

Name of organization / entity
Iran University of Medical Sciences

Full name of responsible person
Dr Elham Behrangi

Position
professor

Other areas of specialty/work

Street address

dermatology department,Rasool hospital,Sattarkhan
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Phone
+98 21 6650 2040

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Person responsible for updating data

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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