Clinical Trial Protocol
Iranian Registry of Clinical Trials

16 Sep 2026

effectiveness of simultaneous fat injection by microfat and nano fat method in improvement of atrophic acne scar

Protocol summary

Study aim
Treatment effects and possible side effects of nano fat and micro fat injection in improvement of atrophic scars due to Acne

Design
Clinical trial without control group, Blinding and randomization have not been done on 13 patient

Settings and conduct
This study will be conducted on 13 patients with atrophic acne scar who will be visiting dermatology clinic in imam reza hospital at first fat will be harvested then via sedimentation method blood and tumesent fluid will be separated from fat, and at last the final product will be injected intradermally using a 1 cc syringe and microfat via a cannula 21 gauge subdermal with a 1 cm space between each injection site Patient assessment recovery will be preformed 3 months later

Participants/Inclusion and exclusion criteria
Patients over 23 years of age with Acne scars ; At least one year since the active Acne recovered; Patient consent Exclusion criteria: Under 23 and over 45 years of age; Mental Illness Bleeding disorders or usage of anticoagulants; Pregnancy and Lactation

Intervention groups
consent will be obtained from patients more than 23 years of age with Acne scar before entering the study Technique: First Fat will be harvested, Then, will be separated from the blood and tumescent solution by sedimentation method, after that micro and nano-fat will be prepared by emulsifying the fat via 2.4, 1.4 and 1.1 size connectors then the final product will be transferred to 1 cc syringes and injected with 30 gauge needles at intervals of 1 cm. and micro fat via cannula 21 gauge injected

Main outcome variables
Change in scar intensity based on it color, depth and consistency

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20200526047577N2**
Registration date: **2022-08-30, 1401/06/08**
Registration timing: **prospective**

Last update: **2022-08-30, 1401/06/08**
Update count: **0**

Registration date
2022-08-30, 1401/06/08

Registrant information

Name
Mohammed Tehami

Name of organization / entity

Country
Iran (Islamic Republic of)

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+98 51 3838 3903

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mohd.tehami@gmail.com

Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2022-09-04, 1401/06/13

Expected recruitment end date
2022-10-07, 1401/07/15

Actual recruitment start date
empty

Actual recruitment end date
empty

Trial completion date
empty

Scientific title

effectiveness of simultaneous fat injection by microfat and nano fat method in improvement of atrophic acne scar

Public title
Effect of fat injection in improvement of atrophic Acne scar
Purpose
Treatment
Inclusion/Exclusion criteria
Inclusion criteria:
Atrophic scars due to acne did not seek treatment for the last 12 monthsAtrophic Acne scar had occurred at least 3 months ago
Exclusion criteria:
Patients with Bleeding disorders, Patient who did not fill a consent form, Patient with comorbidities e.g. Diabetes Mellitus, Hyper tension or autoimmune disorders, Pregnancy and breastfeeding
Age
From **23 years** old to **45 years** old
Gender
Both

Phase
N/A
Groups that have been masked
No information
Sample size
Target sample size: **13**
Randomization (investigator's opinion)
N/A
Randomization description
Blinding (investigator's opinion)
Not blinded
Blinding description
Placebo
Not used
Assignment
Single
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Ethics committee of Mashhad University of Medical Sciences
Street address
Central Building of Mashhad University of Medical Scineces (Ghorashi), Daneshgah 16, Daneshgah street
City
mashhad
Province
Razavi Khorasan
Postal code
9177899191
Approval date
2022-04-26, 1401/02/06
Ethics committee reference number
IR.MUMS.MEDICAL.REC.1401.124

Health conditions studied

1

Description of health condition studied
atrophic acne scar
ICD-10 code
L70.0
ICD-10 code description
Acne vulgaris

Primary outcomes

1

Description
Change in scar intensity based on it color and depth and consistency
Timepoint
3 months
Method of measurement
The patient and observer scar assessment scale (POSAS) و عکس اسکار بیمار

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: Patients over 23 years of age with acne scars
Category
Treatment - Surgery

Recruitment centers

1

Recruitment center
Name of recruitment center
Dermatology Clinic, Imam Reza a. Hospital
Full name of responsible person
Hassan Mohammadi
Street address
Ibin sina street, Imam Reza a Hospital
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Sponsors / Funding sources

1

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Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
No
Title of funding source
Mashhad 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
Mashhad University of Medical Sciences
Full name of responsible person
Hassan Mohammadi
Position
رزیدنت
Latest degree
Medical doctor
Other areas of specialty/work
Dermatology
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Person responsible for updating data

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Sharing plan

Deidentified Individual Participant Data Set (IPD)
Yes - There is a plan to make this available
Study Protocol
Yes - There is a plan to make this available
Statistical Analysis Plan
Yes - There is a plan to make this available
Informed Consent Form
Yes - There is a plan to make this available
Clinical Study Report
Yes - There is a plan to make this available
Analytic Code
Not applicable
Data Dictionary
Not applicable
Title and more details about the data/document
All data can be shared after patient are made unidentified.
When the data will become available and for how long
Data can be accessible 6 months after results are published
To whom data/document is available
Data will be available for researchers in universities and other scientific institutes.
Under which criteria data/document could be used
Carrying out analysis on data is permitted.
From where data/document is obtainable
Data can be accessible through sending an email to the corresponding author. ha.mohammadi1399@gmail.com
What processes are involved for a request to access data/document
After sending a request email to the corresponding author, data will be sent in 1 month
Comments