Clinical Trial Protocol
Iranian Registry of Clinical Trials

16 Sep 2026

Comparison of two methods of using suture and diode laser tissue soldering on closing incisions created after alar resection surgery.

Protocol summary

Study aim
Comparison of two methods of using suture and diode laser tissue soldering on closing incisions created after alar resection surgery

Design
A clinical trial with a control group with a parallel-group design, double-blind; randomized; Phase 2-3, on 23 patients. Block randomization method will be used for randomization.

Settings and conduct
This controlled clinical trial study is conducted in 2023 at the Basth Hospital in Hamedan. Incisions created after nasal resection surgery are compared to two laser and suture procedure.

Participants/Inclusion and exclusion criteria
Inclusion criteria: 18 years and more; The first experience with nose surgery; Requires surgical resection of the nasal bridge. Exclusion criteria: Trauma patients, Congenital defects

Intervention groups
Intervention group: On one side of the nose, the incision site is sutured with a diode laser (808 nm, 0.5 W in 5 seconds), and on the other side, the incision site is sutured with Supa 6 zero nylon thread.

Main outcome variables
The quality of the cut closure, Infection, and Dehiscence

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20160523028008N28**
Registration date: **2023-06-17, 1402/03/27**
Registration timing: **prospective**

Last update: **2023-06-17, 1402/03/27**
Update count: **0**

Registration date
2023-06-17, 1402/03/27

Registrant information

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Name of organization / entity
Hamadan University of Medical Sciences

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Iran (Islamic Republic of)

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Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2023-07-06, 1402/04/15

Expected recruitment end date
2023-09-22, 1402/06/31

Actual recruitment start date
empty

Actual recruitment end date
empty

Trial completion date
empty

Scientific title
Comparison of two methods of using suture and diode laser tissue soldering on closing incisions created after alar resection surgery.

Public title
Using suture and diode laser tissue soldering on closing incisions created after alar resection surgery.

Purpose
Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Eighteen years and older. The first experience of nose surgery Requires surgical resection of nasal bridge

Exclusion criteria:

Trauma patients Congenital defects

Age

From **18 years** old

Gender

Both

Phase

2-3

Groups that have been masked

No information

Sample size

Target sample size: **23**

Randomization (investigator's opinion)

Randomized

Randomization description

Block randomization will randomly assign the cases to intervention and control groups. For this purpose, we will prepare four sheets of paper, writing on two sheets the name of the intervention and on the other two sheets the name of the control. The paper sheets will be pooled, placed in a container, and randomly drawn one at a time for each patient without replacement until all four sheets are removed. The four paper sheets will be then placed back into the container, and this action will be repeated until the sample size is reached.

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

Research Ethic Committee of Hamadan University of Medical Sciences

Street address

Vice-chancellor of Research the Technology, Hamadan University of Medical Sciences, Shahid Fahmideh

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Province

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6517838695

Approval date

2023-05-20, 1402/02/30

Ethics committee reference number

IR.UMSHA.REC.1402.183

Health conditions studied

1

Description of health condition studied

alar resection surgery

ICD-10 code

Z41.1

ICD-10 code description

Encounter for cosmetic surgery

Primary outcomes

1

Description

The quality of the cut closure

Timepoint

A week, a month and 6 months later

Method of measurement

Examination of the incision site with Stony Brook Scar Evaluation Scale

2

Description

Infection

Timepoint

Examination of the incision site

Method of measurement

Examination of the incision site

3

Description

Dehiscence

Timepoint

Examination of the incision site

Method of measurement

Examination of the incision site

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group:On one side of the nose, the cutting site is treated with a diodes laser (808 nm, 0.5W in 5 seconds).

Category

Treatment - Devices

2

Description

Control group: On one side of the nose, the incision is sutured with Supa 6 zero nylon thread.

Category

Treatment - Devices

Recruitment centers

1

Recruitment center

Name of recruitment center
Besat Hospital

Full name of responsible person
Mohammad Reza Jamalpour

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Hamedan University of Medical Sciences

Full name of responsible person
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Grant name

Grant code / Reference number

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

Title of funding source
Hamedan 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
Hamedan University of Medical Sciences

Full name of responsible person
Mohammad Mehdi Rezvani

Position
Resident

Latest degree
Medical doctor

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General Surgery

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Specialist

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Person responsible for updating data

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Sharing plan

Deidentified Individual Participant Data Set (IPD)
No - There is not a plan to make this available
Justification/reason for indecision/not sharing IPD
No - There is not 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
No - There is not a plan to make this available
Analytic Code
No - There is not a plan to make this available
Data Dictionary
No - There is not a plan to make this available