

Clinical Trial Protocol

Iranian Registry of Clinical Trials

12 Jun 2026

A comparative study on cosmetic outcomes and hair follicular density of the surgical site incision in standard reverse question mark incision and L.G Kemp incision in patients undergoing Frontotemporoparietal craniotomy Surgery

Protocol summary

Study aim

Determining the effect of two methods of scalp incision L.G Kempe and Reverse question mark in terms of aesthetic effect and on the density of follicles on the incised area in patients undergoing Frontotemporoparietal Decompressive surgery.

Design

Patients who are candidates for frontotemporoparietal craniotomy surgery are randomly divided into two groups by permutation block method. Biopsy of the sites to be taken and aesthetic evaluation is performed using SBSSES and direct questioning from the patient. The results will be compared with the previous sample of the patient in the two groups.

Settings and conduct

Patients who are candidates for frontotemporoparietal craniotomy surgery are randomly divided into two groups by permutation block method. Biopsy of the sites to be taken and aesthetic evaluation is performed using SBSSES and direct questioning from the patient. The results will be compared with the previous sample of the patient in the two groups.

Participants/Inclusion and exclusion criteria

People between the ages of 18-65 who do not have an underlying disorders affecting follicular hair growth

Intervention groups

group 1: patients undergoing reverse question mark(standard) frontotemporoparietal craniotomy group 2: patients undergoing LG-Kemp frontotemporoparietal craniotomy

Main outcome variables

LG kempe group hair follicular density, standard group hair follicular density, SBSSES score

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20180906040962N1**

Registration date: **2020-10-06, 1399/07/15**

Registration timing: **retrospective**

Last update: **2020-10-06, 1399/07/15**

Update count: **0**

Registration date

2020-10-06, 1399/07/15

Registrant information

Name

Behnia Ahmadi Halili

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 61 3225 5339

Email address

behnia.1994@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2019-09-23, 1398/07/01

Expected recruitment end date

2020-09-22, 1399/07/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

A comparative study on cosmetic outcomes and hair follicular density of the surgical site incision in standard reverse question mark incision and L.G Kemp incision in patients undergoing Frontotemporoparietal craniotomy Surgery

Public title

A comparative study on cosmetic outcomes and hair follicular density of the surgical site incision in standard reverse question mark incision and L.G Kemp incision in patients undergoing Frontotemporoparietal craniotomy Surgery

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

candidates for frontotemporoparietal or lg kep craniotomy age 18-65

Exclusion criteria:

traumatic scar wor wound in the craniotomy site history of radiation therapy diabetes mellitus vascular diseases dermatologic diseases (e.g psoriasis, alpoecia, etc.) use of immunosuppressive drugs

Age

From **18 years** old to **65 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **80**

More than 1 sample in each individual

Number of samples in each individual: **2**

salp biopsy

Randomization (investigator's opinion)

Randomized

Randomization description

Patients are randomly divided into two groups by permutation block method. In this way, patients will be randomly divided into a group of 40 blocks, which includes two groups in equal numbers and in the same time sequence, into a group of 20 people and a group of 20 controls.

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

ethics committee of Ahaz Jundishapour university of medical sciencs

Street address

Golestan Blvd, Golestan, Ahvaz

City

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Province

Khuzestan

Postal code

6174758965

Approval date

2020-03-11, 1398/12/21

Ethics committee reference number

ir.ajums.hgolestan.rec.1399.004

Health conditions studied

1

Description of health condition studied

craniotomy

ICD-10 code

S06.2X

ICD-10 code description

Diffuse traumatic brain injury

Primary outcomes

1

Description

follicular density of the scalp

Timepoint

6 months

Method of measurement

mean number per HPF

Secondary outcomes

1

Description

aesthetics evaluation

Timepoint

6 months

Method of measurement

Stony Brook Scar Evaluation Scale(SBSES), and direct question from the patient

Intervention groups

1

Description

Patients undergoing LG Kemp incision craniotomy. Before

the operation, a skin biopsy will be taken from the incision area in the area described in the procedure. Six months later, another biopsy is taken from the affected area and compared with the preoperative sample for follicular density. Wound scars will also be assessed by the SBSSES scoring system.

Category

Treatment - Surgery

2**Description**

Control group: Patients undergoing standard reverse question mark incision craniotomy. Before the operation, a skin biopsy will be taken from the incision area in the area described in the procedure. Six months later, another biopsy is taken from the affected area and compared with the preoperative sample for follicular density. Wound scars will also be assessed by the SBSSES scoring system.

Category

Treatment - Surgery

Recruitment centers**1****Recruitment center****Name of recruitment center**

Golestan hospital

Full name of responsible person

Hossein Safari

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<https://hgolestan.ajums.ac.ir/fa-IR/hgolestan.ajums.ac/41307/news/view/68973/71793/Staging>

Sponsors / Funding sources**1****Sponsor****Name of organization / entity**

Ahvaz University of Medical Sciences

Full name of responsible person

Mehdi Ahmadi Moghaddam

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Web page address**Grant name****Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

Yes

Title of funding source

Ahvaz 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**

Ahvaz University of Medical Sciences

Full name of responsible person

Hossein Safari

Position

assistant professor

Latest degree

Specialist

Other areas of specialty/work

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Person responsible for scientific inquiries**Contact****Name of organization / entity**

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Position

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Latest degree

Specialist

Other areas of specialty/work

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Person responsible for updating data

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Latest degree

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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

There is no more information

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