

Clinical Trial Protocol

Iranian Registry of Clinical Trials

04 Jun 2026

Comparison of Kinesiologic Taping and Pressure Dressing application to Reduce Postoperative Swelling and Pain after Orthognatic Surgery In Skeletal Class III Patients

Protocol summary

Study aim

Comparison of Kinesiologic Taping and Pressure Dressing application to Reduce Postoperative Swelling and Pain after Orthognatic Surgery

Design

single blinded randomized clinical trial with parallel groups on 30 patients. Excel software rand function was used for randomization.

Settings and conduct

Patients undergoing bilateral bimaxillary surgery at the Department of Oral and Maxillofacial Surgery, Imam Hossein hospital, Shahid Behehsti University of Medical Sciences, were included in the present study. Group I included 30 patients and had kinesio tape applied. Group II included 30 patients and had pressure dressing applied. Swelling was assessed using a flexible ruler by measuring the distance between 6 landmarks. The visual analog scale for pain scores were recorded postoperatively at 30 minutes, 1, 6, 12, and 24 hours, and day 2, 5 post operation. The effects of operative time, patient age, gender and BMI were standardized.

Participants/Inclusion and exclusion criteria

Class III skeletal patients who are going under bimaxillary surgery bilaterally. Patients who were: using medications had systemic conditions had osteogenic systemic disease only needed surgery in one jaw pregnant allergic to the tape allergic to the medication protocol under 18 were excluded from the study

Intervention groups

group I: pressure dressing group Four 4*4 inch fluffed sterile gauzes are placed on each side of the face, supported by surgical fix. group II: Kinesio taping group The length of the tape is measured for each patient from the clavicle to the end of the swollen area. The tape passes the Cervical, Subglottic, Mandibular, Submandibular, Pre-auricular, and Parotid lymph nodes until they reach the zygomatic arch. Then, along the

length of the master muscle, tape is attached for more support.

Main outcome variables

edema, pain

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20211205053279N1**

Registration date: **2022-11-26, 1401/09/05**

Registration timing: **registered_while_recruiting**

Last update: **2022-11-26, 1401/09/05**

Update count: **0**

Registration date

2022-11-26, 1401/09/05

Registrant information

Name

Mostafa Alam

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 21 4464 8012

Email address

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2022-05-24, 1401/03/03

Expected recruitment end date

2023-02-22, 1401/12/03

Actual recruitment start date

empty
Actual recruitment end date
empty
Trial completion date
empty
Scientific title
Comparison of Kinesiologic Taping and Pressure Dressing application to Reduce Postoperative Swelling and Pain after Orthognatic Surgery In Skeletal Class III Patients
Public title
Kinesiologic Taping and Pressure Dressing comparison in swelling and pain management after orthognatic surgery
Purpose
Supportive
Inclusion/Exclusion criteria
Inclusion criteria:
Skeletal class III patients, indication for BSSO setback and LeFort1 advancement
Exclusion criteria:
Syndromic Under medications indicates rotational surgery one jaw needs surgery pregnant systemic condition allergic to tapes
Age
From **18 years** old
Gender
Both
Phase
N/A
Groups that have been masked
No information
Sample size
Target sample size: **30**
Randomization (investigator's opinion)
Randomized
Randomization description
Randomized blocks method classified by age and sex
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 Ethics Committees of Research Institute of Dental Sciences- Shahid Beheshti University of M

Street address

No 26, Sharifimanesh St., Andarzgoo Blvd.

City

Tehran
Province
Tehran
Postal code
1934963954

Approval date

2021-12-28, 1400/10/07

Ethics committee reference number

IR.SBMU.DRC.REC.1400.142

Health conditions studied

1

Description of health condition studied

swelling and pain after orthognathic surgery

ICD-10 code

Q67.4

ICD-10 code description

Other congenital deformities of skull, face and jaw

Primary outcomes

1

Description

tissue swelling

Timepoint

immediately post- op; day 1,2,5 post-op

Method of measurement

n order to assess the extent of swelling, 5 distances (in mm) were measured at 6 points on the face with a flexible ruler, from the angle of the mandible to: 1) the tragus skin point, 2) the out- er angle of the eye, 3) the nasal border - wing of the nos- tril 4) the lip angle, and 5) the soft pogonion)

2

Description

pain

Timepoint

30 mins, 1,6,12, 24 hours after surgery. day 2,5 post-op.

Method of measurement

VAS

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: Kinesio taping. kinesio taping is a therapeutic taping technique which alleviates pain and facilitates lymphatic drainage by microscopically lifting the skin. The patch is made of nylon and cotton to match the range of natural skin in motion. The adhesive is applied to clean stretched skin. the treatment will last for 7 days. The brand used in this study is Himmel, made in

South Korea.

Category

Treatment - Devices

2

Description

Intervention group: Pressure dressing. 4 fluffed sterile gauzes, supported by a surgical fix will be place on each side of the face for a week.

Category

Treatment - Devices

Recruitment centers

1

Recruitment center

Name of recruitment center

Imam Hossein hospital

Full name of responsible person

Mostafa Alam

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Shahid Beheshti University of Medical Sciences

Full name of responsible person

Afshin Zarghi

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Shahid Beheshti University of medical sciences, Bldg. NO.2, Arabi Ave, Velenjak, Tehran

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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

Shahid Beheshti 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

Shahid Beheshti University of Medical Sciences

Full name of responsible person

Mostafa Alam

Position

Assistant Professor

Latest degree

Specialist

Other areas of specialty/work

Dentistry

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Web page address

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

Undecided - It is not yet known if there will be a plan to make this available

Statistical Analysis Plan

Undecided - It is not yet known if there will be a plan to make this available

Informed Consent Form

Undecided - It is not yet known if there will be a plan to make this available

Clinical Study Report

Undecided - It is not yet known if there will be a plan to make this available

Analytic Code

Undecided - It is not yet known if there will be a plan to make this available

Data Dictionary

Undecided - It is not yet known if there will be a plan to make this available