Clinical Trial Protocol
Iranian Registry of Clinical Trials

18 Sep 2026

Evaluation of Mandibular Wiring to Zygomatic Arch for Recurrent Tempro-Mandibular Joint Dislocation Treatment

Protocol summary

Study aim

Determining the effectiveness of Mandibular Wiring method to zygomatic arch for the treatment of Recurrent Tempro-Mandibular Joint Dislocation

Design

Clinical trial study without control group, phase 2, 5 patients.

Settings and conduct

Patients with Recurrent Tempro-Mandibular Joint Dislocation undergo minor surgery. During this surgery, by using a 0.6 mm stainless steel wire, their mandible movements will be limited. First, a hole is made in the anterior-posterior dimension, one centimeter posterior to the anterior border of the ascending mandible, and in the Superior-Inferior dimension, one centimeter above the Occlusal Plan, a hole is made. Then we bring the Owle from the medial side of the zygomatic arch to the medial area of the ramus near the hole, then we tie a 0.6 mm stainless steel wire with the tip of the Owle, we pass the wire through the inside of the arch of the zygoma and from The outer area of the zygomatic arch is brought to the outer part of the Ramos mandible near the hole. Then, by moving the wire back and forth a few times, we make sure that the wire is free. Then we examine the amount of jaw opening, this amount of opening is examined clinically, this amount should be 5 mm less than the dislocation amount. The wire is cut to the specified size and we pass the outer end of the wire through the hole and tie the two ends of the wire on the inside of the ramus.

Participants/Inclusion and exclusion criteria

Inclusion criteria: Patients with Recurrent Tempro-Mandibular Joint Dislocation who have not yet received other common treatments. Exclusion criteria: People who are prohibited from having surgery.

Intervention groups

This study has an intervention group in which people with Recurrent Tempro-Mandibular Joint Dislocation are treated to the zygomatic arch under Mandibular Wiring.

Main outcome variables

treatment of Recurrent Tempro-Mandibular Joint Dislocation.

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20170101031697N4**
Registration date: **2020-11-07, 1399/08/17**
Registration timing: **retrospective**

Last update: **2020-11-07, 1399/08/17**
Update count: **0**

Registration date

2020-11-07, 1399/08/17

Registrant information

Name
Afshin Parvizpanah
Name of organization / entity
Hormozgan University of Medical Sciences
Country
Iran (Islamic Republic of)
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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2020-09-15, 1399/06/25

Expected recruitment end date

2020-10-14, 1399/07/23

Actual recruitment start date

2020-09-15, 1399/06/25

Actual recruitment end date
2020-10-14, 1399/07/23
Trial completion date
2020-10-14, 1399/07/23

Scientific title
Evaluation of Mandibular Wiring to Zygomatic Arch for Recurrent Tempro-Mandibular Joint Dislocation Treatment

Public title
Evaluation of the method of connecting the mandible to the zygomatic arch by wire for the treatment of recurrent temporomandibular joint dislocation
Purpose
Treatment
Inclusion/Exclusion criteria
Inclusion criteria:
Patient who has the recurrent Tempro-Mandibular joint dislocation problem. Patient who has not received any other treatment to resolve the recurrent Tempro-Mandibular joint dislocation problem.
Exclusion criteria:
Patients who have been barred from any surgery.
Age
No age limit
Gender
Both

Phase
2
Groups that have been masked
No information
Sample size
Target sample size: **5**
Actual sample size reached: **5**
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 Bandar Abbas University of Medical Sciences
Street address
Ethics Committee of Bandar Abbas University of Medical Sciences,Research Deputy Building, Shahid Mohammadi Hospital, Jomhoori Islami Blvd.
City
Bandar Abbas
Province
Hormozgan
Postal code
7916613885
Approval date
2020-09-15, 1399/06/25
Ethics committee reference number
IR.HUMS.REC.1399.325

Health conditions studied

1

Description of health condition studied
Recurrent Tempro-Mandibular Joint Dislocation
ICD-10 code
S03.0
ICD-10 code description
Dislocation of jaw

Primary outcomes

1

Description
The amount of mouth opening before surgery
Timepoint
Before surgery
Method of measurement
Measurements will be done using a ruler per millimeter.

2

Description
The amount of mouth opening after surgery
Timepoint
After surgery
Method of measurement
Measurements will be done using a ruler per millimeter.

3

Description
Success of treatment.
Timepoint
After surgery
Method of measurement
Not to dislocate the temporomandibular joint again will be a sign of successful treatment.

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: The intervention is surgical. During this surgery, by using a 0.6 mm stainless steel wire, their jaw movements will be limited. First, a hole is made in the anterior-posterior dimension, one centimeter posterior to the anterior border of the ascending mandible, and in the Superior-Inferior dimension, one centimeter above the Occlusal Plan, a hole is made. Then we bring the Owle from the medial side of the zygomatic arch to the medial area of the ramus near the hole, then we tie a 0.6 mm stainless steel wire with the tip of the Owle, we pass the wire through the inside of the arch of the zygoma and from The outer area of the zygomatic arch is cut to the outer part of the Ramos mandible near the hole. Then, by moving the wire back and forth a few times, we make sure that the wire is free and no tissue is stuck. Then we examine the amount of jaw opening, this amount of opening is examined clinically, this amount should be 5 mm less than the dislocation. At the end, the wire is brought to the specified size and we pass the outer end of the wire through the hole and tie the two ends of the wire on the inside of the ramus.

Category

Treatment - Surgery

Recruitment centers

1

Recruitment center

Name of recruitment center

Dental Clinic of Bandar Abbas Faculty of Dentistry

Full name of responsible person

Hesamoddin Etemadi

Street address

Dental Clinic of Bandar Abbas School of Dentistry, Shahid Naser St, Imam Khomeini Blvd

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7914964153

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mail@hums.ac.ir

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Bandare-abbas University of Medical Sciences

Full name of responsible person

Teamour Aghamolai

Street address

Shahid Mohammadi Hospital, Jomhouri Islami St, Imam Khomeini Blvd

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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

Bandare-abbas 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

Bandare-abbas University of Medical Sciences

Full name of responsible person

Afshin Parvizpanah

Position

Dental Student

Latest degree

A Level or less

Other areas of specialty/work

Dentistry

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Person responsible for scientific inquiries

Contact

Name of organization / entity

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Full name of responsible person

Hesamoddin Etemadi

Position

Assistant Professor

Latest degree

Specialist

Other areas of specialty/work

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Person responsible for updating data

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Name of organization / entity

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Dental student

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A Level or less

Other areas of specialty/work

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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

Not applicable

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

The information from this study can be shared without identifying participants.

When the data will become available and for how long

From October 2021

To whom data/document is available

Researchers and referees

Under which criteria data/document could be used

Obtaining a written permit and mentioning the name in the sources and references

From where data/document is obtainable

Afshin Parvizpanah afshin.parvizpanah@hums.ac.ir

What processes are involved for a request to access data/document

The request must first be emailed and answered after review and approval.

Comments