

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

05 Jul 2026

### Evaluation of clinical success, root resorption and periodontal changes in molars after intrusion using miniscrew.

#### Protocol summary

##### Summary

The goal of this study was to evaluate the possibility and effectiveness of a new technique for posterior tooth intrusion with mini screws. In this study 10 women with overextruded molar teeth were selected. Exclusion criteria included active periodontal diseases, previous orthodontic treatment and previous root resorption. For each tooth intrusion, two bracket type mini screws -one in mesiobuccal and another in mesiolingual of the aimed tooth were used and totally 100 gr force (50 gram each side) acted on tooth till clinically acceptable intrusion was achieved. After completing treatment intrusion amount, root resorption was evaluated for each tooth by millimeter scale. Evaluation technique was based on comparing periapical radiographs before and after treatment and 6 months after retention. Periodontal status of selected teeth before and after treatment and 6 months after retention was evaluated and compared.

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT138711061585N1**

Registration date: **2009-02-15, 1387/11/27**

Registration timing: **retrospective**

Last update:

Update count: **0**

##### Registration date

2009-02-15, 1387/11/27

##### Registrant information

###### Name

Shahin Bayani

###### Name of organization / entity

Mashhad Dental University

###### Country

Iran (Islamic Republic of)

###### Phone

+98 51 1501 2281

###### Email address

bayanish841@mums.ac.ir

###### Recruitment status

###### Recruitment complete

###### Funding source

Pro-Vice-chancellor for research, Mashhad University of Medical Sciences and Health Services

###### Expected recruitment start date

2007-01-01, 1385/10/11

###### Expected recruitment end date

2008-01-01, 1386/10/11

###### Actual recruitment start date

empty

###### Actual recruitment end date

empty

###### Trial completion date

empty

###### Scientific title

Evaluation of clinical success, root resorption and periodontal changes in molars after intrusion using miniscrew.

###### Public title

Evaluation of clinical success, root resorption and periodontal changes in molars after intrusion using miniscrew.

###### Purpose

Treatment

###### Inclusion/Exclusion criteria

Inclusion criteria: Presence of overextruded upper first molars that come into the edontolous space of opposite arch. Exclusion criteria: active periodontal disease, previous orthodontic treatment, previous root resorption.

###### Age

From **25 years** old to **57 years** old

###### Gender

Female

## Phase

3

## Groups that have been masked

No information

## Sample size

Target sample size: 10

## 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 Mashad University of Medical Science

##### Street address

Ghoreishi building, Daneshgah street,

##### City

Mashhad

##### Postal code

#### Approval date

2006-07-01, 1385/04/10

#### Ethics committee reference number

79

## Health conditions studied

### 1

#### Description of health condition studied

Overerupted maxillary first molar

#### ICD-10 code

k00.6

#### ICD-10 code description

Disturbances in tooth eruption

## Primary outcomes

### 1

#### Description

Upper molar intrusion

#### Timepoint

Before, after treatment and 6 months after retention

#### Method of measurement

Radiographic assesment

## Secondary outcomes

### 1

#### Description

Changes in periodontal status

#### Timepoint

t0( begining of the treatment), t1( end of active treatment), t2( 6 months after retention)

#### Method of measurement

Radiographic measurement, clinical observation

### 2

#### Description

Root resorption

#### Timepoint

t0( begining of the treatment), t1( end of active treatment), t2( 6 months after retention)

#### Method of measurement

Radiographic measurement

## Intervention groups

### 1

#### Description

For each tooth intrusion, two bracket type mini screws - one in mesiobuccaland another in mesiolingual of the aimed tooth were used and totally 100 gr force (50 gr each side) acted on tooth till clinically acceptable intrusion was achieved.

#### Category

Treatment - Other

## Recruitment centers

### 1

#### Recruitment center

##### Name of recruitment center

Mashhad Dental School, Dental Research Center

##### Full name of responsible person

Shahin Bayani

##### Street address

Park square,Opposite Mellat Park,Mashhad

##### City

Mashhad

## Sponsors / Funding sources

### 1

#### Sponsor

##### Name of organization / entity

Vice Chancellor for research- Mashhad University of Medical Sciences

##### Full name of responsible person

Research Management Department

**Street address**

Ghoreishi Building, Daneshgah Street

**City**

Mashhad

**Grant name**

گرنٲ اساتيد

**Grant code / Reference number**

86100

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

Yes

**Title of funding source**

Vice Chancellor for research- Mashhad University of Medical Sciences

**Proportion provided by this source**

100

**Public or private sector**

empty

**Domestic or foreign origin**

empty

**Category of foreign source of funding**

empty

**Country of origin****Type of organization providing the funding**

empty

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

Mashhad Dental School

**Full name of responsible person**

Shahin Bayani

**Position**

Orthodontic resident

**Other areas of specialty/work****Street address**

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Orthodontic resident

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**Web page address****Sharing plan****Deidentified Individual Participant Data Set (IPD)**

empty

**Study Protocol**

empty

**Statistical Analysis Plan**

empty

**Informed Consent Form**

empty

**Clinical Study Report**

empty

**Analytic Code**

empty

**Data Dictionary**

empty