

Clinical Trial Protocol

Iranian Registry of Clinical Trials

16 Sep 2026

A comparison between two methods of canine retraction

Protocol summary

Summary

Introduction: Although space closure is a big challenge in orthodontic treatment, limited studies –especially clinical trial- are available in this area. Despite some researches on orthodontic space closure, yet no consensus has been reached. Due to recent interest in using intermittent instead of wildly appreciated continuous forces, we decided to guide a research on comparison between 2 methods of space closure. Objectives: To investigate the rates of space closure, the amount of tipping and anchorage loss achieved by elastomeric module on steel ligature and NiTi coil spring during canine retraction. Settings: Six orthodontic patients wearing the Roth edgewise appliance undergoing canine retraction using sliding mechanics on (0.019□0.025) SS archwires will be selected. NiTi closed coil spring and active tieback will be placed in opposite quadrants. Study models of all patients taken before space closure, also 2 and 4 months from the initiation of canine retraction is needed for measurement of the rate of space, tipping and anchorage loss.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201111308257N1**
Registration date: **2012-01-19, 1390/10/29**
Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2012-01-19, 1390/10/29

Registrant information

Name

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Name of organization / entity

Shiraz University of Medical Sciences

Country

Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Shahid Sadoughi University of Medical Sciences

Expected recruitment start date

2010-12-01, 1389/09/10

Expected recruitment end date

2011-04-01, 1390/01/12

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

A comparison between two methods of canine retraction

Public title

A comparison between two methods of canine retraction

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: being in good health condition; do not have previous surgery and not taking medication; not having clenching or grinding, a first premolar extraction in each quadrant (no other extractions), upper and lower pre adjusted edgewise appliance "Roth prescription (Dentaram)" and signing informed consent. Exclusion criteria: using any drug during the study; if a bracket was deboned and if the patient misses any visit.

Age

From **13 years** old to **17 years** old

Gender

Both

Phase

0

Groups that have been masked

No information

Sample size

Target sample size: 24

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Double blinded

Blinding description

Placebo

Not used

Assignment

Crossover

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

shahid sadoughi university of medical sciences

Street address

bahonar sq., shahid sadoughi university of medical sciences

City

yazd

Postal code

Approval date

2010-08-20, 1389/05/29

Ethics committee reference number

467

Health conditions studied

1

Description of health condition studied

Orthodontic problem

ICD-10 code

Z46.4

ICD-10 code description

Fitting and adjustment of orthodontic device

Primary outcomes

1

Description

Space closure

Timepoint

Monthly

Method of measurement

Milimeters

Secondary outcomes

1

Description

Anchorage loss

Timepoint

Monthly

Method of measurement

Milimeters

Intervention groups

1

Description

Using the active tieback for canine retraction

Category

Treatment - Devices

2

Description

Using NiTi coil spring for canine retraction in contralateral arch

Category

Treatment - Devices

Recruitment centers

1

Recruitment center

Name of recruitment center

Dental school

Full name of responsible person

Street address

City

Yazd

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Shahid Sadoughi University of Medical Sciences

Full name of responsible person

research faculty

Street address

Bahonar sq., Shahid Sadoughi University of Medical Sciences

City

Yazd

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Shahid Sadoughi 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

Dental school

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Assistant professor

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Other areas of specialty/work**Street 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