

Clinical Trial Protocol

Iranian Registry of Clinical Trials

18 Jun 2026

Dimensional changes of alveolar socket following the tooth extraction with or without Using absorbable and hemostatic collagen

Protocol summary

Study aim

Dimensional changes of alveolar socket following the tooth extraction with or without Using absorbable and hemostatic collagen

Design

Not-blinded non-randomized clinical trial with control group

Settings and conduct

Atraumatic tooth extraction was performed in Ahvaz dentistry faculty for all patients under local anesthesia. The post-extraction sockets were debrided. 42 patients were assigned to one of two groups for post-extraction socket preservation: Group A consisted of 21 patients in whom collagenic cones were placed into the extraction sockets. Group B consisted of 21 patients in whom collagenic cones were not placed into the extraction sockets. The patients were examined by the surgeon who performed the surgical procedure at day 7 and then at 3 months after surgery. The reduction of alveolar bone, measured at the cervical part of the socket, was determined before socket preservation and 3 months later using a periodontal probe and caliper in the following ways: 1. Distance between a line which connects the cemento-enamel junctions of the mesial and distal tooth, and crestal bone at the central point of the buccal and palatal sites (vertical dimension) 2. Distance between the central point of the buccal and palatal walls (horizontal dimension) at the level of crestal bone and 3 and 5 millimeter below CEJ

Participants/Inclusion and exclusion criteria

patients with indications for tooth extraction such as fracture of the tooth, non-vital tooth without the possibility of endodontic treatment and restoration, chronic periodontitis, in the maxilla or mandible premolar tooth area with good oral hygiene

Intervention groups

Intervention group: after tooth extraction absorbable collagen sponge is used for socket preservation control group: after tooth extraction absorbable collagen sponge

is not used for socket preservation

Main outcome variables

width and height of alveolar ridge

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20190728044361N1**

Registration date: **2020-02-25, 1398/12/06**

Registration timing: **retrospective**

Last update: **2020-02-25, 1398/12/06**

Update count: **0**

Registration date

2020-02-25, 1398/12/06

Registrant information

Name

Mohammadreza Badri

Name of organization / entity

Country

Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2019-10-23, 1398/08/01

Expected recruitment end date

2020-02-20, 1398/12/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date
empty

Scientific title
Dimensional changes of alveolar socket following the tooth extraction with or without Using absorbable and hemostatic collagen

Public title
Dimensional changes of alveolar socket following the tooth extraction with or without Using absorbable and hemostatic collagen

Purpose
Treatment

Inclusion/Exclusion criteria
Inclusion criteria:
patients with indications for tooth extraction such as fracture of the tooth, non-vital tooth without the possibility of endodontic treatment and restoration, chronic periodontitis, with good oral hygiene patients with indications for tooth extraction such as non-vital tooth without the possibility of endodontic treatment and restoration patients with indications for tooth extraction such as chronic periodontitis with good oral hygiene in maxillary or mandibular premolar area
Exclusion criteria:
smokers patients history of uncontrolled systemic disease

Age
From **18 years** old

Gender
Both

Phase
3

Groups that have been masked
No information

Sample size
Target sample size: **42**

Randomization (investigator's opinion)
Not randomized

Randomization description

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 Ahvaz Jundishapur University of

Medical Science
Street address
Golestan street
City
ahvaz
Province
Khouzestan
Postal code
6135715775
Approval date
2019-07-20, 1398/04/29
Ethics committee reference number
IR.AJUMS.REC.1398.311

Health conditions studied

1

Description of health condition studied

alveolar bone healing after extraction

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Width of alveolar ridge

Timepoint

before extraction, after 1 week, after 3 months

Method of measurement

using periodontal probes and ridge mapping caliper

2

Description

height of alveolar ridge

Timepoint

before extraction, after 1 week, after 3 months

Method of measurement

using periodontal probes and ridge mapping caliper

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: after tooth extraction absorbable collagen sponge is used for socket preservation

Category

Treatment - Drugs

2

Description

Control group: without using absorbable collagen sponge after tooth extraction

Category

Treatment - Surgery

Recruitment centers1**Recruitment center****Name of recruitment center**Ahvaz Jundi Shapur University Of Medical Sciences
School Of Dental Medicine**Full name of responsible person**

Dr Navid Dorestan

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Sponsors / Funding sources1**Sponsor****Name of organization / entity**

Ahvaz University of Medical Sciences

Full name of responsible person

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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

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

Dr Navid Dorestan

Position

Asistant Professor Of Periodontology

Latest degree

Specialist

Other areas of specialty/work

periodontist

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

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professor assistant

Latest degree

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Position

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Latest degree

Specialist

Other areas of specialty/work

Dentistry

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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