Clinical Trial Protocol
Iranian Registry of Clinical Trials

08 Nov 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 cementoenamel 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 aria 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

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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 asnon-vital tooth without the possibility of endodontic treatmentand restoration patients with indications for tooth extraction such aschronic periodontitis with good oral hygiene in maxillary or mandibular premolar aria

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 mounth

Method of measurement

using periodontal probes and ridge mapping caliper

2

Description

height of alveolar ridge

Timepoint

before extraction,after 1 week ,after 3 mounth

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 centers

1

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 sources

1

Sponsor
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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
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Asistant Professor Of Periodontology
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Email

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