Clinical Trial Protocol
Iranian Registry of Clinical Trials

07 Nov 2026

Comparative evaluation of the stability of implants placed in the maxillary canine and premolar by the immediate in-socket method versus the conventional method

Protocol summary

Study aim
comparative evaluation of the stability of implants placed in the maxillary canine and premolar by the immediate in-socket method versus the conventional method

Design
The sampling method in this study will be non-random and purposeful.

Settings and conduct
A total of 32 patients referred to Zahedan Dental School who require tooth extraction in the canine and premolar areas of the maxilla for medical reasons and are candidates for dental implant treatment will be included in the study after receiving informed consent and considering the inclusion criteria (health of the buccal and lingual walls of the dental socket after tooth extraction) and exclusion criteria.

Participants/Inclusion and exclusion criteria
The study population of the present study will consist of patients referring to Zahedan Dental School who require tooth extraction in the canine and premolar areas of the maxilla for therapeutic reasons and are candidates for dental implant treatment (immediate and routine) Inclusion criteria: Age ≥ 18 years General health suitable for oral surgery Need for extraction of a maxillary canine or premolar with an unsalvageable prognosis (e.g. root fracture, severe caries, or failed endodontic treatment) Health of the buccal and lingual walls of the tooth socket after extraction

Intervention groups
1. Immediate Implant Group: Implants will be placed into the socket immediately after tooth extraction, in the same session. 2. Conventional (Delayed) Implant Group: Implants will be placed after a healing period of 8 to 12 weeks after tooth extraction

Main outcome variables
Stability of implants placed in the canine area immediately in the socket with the conventional method

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20260422069129N1**
Registration date: **2026-06-19, 1405/03/29**
Registration timing: **prospective**

Last update: **2026-06-19, 1405/03/29**
Update count: **0**

Registration date
2026-06-19, 1405/03/29

Registrant information

Name
Shahriar Khanlari

Name of organization / entity

Country
Iran (Islamic Republic of)

Phone
+98 918 309 6800

Email address
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Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2026-06-23, 1405/04/02

Expected recruitment end date
2026-07-06, 1405/04/15

Actual recruitment start date
empty

Actual recruitment end date
empty

Trial completion date
empty

Scientific title
Comparative evaluation of the stability of implants placed in the maxillary canine and premolar by the immediate in-socket method versus the conventional method

Public title
Comparative evaluation of the stability of implants placed in the maxillary canine and premolar by the immediate in-socket method versus the conventional method

Purpose
Treatment

Inclusion/Exclusion criteria

Inclusion criteria:
Age ≥ 18 Acceptable overall health status for oral surgery Need for the extraction of a maxillary canine or premolar with poor prognosis (root fracture, severe caries or endodontics treatment Intact buccal and lingual walls of socket after extraction No consumption of drugs affecting the health of bone or soft tissue health No history of radiotherapy or chemotherapy in head and neck area No smoking or substance abuse No infection or pus discharge in the area

Exclusion criteria:
Unwillingness to participate in the study Pregnancy and systemic problems affecting tissue repair

Age
From **18 years** old

Gender
Both

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **32**

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 Zahedan University of Medical Sciences

Street address
Zahedan University of Medical Sciences Khalij -e- Fars Blvd

City
Zahedan

Province
Sistan-va-Balouchestan

Postal code
9817699693

Approval date
2026-03-17, 1404/12/26

Ethics committee reference number
IR.ZAUMS.REC.1404.426

Health conditions studied

1

Description of health condition studied
Dental Implant

ICD-10 code
Z96.5

ICD-10 code description
Presence of tooth-root and mandibular implants

Primary outcomes

1

Description
stability of implants placed

Timepoint
implantation day/one month after/3 month after

Method of measurement
ISTD (Implant Stability Test Device)

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: Immediate implant group: immediate implantation after extraction.

Category
Treatment - Surgery

2

Description
Intervention group: Regular implant placement: implantation after a recovery period of 8-12 weeks after tooth extraction.

Category
Treatment - Surgery

Recruitment centers

1

Recruitment center

Name of recruitment center
Zahedan dentisty school

Full name of responsible person
Mehrdad Shahraki

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East Azadegan Blvd

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Zahedan University of Medical Sciences

Full name of responsible person
Alireza Ansari moghadam

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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
Zahedan 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
Zahedan University of Medical Sciences

Full name of responsible person
Mehrdad Shahraki

Position
Assistant Professor

Latest degree
Specialist

Other areas of specialty/work
Dentistry

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Person responsible for updating data

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Sharing plan

Deidentified Individual Participant Data Set (IPD)
No - There is not a plan to make this available
Justification/reason for indecision/not sharing IPD
Not aware of the results
Study Protocol
No - There is not a plan to make this available
Statistical Analysis Plan
No - There is not a plan to make this available
Informed Consent Form
No - There is not a plan to make this available
Clinical Study Report
No - There is not a plan to make this available
Analytic Code
Not applicable
Data Dictionary
Not applicable