Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

Patients blood calcium level changes in thyroidectomy by Ligasure Small Jaw Instrument in comparison to Clamp and tie method

Protocol summary

Summary

In current study, we aim to discuss effect of Ligasure Small Jaw Instrument on hypocalcemia prevalence decrease in thyroidectomy patients. One hundred and fifty patients with thyroidectomy indication, who will be admitted in surgery wards of Tabriz Taleghani and Emam Reza hospitals from March 2014 till March 2015, enroll our study. All patients take part in case or control group by their own willing, as they choose surgery method on their own, and some will receive Ligasure Small Jaw and others Clamp and tie method. Sampling is non-randomized and census and patients candidate for thyroidectomy such as thyroidectomy cancers will enroll our study. In all individuals, one day before intervention, total and ionized calcium levels will be check. This tests will be repeated in first visit after surgery approximately in 2nd week after discharge, and in case of hypocalcemia presence, in 6th week after operation, tests will be repeated again. Also, during admission in hospital, patients will be examined for hypocalcemia clinical signs and symptoms. Finally, we will analyses results for investigating Ligasure Small Jaw role on post-operative hypocalcemia prevalence decrease.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2014010516077N1**
Registration date: **2014-05-23, 1393/03/02**
Registration timing: **registered_while_recruiting**

Last update:
Update count: **0**

Registration date

2014-05-23, 1393/03/02

Registrant information

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Name of organization / entity

Tabriz University of Medical Sciences

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Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Student Research Committee, Tabriz University of Medical Sciences

Expected recruitment start date

2014-02-20, 1392/12/01

Expected recruitment end date

2015-03-20, 1393/12/29

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Patients blood calcium level changes in thyroidectomy by Ligasure Small Jaw Instrument in comparison to Clamp and tie method

Public title

Clinical trial on blood calcium level changes in patients undergo thyroidectomy by Ligasure Small Jaw Instrument comparing to Clamp and tie method

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion Criteria: Multi Noduler Goiter; Thyroid cancers; Retrosternal goiter Exclusion Criteria: Bilateral recurrent

laryngeal nerve paresis; Secondary thyroid surgery; History of previous head and neck surgery; Parathyroid comorbidity

Age
No age limit

Gender
Both

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **150**

Randomization (investigator's opinion)
Not randomized

Randomization description

Blinding (investigator's opinion)
Not blinded

Blinding description

Placebo
Not used

Assignment
Parallel

Other design features
Because patients choose the surgery type by their own willing and economical situation, so both case and control groups are non randomized.

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Ethics Committee of Research and Technology Department, Tabriz University of Medical Sciences

Street address
Research and technology department, Daneshgah Street, Tabriz

City
Tabriz

Postal code

Approval date
2014-01-20, 1392/10/30

Ethics committee reference number
92170

Health conditions studied

1

Description of health condition studied
Thyroid diseases

ICD-10 code
E07

ICD-10 code description
Other disorders of thyroid

Primary outcomes

1

Description
Investigating postoperative hypocalcemia prevalence in patients undergo surgery with 2 methods

Timepoint
1 day before surgery, 1 day after surgery, 2 weeks after surgery, 6 weeks after surgery

Method of measurement
Calculating total and ionized blood calcium amount

Secondary outcomes

1

Description
Comparing hyporcalcemia severity in patients in both surgery methods

Timepoint
1 day before, 1 day after, 2 weeks after, 6 weeks after

Method of measurement
Calculating ionized and total blood calcium amounts

Intervention groups

1

Description
Thyroidectomy by Ligasure small jaw instrument: Ligasure Small Jaw Instrument helps to coagulate and cut the thyroid nutrient vessels without any knot and suture, and facilitates thyroid resection procedure.

Category
Treatment - Surgery

2

Description
Thyroidectomy by Clamp and Tie method: This method is also known as Conventional thyroidectomy, which perform by several knots on nutrient vessels of thyroid, for completing thyroid resection.

Category
Treatment - Surgery

Recruitment centers

1

Recruitment center

Name of recruitment center
Tabriz Emam Reza Hospital and Tabriz Shahid Taleghani Hospital

Full name of responsible person

Street address
Emam Reza hospital, Daneshgah Street, Tabriz, Iran

City
Tabriz

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Student Research Committee, Tabriz University of Medical Sciences
Full name of responsible person
Hossein Mazouchian
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Student Research Committee of Tabriz University of Medical Sciences, Pashmine Complex, Daneshgah Street, Tabriz, Iran
City
Tabriz
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Student Research Committee, Tabriz 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

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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