

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 Jun 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

##### Name

Ali Ramouz

##### Name of organization / entity

Tabriz University of Medical Sciences

##### Country

Iran (Islamic Republic of)

##### Phone

+98 41 3441 3895

##### Email address

ali.ramouz@gmail.com

##### 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 Nodular 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 hypocalcemia 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

**Street address**

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

**Contact****Name of organization / entity**

Tabriz University of Medical Sciences

**Full name of responsible person**

Ali Ramouz

**Position**

Medical student

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## Person responsible for scientific inquiries

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## Person responsible for updating data

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**Position**

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**Other areas of specialty/work****Street address**

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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*