

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

01 Jun 2026

### Effectiveness of radiofrequency ablation therapy with ultrasound guidance in thyroid nodules

#### Protocol summary

##### Study aim

Determining the effectiveness of ultrasound-guided radiofrequency ablation therapy in the treatment of thyroid nodules

##### Design

The current study is a non-randomized clinical trial. It should be noted that there is no randomization, blinding, or control group in this study.

##### Settings and conduct

In this study, patients in the intervention group who visited the office of Dr. Talaei Zadeh and Dr. Motamedfar during the research registration period were entered in the study based on inclusion criteria and exclusion criteria. Patients are then referred to the office of Dr. Motamed Far, an interventional radiologist, for an ultrasound-guided RFA procedure, and this procedure is performed on them; then, 3 months after the first RFA session for their fallopian tubes, they undergo a thyroid ultrasound.

##### Participants/Inclusion and exclusion criteria

Patients must be over 18 years of age. The diagnosis of autonomous nodule or benign thyroid nodule must be definitive and documented. Patients with residual thyroid after thyroid cancer surgery. Patients with metastatic lymph nodes after LND surgery for thyroid cancer. Patients with benign thyroid nodules less than 20 mm without clinical symptoms. Patients with a benign thyroid nodule greater than 20 mm with clinical symptoms. Patients with autonomous thyroid nodules less than 20 ml.

##### Intervention groups

In current study, the intervention will be performed on patients with benign nodules, autonomous thyroid nodules, thyroid remnants remaining after thyroid cancer surgery, and metastatic lymph nodes remaining after thyroid cancer lymph node dissection surgery based on inclusion and exclusion criteria.

##### Main outcome variables

The thyroid nodule volume reduction rate (VRR) is the

result of dividing the difference between the pre-procedure and post-procedure volume of the thyroid nodule by the pre-procedure volume multiplied by 100.

#### General information

##### Reason for update

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT20251024067738N1**

Registration date: **2025-11-04, 1404/08/13**

Registration timing: **registered\_while\_recruiting**

Last update: **2025-11-04, 1404/08/13**

Update count: **0**

##### Registration date

2025-11-04, 1404/08/13

##### Registrant information

##### Name

Nima Farhadi

##### Name of organization / entity

##### Country

Iran (Islamic Republic of)

##### Phone

+98 937 057 7224

##### Email address

farhadi.ni@ajums.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2025-11-03, 1404/08/12

##### Expected recruitment end date

2026-02-01, 1404/11/12

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

**Trial completion date**  
empty

**Scientific title**  
Effectiveness of radiofrequency ablation therapy with ultrasound guidance in thyroid nodules

**Public title**  
Radiofrequency ablation in thyroid nodules

**Purpose**  
Treatment

**Inclusion/Exclusion criteria**  
**Inclusion criteria:**  
Patients with a definitive and documented diagnosis of autonomous nodule or benign thyroid nodule. Patients must be over 18 years of age. Patients with residual thyroid after thyroid cancer surgery. Patients with metastatic lymph nodes after lymph node dissection surgery for thyroid cancer. Patients with benign thyroid nodules less than 20 mm without clinical symptoms. Patients with a benign thyroid nodule greater than 20 mm with clinical symptoms. Patients with autonomous thyroid nodules less than 20 ml.  
**Exclusion criteria:**  
Patients who do not consent to participate in the research. Patients with known cases of dementia or psychiatric cognitive disorders. Patients under 18 years of age. Patients in whom the diagnosis of autonomous nodule or benign thyroid nodule is not definitive and documented. Patients with autonomous nodules with a volume greater than 20 ml.

**Age**  
From **18 years** old

**Gender**  
Both

**Phase**  
2-3

**Groups that have been masked**  
*No information*

**Sample size**  
Target sample size: **48**

**Randomization (investigator's opinion)**  
N/A

**Randomization description**

**Blinding (investigator's opinion)**  
Not blinded

**Blinding description**

**Placebo**  
Not used

**Assignment**  
Other

**Other design features**

## Secondary Ids

empty

## Ethics committees

1

### Ethics committee

#### Name of ethics committee

Research Ethics committee, Ahvaz Jundishapur University of Medical Sciences

#### Street address

Ahvaz, Golestan Boulevard, Ahvaz Jundishapur University of Medical Sciences, secretary for Research, Research Ethics committee

#### City

Ahvaz

#### Province

Khuzestan

#### Postal code

6135715794

#### Approval date

2025-10-22, 1404/07/30

#### Ethics committee reference number

IR.AJUMS.REC.1404.370

## Health conditions studied

1

### Description of health condition studied

Benign thyroid nodules - Autonomous thyroid nodule - Residual thyroid after thyroid cancer surgery - Residual metastatic lymph nodes after lymph node dissection for thyroid cancer.

#### ICD-10 code

E04.1

#### ICD-10 code description

Nontoxic single thyroid nodule

## Primary outcomes

1

### Description

Thyroid nodule volume reduction rate: It is created by dividing the difference between the pre- and post-thyroid nodule volume by the pre-thyroid nodule volume multiplied by 100.

#### Timepoint

The volume of the thyroid nodule or lymph node is examined first and 3 and 6 months after the procedure.

#### Method of measurement

The size of the thyroid nodule or lymph node is determined by ultrasonography of the thyroid or neck.

## Secondary outcomes

1

### Description

Minor and major complications resulting from ultrasound-guided radio frequency ablation procedure

#### Timepoint

Beginning of study, 3 and 6 months after the procedure

#### Method of measurement

History, physical examination, thyroid and neck

ultrasound, and thyroid function test

## Intervention groups

1

### Description

Intervention group: Patients with benign nodules, autonomous thyroid nodules, thyroid remnants remaining after thyroid cancer surgery, and metastatic lymph nodes remaining after thyroid cancer lymph node dissection surgery

### Category

Treatment - Other

## Recruitment centers

1

### Recruitment center

#### Name of recruitment center

Imam Khomeini Hospital, Ahvaz

#### Full name of responsible person

Abdulhassan Talaizadeh

#### Street address

Ahvaz, Shahid Azadegan Street, Imam Khomeini Hospital, Ahvaz

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Khouzestan

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## Sponsors / Funding sources

1

### Sponsor

#### Name of organization / entity

Ahvaz University of Medical Sciences

#### Full name of responsible person

Abdulhasan Talaeizadeh

#### Street address

Jundishapour University of Medical Sciences, Golestan Blvd, Ahvaz

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#### Phone

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[info@ajums.ac.ir](mailto:info@ajums.ac.ir)

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<https://ajums.ac.ir>

#### 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

Abdulhasan Talaeizadeh

#### Position

Professor of Cancer Surgery

#### Latest degree

Subspecialist

#### Other areas of specialty/work

General Surgery

#### Street address

Ahvaz, Shahid Azadegan Street, Imam Khomeini Hospital, General Surgery Department

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[Ahtalaiezadeh@yahoo.com](mailto:Ahtalaiezadeh@yahoo.com)

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## Person responsible for scientific inquiries

### Contact

#### Name of organization / entity

Ahvaz University of Medical Sciences

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#### Position

Professor of cancer surgery

#### Latest degree

Subspecialist

**Other areas of specialty/work**

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## Person responsible for updating data

**Contact**

**Name of organization / entity**

Ahvaz University of Medical Sciences

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**Position**

Professor of Cancer Surgery

**Latest degree**

Subspecialist

**Other areas of specialty/work**

General Surgery

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Ahvaz, Shahid Azadegan Street, Imam Khomeini Hospital, General Surgery Department

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**Web page address**

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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**

Due to the human nature of the current study and information about the demographics, course of treatment, and clinical findings of the patients participating in this study, based on the principles of medical confidentiality and the principles of ethics in research, there is no desire to publish the data file after the end of the clinical trial.

**Study Protocol**

No - There is not a plan to make this available

**Statistical Analysis Plan**

Yes - There is a plan to make this available

**Informed Consent Form**

Yes - There is a plan to make this available

**Clinical Study Report**

Yes - There is a plan to make this available

**Analytic Code**

No - There is not a plan to make this available

**Data Dictionary**

No - There is not a plan to make this available

**Title and more details about the data/document**

Due to the human nature of the current study and information about the demographics, course of treatment, and clinical findings of the patients participating in this study, based on the principles of medical confidentiality and the principles of ethics in research, there is no desire to publish the data file after the end of the clinical trial.

**When the data will become available and for how long**

Due to the human nature of the current study and information about the demographics, course of treatment, and clinical findings of the patients participating in this study, based on the principles of medical confidentiality and the principles of ethics in research, there is no desire to publish the data file after the end of the clinical trial.

**To whom data/document is available**

Only the reviewers of the journal to which the article resulting from this research project is submitted will be allowed to use the data from this clinical trial after going through the process of obtaining permission from the Research Ethics Committee and the Vice President for Research of Ahvaz University of Medical Sciences.

**Under which criteria data/document could be used**

The use of data from this research for purposes other than publishing the article with the coordination of the corresponding author is not permitted.

**From where data/document is obtainable**

To obtain data, you can contact the corresponding author for the current research.

**What processes are involved for a request to access data/document**

Sending an email to the corresponding author

**Comments**