

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Effects of pulmonary rehabilitation before and after open cardiac surgery on respiratory function

Protocol summary

Summary

It seems that inspiratory muscles training (IMT) can improve rehabilitation process of patients that are candidate for open heart surgery. We want to compare the outcomes of pulmonary function of patients with spirometry, arterial blood gases (ABG), 6 minutes walking test (6MWT) between 2 groups of them with and without IMT performed before surgery. We will perform inspiratory muscles training for 30 patients for 15 sessions before surgery and compare outcomes among them and control group (each 30 patients). Inclusion criteria are patients that undergo open heart surgery. Exclusion criteria are: 1.history of chronic obstructive pulmonary disease (COPD), 2.emergent surgery, 3.history of congestive heart failure (CHF).

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT138904294422N1**
Registration date: **2010-09-28, 1389/07/06**
Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2010-09-28, 1389/07/06

Registrant information

Name

Seyed Kazem Shakouri

Name of organization / entity

Tabriz University of Medical Sciences

Country

Iran (Islamic Republic of)

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Email address

shakourik@tbzmed.ac.ir

Recruitment status

Recruitment complete

Funding source

Tabriz university of medical sciences

Expected recruitment start date

2010-08-23, 1389/06/01

Expected recruitment end date

2011-08-29, 1390/06/07

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effects of pulmonary rehabilitation before and after open cardiac surgery on respiratory function

Public title

Effects of pulmonary rehabilitation before and after open cardiac surgery on respiratory function

Purpose

Supportive

Inclusion/Exclusion criteria

Inclusion criteria: patients that undergo open cardiac surgery. Exclusion criteria: 1.Chronic obstructive pulmonary disease (COPD), 2.emergency surgery, 3.Congestive heart failure (CHF).

Age

No age limit

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: 60

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Triple blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Vice chancellor for research of Tabriz university of medical sciences

Street address

Tabriz university of medical sciences

City

Tabriz

Postal code

Approval date

2010-07-05, 1389/04/14

Ethics committee reference number

2722/4/5

Health conditions studied

1

Description of health condition studied

Patients that undergo open heart surgery

ICD-10 code

I25.1

ICD-10 code description

Atherosclerotic heart disease

Primary outcomes

1

Description

effect on spirometry

Timepoint

15 days

Method of measurement

Spirometry instrument

Secondary outcomes

1

Description

Arterial Blood Gases (ABG)

Timepoint

according to ward routine evaluations

Method of measurement

ABG instrument

Intervention groups

1

Description

1.Cervical and shoulder mobilization, 2.Respiratory exercises, 3.IS training and cough training, 4.Stretching exercises of shoulder.

Category

Rehabilitation

2

Description

Control group: Incentive spirometry training and effective cough training.

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Tabriz Shaheed Madani hospital

Full name of responsible person

Street address

City

Tabriz

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Tabriz university of medical sciences

Full name of responsible person

Dr. Rasool Azarfarin

Street address

Vice chancellor for research of Tabriz university of medical sciences

City

Tabriz

Grant name

Grant code / Reference number

Is the source of funding the same sponsor organization/entity?

Yes

Title of funding source

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

Dr. Seyyed Kazem Shakoury

Position

Head of physical medicine ward

Other areas of specialty/work

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Person responsible for scientific inquiries

Contact

Name of organization / entity

Physical medicine and rehabilitation ward of Emam Reza hospital

Full name of responsible person

Dr. Seyyed Kazem Shakoury

Position

Physical medicine and rehabilitation professional, MD

Other areas of specialty/work

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Person responsible for updating data

Contact

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Full name of responsible person

Dr. Seyyed Kazem Shakouri

Position

Other areas of specialty/work

Street address

City

Postal code

Phone

Fax

Email

Web page address

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