

Clinical Trial Protocol

Iranian Registry of Clinical Trials

30 May 2026

Double blinded clinical trial on the effect of Q10 supplement on the level of CK-MB and Troponine enzymes in patients undergoing Coronary Artery Bypass Graft (CABG) surgery

Protocol summary

Summary

The aim of this Double-Blind randomized clinical trial study is the evaluation of the effect of Q10 supplementation on cardiac bio-markers (CKMB, CTnT) in patients undergoing CABG (Coronary Artery Bypass Graft). All patients with coronary heart disease referring for elective CABG are included. After signing an informed consent, all 80 patients will be divided into the two groups: 40 patients receiving Q10 (intervention group) and 40 patients receiving placebo (control group). Exclusion criteria include elevated CK-MB and cTnI and renal dysfunction (creatinine above 1.5 mg/dl). The intervention group will receive the Q10 supplement 150 mg a day (three 50- milligram capsule) for 7 days before surgery. The control group receive same capsule .The patients and medical personnel will not aware of the type of capsule give to the subject. Only the researcher will be aware of the code written on the boxes of the tablets. Inter and intra group blood levels of the cardiac bio-markers before and after the CABG will be compared.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2013122815957N1**

Registration date: **2014-09-22, 1393/06/31**

Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2014-09-22, 1393/06/31

Registrant information

Name

Jalal Moloudi

Name of organization / entity

Tehran University of Medical Sciences

Country

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Recruitment status

Recruitment complete

Funding source

Tehran University of Medical Sciences

Expected recruitment start date

2013-12-31, 1392/10/10

Expected recruitment end date

2014-12-22, 1393/10/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Double blinded clinical trial on the effect of Q10 supplement on the level of CK-MB and Troponine enzymes in patients undergoing Coronary Artery Bypass Graft (CABG) surgery

Public title

Effect of Q10 supplementation on cardiovascular bio markers in patients undergoing open heart surgery. "

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: 80 patients' eligible for CABG surgery; Tehran Heart Hospital Rajai Exclusion criteria: Patients with the following conditions (recent intake of

antioxidants either warfarin. (a month) ; Valve replacement; and those with BMI above 30; Kidney disease (cr above 1.5)

Age

From **40 years** old to **70 years** old

Gender

Both

Phase

2

Groups that have been masked

No information

Sample size

Target sample size: **80**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Double blinded

Blinding description

Placebo

Used

Assignment

Parallel

Other design features

Secondary Ids

1

Registry name

Secondary trial Id

Registration date

2017-11-21, 1396/08/30

2

Registry name

/

Secondary trial Id

/

Registration date

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Tehran University of Medical Sciences

Street address

Tehran

City

Tehran

Postal code

0098

Approval date

2014-06-28, 1393/04/07

Ethics committee reference number

93-01-161-25555-115651

Health conditions studied

1

Description of health condition studied

Chronic ischaemic heart disease

ICD-10 code

(I21-I22)

ICD-10 code description

Chronic ischaemic heart disease, unspecified

Primary outcomes

1

Description

level of Troponin

Timepoint

Pre-intervention and post-intervention and 24-hour, seven days after surgery.

Method of measurement

ELISA Kit

Secondary outcomes

1

Description

Levels of CK-MB

Timepoint

Pre-intervention and post-intervention and 24-hour, seven days after surgery.

Method of measurement

ELISA Kits

Intervention groups

1

Description

Intervention group: 150 mg Q10 supplementation will give to individuals in three divided doses (Q10 in capsule form -Iran Drug maker Exir Pharmaceuticals) for 7 days

Category

Other

2

Description

Control group: The control group will receive capsules with the same shape, from the same company with no therapeutic content (just the color) ,three times a day for 7 days

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Rajai Cardiovascular Hospital, Tehran

Full name of responsible person

Jalal Moludi

Street address

Rajai Cardiovascular Hospital, Tehran

City

Tehran

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice Chancellor for research of Tehran University of Medical Sciences

Full name of responsible person

Dr. Masoud Younesyan

Street address

No. 20, Hojat doost St, Keshavarz Blvd, School of Nutritional Sciences and Dietetics, Tehran University of Medical Sciences, Tehran, Iran

City

Tehran

Grant name

93-01-161-25555-116437

Grant code / Reference number

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

Yes

Title of funding source

Vice Chancellor for research of Tehran 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

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Full name of responsible person

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Position

MSc of Nutrition

Other areas of specialty/work

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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