Clinical Trial Protocol
Iranian Registry of Clinical Trials

17 Sep 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

Iran (Islamic Republic of)

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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

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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