

Clinical Trial Protocol

Iranian Registry of Clinical Trials

27 May 2026

Effect of Coenzyme Q10 on echocardiographic parameters in patients with heart failure due to dilated cardiomyopathy

Protocol summary

Study aim

Determination of the effect of coenzyme Q10 on echocardiographic parameters in children with dilated cardiomyopathy

Design

In this one-arm trial study, a complete history of the patient will be included and the variables of age, sex, weight, duration of disease, cause of failure and possible complications of coenzyme Q10 will be obtained from the patients. Patients then will be underwent cardiac echocardiography and the variables of Ejection fraction (volume of blood pumped by the heart per beat), fractional shortening (fraction of diastolic dimensional loss lost in systolic systole), and aortic valve regurgitation will be recorded. Patients will then be treated with coenzyme Q10 at a dose of 1 mg (Golden Life, Australia) per kg/day orally for 2 months. Patients dissolve the drug in water and take it orally. After 2 months, the patients will be re-examined and the desired variables will be re-examined and possible side effects of the drug were recorded. During the treatment, the patient will be contacted every 4 weeks for continuous use of the drug and the patient was also asked to deliver the package of drugs used.

Settings and conduct

This study is a one-arm clinical trial that was performed on children with heart failure due to dilated cardiomyopathy who were referred to Bandar Abbas Children's Hospital in 1398 and 1399. Sampling was done by availability and continued until the desired sample size was met.

Participants/Inclusion and exclusion criteria

Inclusion criteria were considered children with heart failure due to dilated cardiomyopathy. Exclusion criteria were considered to be metabolic diseases or other comorbidities that affect the cardiac variables studied in this study.

Intervention groups

Patients then treated with coenzyme Q10 1 mg (Golden

Life, Australia) per kilogram per day for 2 months orally.

Main outcome variables

Echocardiographic parameters including EF, FS, MR, TR

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20190612043878N1**

Registration date: **2021-04-14, 1400/01/25**

Registration timing: **retrospective**

Last update: **2021-04-14, 1400/01/25**

Update count: **0**

Registration date

2021-04-14, 1400/01/25

Registrant information

Name

Ehsan Zarepur

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 35 3624 5341

Email address

ehsanzarepur@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2020-08-22, 1399/06/01

Expected recruitment end date

2021-03-21, 1400/01/01

Actual recruitment start date

empty

Actual recruitment end date

empty
Trial completion date
empty

Scientific title
Effect of Coenzyme Q10 on echocardiographic parameters in patients with heart failure due to dilated cardiomyopathy

Public title
Effect of Coenzyme Q10 on echocardiographic parameters

Purpose
Treatment

Inclusion/Exclusion criteria
Inclusion criteria:
Children with heart failure due to dilated cardiomyopathy

Exclusion criteria:
Metabolic diseases Other cardiac diseases

Age
To 15 years old

Gender
Both

Phase
0

Groups that have been masked
No information

Sample size
Target sample size: 15

Randomization (investigator's opinion)
Not randomized

Randomization description

Blinding (investigator's opinion)
Not blinded

Blinding description
Placebo

Not used

Assignment
Single

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Hormozgan University of medical Sciences ethics committee

Street address
Hormozgan University of medical Sciences, Shahid Chamran St., Bandar Abbas

City
Bandar Abbas

Province
Hormozgan

Postal code
7916839319

Approval date
2019-12-24, 1398/10/03
Ethics committee reference number
IR.HUMS.REC.1398.350

Health conditions studied

1

Description of health condition studied
Congestive Heart Failure

ICD-10 code
I50

ICD-10 code description
Heart failure

Primary outcomes

1

Description
Ejection fraction

Timepoint
2 months

Method of measurement
Echocardiography

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: Patients will be treated with coenzyme Q10 1 mg (Golden Life, Australia), orally daily for 2 months.

Category
Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center
Bandar Abbas Children's Hospital

Full name of responsible person
Amirhossein Zarepur

Street address
No. 39, Ladan St., Maskan Shahrsazi St., Kashani St., Yazd

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Yazd

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Postal code
8915653569

Phone

+98 35 3624 5341

Email

dr.amirhosseinzarepur@gmail.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Bandare-abbas University of Medical Sciences

Full name of responsible person

Dr. Shahrokh Rajaei

Street address

Bandar Abbas Children Hospital, Golshahr Shomali St., Bandar Abbas, Hormozgan

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Shahrokhrajaei@gmail.com

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Bandare-abbas 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

Bandare-abbas University of Medical Sciences

Full name of responsible person

Amirhossein Zarepur

Position

Resident

Latest degree

Medical doctor

Other areas of specialty/work

Pediatrics

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Person responsible for scientific inquiries

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Full name of responsible person

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Position

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Person responsible for updating data

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Other areas of specialty/work

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Sharing plan**Deidentified Individual Participant Data Set (IPD)**

Undecided - It is not yet known if there will be a plan to make this available

Study Protocol

No - There is not a plan to make this available

Statistical Analysis Plan

No - There is not a plan to make this available

Informed Consent Form

No - There is not a plan to make this available

Clinical Study Report

Undecided - It is not yet known if there will be 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