

Clinical benefits of additional resistance-type exercise during an endurance-type exercise intervention in coronary artery disease patients

Submission date 14/01/2010	Recruitment status No longer recruiting	☐ Prospectively registered ☐ Protocol
Registration date 09/02/2010	Overall study status Completed	☐ Statistical analysis plan ☐ Results
Last Edited 09/02/2010	Condition category Circulatory System	☐ Individual participant data ☐ Record updated in last year

Plain English summary of protocol
Not provided at time of registration

Contact information

Type(s)
Scientific

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Additional identifiers

Protocol serial number
07.48/cardio07.081

Study information

Scientific Title
Clinical benefits of additional resistance-type exercise during an endurance-type exercise intervention in coronary artery disease patients: a randomised controlled trial

Acronym

STIMCARE

Study objectives

We hypothesise that by adding resistance-type exercise during an endurance-type exercise intervention, significantly greater clinical benefits are achieved in coronary artery disease patients.

Ethics approval required

Old ethics approval format

Ethics approval(s)

Medical Ethical Committee of Jessa Hospital approved on the 29th January 2007 (ref: 07.48 /cardio07.081)

Primary study design

Interventional

Study design

Prospective randomised clinical trial

Study type(s)

Quality of life

Health condition(s) or problem(s) studied

Coronary artery disease

Interventions

All subjects exercised under close supervision of experienced physiotherapists three days per week for a total duration of six weeks in the cardiac rehabilitation centre of the hospital. Exercise training intensity was determined by baseline VO₂ peak assessment: subjects exercised at a heart rate corresponding to 65% of baseline VO₂ peak, for 40 minutes each exercise training session (17 minutes cycling, 13 minutes walking, 10 minutes arm cranking). Subjects were randomly (by coin) assigned to an endurance-training group, or combined endurance and strength-training group.

Intervention Type

Other

Phase

Not Applicable

Primary outcome(s)

1. Maximal exercise capacity
2. Sub-maximal exercise capacity
3. Muscle strength
4. Blood plasma lipid profile and glycaemic control
5. Habitual activity level

These measurements were executed at entry of rehabilitation, and after 7 weeks of rehabilitation.

Key secondary outcome(s)

1. Blood endothelial progenitor cell
2. Cytokine content

These measurements were executed at entry of rehabilitation, and after 7 weeks of rehabilitation.

Completion date

01/03/2010

Eligibility**Key inclusion criteria**

60 coronary artery disease (CAD) patients (aged between 45 - 80 years, either sex) agreed to participate in this study.

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Adult

Sex

All

Key exclusion criteria

1. Complicated hospitalisation (renal failure, sepsis)
2. Delayed and/or complicated sternum healing
3. Hypertension (greater than 150 mmHg systolic blood pressure at rest and/or greater than 250 mmHg systolic blood pressure during exercise)
4. Presence of pulmonary and renal co-morbidity
5. Peripheral artery disease
6. Orthopaedic limitations
7. Subjects presenting myocardial ischaemia and/or severe ventricular arrhythmias during baseline exercise testing

Date of first enrolment

01/02/2008

Date of final enrolment

01/03/2010

Locations**Countries of recruitment**

Belgium

Study participating centre

Jessa Hospital

Hasselt

Belgium

3500

Sponsor information

Organisation

Heart Centre Hasselt vzw (Belgium)

ROR

<https://ror.org/03tw90478>

Funder(s)

Funder type

Hospital/treatment centre

Funder Name

Heart Centre Hasselt vzw (Belgium)

Results and Publications

Individual participant data (IPD) sharing plan**IPD sharing plan summary**

Not provided at time of registration