Influence of ryanodyne receptor 1 mutations on pulmonary arterial pressure and ventilation during isocapnic hypoxia

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W want to investigate the influence of a mutaion in the MH allel on the HPV and the normal reaction of MH patients to hypoxia

Ethical review	Approved WMO
Status	Will not start
Health condition type	Vascular hypertensive disorders
Study type	Interventional

Summary

ID

NL-OMON36376

Source
ToetsingOnline

Brief title
Ryan op pad

Condition

- Vascular hypertensive disorders

Synonym
pulmonary hypertension

Research involving
Human

Sponsors and support

Primary sponsor: Leids Universitair Medisch Centrum
Source(s) of monetary or material Support: Ministerie van OC&W

Intervention

Keyword: HPV, HVR, hypoxia, ryanodine receptor

Outcome measures

Primary outcome

HPV

Secondary outcome

cardiac parameters

hypoxic ventilatory response

Study description

Background summary

During hypoxia, a phenomenon called hypoxic pulmonary vasoconstriction, occurs. This reaction protects the body by lowering bloodflow to less ventilated parts of the long. This protecting mechanism can also harm the patient. This is the case with COPD and the development of pulmonary hypertension. The ryanodine receptor plays an important role in HPV. MH patients have a mutation in the ryanodine receptor gen and studies in mice show a different reaction to hypoxia.

Study objective

W want to investigate the influence of a mutaion in the MH allel on the HPV and the normal reaction of MH patients to hypoxia

Study design

case controlled intervention study

Intervention

hypoxia

Study burden and risks

headache during hypoxia somethimes occurs, which is treated with paracetamol
a bruise may occur on the spot of the iv

Contacts

Public
Leids Universitair Medisch Centrum

albinusdreef 2
2333 ZA, Leiden
NL
Scientific
Leids Universitair Medisch Centrum

albinusdreef 2
2333 ZA, Leiden
NL

Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age
Adults (18-64 years)
Elderly (65 years and older)

Inclusion criteria

Healthy Malignant Hyperthermia patients with a phenotypic high susceptibility and a proven causative mutation.
The major inclusion criteria are that the subject has echo evidence of tricuspid regurgitation during systole, which is not clinically relevant but in fact can be demonstrated in most normal individuals.

Exclusion criteria

• Obesity (BMI > 30)
• Presence of medical disease: heart-, lung-, liver-, kidney- and lung disease; diabetes
• Presence of psychiatric disease
• History of chronic alcohol or drug use
• Possibility of pregnancy
• Lactation

Study design

Design

Study type:	Interventional
Intervention model:	Other
Allocation:	Non-randomized controlled trial
Masking:	Open (masking not used)
Control:	Active
Primary purpose:	Basic science

Recruitment

NL

Recruitment status:	Will not start
Enrollment:	24
Type:	Anticipated

Ethics review

Approved WMO Date:	23-05-2011
Application type:	First submission
Review commission:	METC Leids Universitair Medisch Centrum (Leiden)

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register	ID
CCMO	NL35083.058.11