

The effect of intrathoracic pressure on right ventricular function in healthy subjects

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Evaluate the effect of intrathoracic pressure on right ventricular function in healthy subjects.

Ethical review	Approved WMO
Status	Recruiting
Health condition type	Respiratory disorders NEC
Study type	Observational invasive

Summary

ID

NL-OMON34724

Source

ToetsingOnline

Brief title

Intrathoracic pressure and the right ventricle

Condition

- Respiratory disorders NEC

Synonym

COPD, emphysema

Research involving

Human

Sponsors and support

Primary sponsor: Vrije Universiteit Medisch Centrum

Source(s) of monetary or material Support: Ministerie van OC&W

Intervention

Keyword: Cardiac MRI, Intrathoracic pressure, Loaded breathing, Right Ventricular function

Outcome measures

Primary outcome

Ejection Fraction

Stroke Volume

Esophageal pressure

Pulsatility of Pulmonary Artery

Secondary outcome

not applicable

Study description

Background summary

In chronic obstructive pulmonary disease (COPD) high intrathoracic pressure may develop due to airflow limitation and hyperinflation. The effect of high intrathoracic pressure on pulmonary artery pressure and right ventricular function is not well known.

(see also dossier: NL30766.029.10)

Study objective

Evaluate the effect of intrathoracic pressure on right ventricular function in healthy subjects.

Study design

Observational

High intrathoracic pressure during expiration in healthy subjects will be created by expiration through a adjustable water column, during cardiac Magnetic Resonance Imaging

The esophageal pressure, as a surrogate of intrathoracic pressure, while breathing against the different levels of water will be measured after the cMRI.

Study burden and risks

No risks known for this study

Only burden is this study is the esophageal balloon for pressure measurements

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age

Adults (18-64 years)

Elderly (65 years and older)

Inclusion criteria

Healthy subjects

> 18 yrs

Exclusion criteria

Smoking
Cardiovascular disease
Pulmonary disease
Systemic Hypertension
Claustrophobia

Study design

Design

Study type: Observational invasive

Masking: Open (masking not used)

Control: Uncontrolled

Primary purpose: Basic science

Recruitment

NL
Recruitment status: Recruiting
Start date (anticipated): 15-04-2010
Enrollment: 12
Type: Actual

Ethics review

Approved WMO
Date: 25-03-2010
Application type: First submission
Review commission: METC Amsterdam UMC

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	NL30803.029.10