Reproducibility of functional Magnetic Resonance Imaging of the kidneys

Published: 25-10-2013
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The aim of current study is to determine reproducibility (both interscan and interreader reproducibility) of the different functional MR measurements of the kidneys.

Ethical review	Approved WMO
Status	Recruitment stopped
Health condition type	Other condition
Study type	Observational invasive

Summary

ID

NL-OMON47252

Source
ToetsingOnline

Brief title
ReMaRK.

Condition

- Other condition
- Renal disorders (excl nephropathies)

Synonym
kidneys renal

Health condition

Hypertensie

Research involving
Human

Sponsors and support

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

Intervention

Keyword: BOLD-MRI, DCE_MRI, kidney, reproducibility

Outcome measures

Primary outcome

The coefficient of variation (CV in %) , the repeatability coefficient (RC),

and a measure for reliability, the intraclass correlation coefficient (ICC)

will be calculated.

Secondary outcome

NA

Study description

Background summary

Blood oxygenation level-dependent magnetic resonance imaging (BOLD-MRI) is a method to measure renal oxygenation and quantify ischemic areas within the kidneys. Dynamic contrast enhanced MRI (DCE-MRI) and arterial spin labeling (ASL) can be used in the evaluation of renal blood flow.

Study objective

The aim of current study is to determine reproducibility (both interscan and interreader reproducibility) of the different functional MR measurements of the kidneys.

Study design

The current study is a validation study to determine interscan and interreader reproducibility of functional MR measurements (BOLD-MRI, DCE-MRI and ASL) of the kidney in healthy subjects. Thirty healthy subjects will be included in

this present study.

Study burden and risks

Subject will not benefit from the study. The risks associated with the procedures performed for the study are very limited.

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

1.Individual is >=40 years of age

Exclusion criteria

1. Known kidney or cariodvascular disease
2. Any contraindications for MRI

Study design

Design

Study type: Observational invasive

Masking:	Open (masking not used)
Control:	Uncontrolled
Primary purpose:	Diagnostic

Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	11-03-2014
Enrollment:	30
Type:	Actual

Ethics review

Approved WMO Date:	25-10-2013
Application type:	First submission
Review commission:	METC NedMec
Approved WMO Date:	18-10-2017
Application type:	Amendment
Review commission:	METC NedMec
Approved WMO Date:	14-03-2018
Application type:	Amendment
Review commission:	METC NedMec

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	NL45144.041.13