Does Transient Cerebral Arteriopathy exist in adults? The course of unilateral intracranial large-artery arteriopathy.

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Primary aim: to investigate the possible existence of *transient* or non-progressive non-atherosclerotic arteriopathy as a cause of AIS in young adults, and to describe the course of young adulthood unilateral intracranial arterial disease.Secondary...

Ethical review	Approved WMO
Status	Recruitment stopped
Health condition type	Central nervous system vascular disorders
Study type	Observational invasive

Summary

ID

NL-OMON29860

Source
ToetsingOnline

Brief title
TCA in adults.

Condition

- Central nervous system vascular disorders
- Arteriosclerosis, stenosis, vascular insufficiency and necrosis

Synonym
ischaemic stroke, stroke

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: stroke, transient cerebral arteriopathy, young adults

Outcome measures

Primary outcome

1. Change in the arteriopathy on MRA

Secondary outcome

1. Recurrent ischaemic events (TIA or stroke) since the initial diagnosis.

2. Functional outcome at follow-up will be assessed according to the modified

Rankin Scale

Study description

Background summary

The majority of childhood arterial ischaemic stroke (AIS) is caused by cerebral arteriopathies. The increased use of vascular imaging techniques has led to the recognition of a newly identified arteriopathic entity: *Transient Cerebral Arteriopathy* (TCA), a unilateral intracranial non-progressive arteriopathy of presumed inflammatory origin. To diagnose TCA, a follow-up angiogram showing stabilisation or regression of vascular pathology is required.
In circa 30% of young adults with AIS the cause of stroke remains unknown despite an extensive diagnostic work-up. Hitherto, TCA has only been demonstrated in children. However, unilateral intracranial non-atherosclerotic stenotic arterial disease is also encountered in young adults. The angiographic course of these arteriopathies in this age group is unknown, since follow-up vascular imaging is generally not performed.

Study objective

Primary aim: to investigate the possible existence of *transient* or non-progressive non-atherosclerotic arteriopathy as a cause of AIS in young adults, and to describe the course of young adulthood unilateral intracranial arterial disease.
Secondary aim: to study the possible etiological factors contributing to unilateral intracranial large-artery arteriopathy in young adults.

Study design

From the Utrecht Stroke Database we identified a cohort of 18 (out of 773) AIS patients between 16 and 50 years with anterior circulation unilateral intracranial large-artery arteriopathy as demonstrated with vascular imaging performed within three months of disease onset.
Data from the patients* medical record regarding history, examination, outcome and laboratory results will be retrospectively collected to obtain insight into the possible nature of the arteriopathy. The patients will undergo a clinical follow-up examination, including assessment of functional outcome by means of the modified Rankin scale and a magnetic resonance angiogram (MRA). The vascular imaging at disease onset will be reviewed and compared with the follow-up MRA to investigate the course (progression, stabilisation or regression) of the arteriopathy. Possible atherosclerotic and prothrombotic risk factors will be investigated to assess their relevance in the pathogenesis of the cerebral arteriopathy.

Study burden and risks

Patients will visit the hospital twice for approximately two hours at each visit.
We do not expect adverse events from the one-time blooddrawing nor from the MR investigation. Some patients may feel claustrophobic during the MR.

The study may give insight in the cause of ischemic stroke in young patients with unilateral intracranial arteriopathy.

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

- age between 18 and 50 years
- anterior circulation arterial ischaemic stroke
- vascular imaging within 3 months after ischaemic stroke showing unilateral intracranial arteriopathy

Exclusion criteria

- pacemaker

Study design

Design

Study type: Observational invasive

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

Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	08-05-2007

Enrollment:	18
Type:	Actual

Ethics review

Approved WMO Date:	16-01-2007
Application type:	First submission
Review commission:	METC Universitair Medisch Centrum Utrecht (Utrecht)

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	NL12099.041.06