Development of Alcohol Use Disorders: the role of clinical, psychological, environmental and neurobiological factors; an fMRI substudy

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The present study aims to investigate several cognitive and emotional factors associated with chronicity of alcohol dependence.

Ethical review	Approved WMO
Status	Completed
Health condition type	Psychiatric disorders NEC
Study type	Interventional

Summary

ID

NL-OMON33738

Source
ToetsingOnline

Brief title
Neurobiological factors in alchohol use disorders; an fMRI study

Condition

- Psychiatric disorders NEC

Synonym
Alcohol dependency, depression

Research involving
Human

Sponsors and support

Primary sponsor: Vrije Universiteit Medisch Centrum
Source(s) of monetary or material Support: NWO ZonMW (Addiction program)

Intervention

Keyword: Alcohol dependency, fMRI, Habit formation

Outcome measures

Primary outcome

Behavioural data and Blood Oxygenated Level Dependent (BOLD)-response, recorded using fMRI, will be measured. These, and behavioural data are correlated with chronicity of alcohol dependence in order to investigate weather differences in several cognitive and motivational activities underlie the differences in chronicity of alcohol dependence.

Secondary outcome

nvt

Study description

Background summary

Neurophysiological changes in the brain are important in the development and maintenance of disorders in alcohol use, like alcohol dependency (AD). AD is characterized by abnormal functioning of several cortical and subcortical brain areas. This dysregulation is characterized by increased responsiveness to stimuli that have become associated with the drug through conditioning. Whether this enhanced responsiveness to drug cues is associated with abnormal reactivity to emotional stimuli in general is poorly understood. The present substudy will examine the neurophysiological pathways of AD in a large high-risk cohort of 2981 persons with depressive and/or anxiety disorders as part of the Netherlands Study of Depression and Anxiety (NESDA). Functional magnetic resonance imaging (fMRI) will be performed in patients with alcohol dependence of varying chronicity. Processing of emotional and motivational information as well as cognitive control will be examined and compared between groups. We expect that in less chronic AD mostly deficiencies in rewarding and motivation will be visible, while in the more chronic AD deficiencies will be mainly present in cognitive control and habit formation.

Study objective

The present study aims to investigate several cognitive and emotional factors associated with chronicity of alcohol dependence.

Study design

Cross-sectional experimental design using MRI-techniques.

Intervention

A part of the patients will be asked not to drink any alcohol 24 hours prior to the research.

Study burden and risks

Participants will visit the AMC (location of the scanner) once. This visit will last maximally 2 hours. Forms and questionnaires will be filled in. Four behavioural tasks will be perfomed during the MRI scan session of approximately 70 minutes. All respondents are asked not to drink alcohol or use drugs 24 hours prior to the experimental day. A urine sample and an alcohol-breath test will be taken. Blood pressure and heartbeat will be measured with an automated blood pressure monitor.

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

Per group: (I) current DSM-IV diagnosis alcohol dependency and 6 month DSM-IV diagnosis of depression and/ or anxiety disorder; (II) 6-month DSM-IV diagnosis depression and/or anxiety disorder; (III) No DSM-IV psychiatric disorder

Exclusion criteria

(a) the use of psychotropic medication except for selective serotonin reuptake inhibitors in stable dosage, (b) major internal or neurological disorder, (c) known contra-indications for MR investigations, such as the presence of metal objects (e.g. pacemaker, arteriovenous clips), or claustrophobia

Study design

Design

Study type:	Interventional
Intervention model:	Other
Allocation:	Non-randomized controlled trial
Masking:	Open (masking not used)

Primary purpose: Basic science

Recruitment

NL

Recruitment status:	Completed
Start date (anticipated):	25-09-2009

Enrollment:	80
Type:	Actual

Ethics review

Approved WMO Date:	02-03-2009
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	NL26065.029.08