The role of dopamine in perception

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

Summary

ID

NL-OMON46867

Source
ToetsingOnline

Brief title
DA and perception

Condition

- Other condition

Synonym
NA

Health condition

geen aandoening. Onderzoek betreft de werking van dopamine in het gezonde brein.

Research involving
Human

Sponsors and support

Primary sponsor: Universiteit van Amsterdam
Source(s) of monetary or material Support: ERC grant

Intervention

Keyword: cognition, dopamine, neuroscience, perception

Outcome measures

Primary outcome

Primary study parameters will include task performance (e.g. accuracy, reaction times), electroencephalographic (EEG) measures and functional magnetic resonance imaging (fMRI) measures.

Secondary outcome

Measures of baseline spontaneous eye blink rate

Study description

Background summary

Preliminary evidence suggest that the neurotransmitter dopamine and in particular dopaminergic innervation of the basal ganglia might play a role in conscious perception. In the proposed study we aim to provide causal evidence for this hypothesis.

Study objective

The primary objective is to investigate the effects of dopamine receptor stimulation on neural and behavioural measures of perception and consciousness. The secondary objective is to establish the relation between the effects of dopamine stimulation and baseline characteristics of individual subjects.

Study design

This study will use a within-subject, double-blind, placebo-controlled randomized crossover design.

Intervention

Subjects will receive 1.5 mg cabergoline or placebo on two different test sessions in a randomized order.

Study burden and risks

After an initial intake session, the subject will have to visit the laboratory site two times. At each visit they will have to complete a series of tasks after receiving 1.5 mg cabergoline or placebo. Neural activity will be measured with EEG or fMRI which are both safe methods with no long-term side effects. On the day before each visit they will have to adhere to some simple restrictions regarding medication, alcohol and drug intake. In the morning of each visit they will have to refrain from smoking and stimulant-containing drinks. The most common side effects of cabergoline in healthy volunteers include nausea, dizziness, headache, sleepiness and a loss of concentration. Previous studies have shown that the single dose of 1.5 mg cabergoline is well tolerated in healthy adults. Considering the extensive exclusion criteria, screening procedure and constant monitoring of the subjects, we do not expect serious side effects.

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 volunteers between 18 and 30 years old
Native Dutch speakers
Predominant right-handedness
BMI between 18.5 and 30
Use of hormonal contraceptives (female participants only)

Exclusion criteria

Current or history of any medical or psychiatric disorder or disease
Abnormal bloodpressure or heart rate;For complete overview of the exclusion criteria, see C1

Study design

Design

Study type:	Interventional
Intervention model:	Crossover
Masking:	Double blinded (masking used)
Control:	Uncontrolled
Primary purpose:	Other

Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	02-01-2018
Enrollment:	90
Type:	Actual

Ethics review

Approved WMO

Date:	11-10-2017
Application type:	First submission
Review commission:	METC Amsterdam UMC
Approved WMO Date:	13-03-2018
Application type:	Amendment
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	NL58810.018.16