How do neglect patients process visual stimuli?

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In this reseach we will map out how visual perception proceeds when attention is impaired. We will study hemineglect patients. We will test how their visual cortex responds, if a visual stimulus is presented to their neglected visual field. Is there…

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

Summary

ID

NL-OMON35838

Source
ToetsingOnline

Brief title
VPIN - visual processing in neglect

Condition

- Other condition

Synonym
attentional-deficit, hemineglect

Health condition

hersentrauma

Research involving
Human

Sponsors and support

Primary sponsor: Universiteit van Amsterdam
Source(s) of monetary or material Support: Ministerie van OC&W

Intervention

Keyword: attention, consciousness, hemianopsia, neglect

Outcome measures

Primary outcome

Neural reaction to unattended visual stimuli.

Secondary outcome

Not applicable

Study description

Background summary

How does attention affect visual processing?
This central question within the field of visual perception is not entirely hypothetical, since, unfortunately, attention deficits are rather common. Hemineglect, the most well-known attention deficit, is the result of brain-trauma, which causes the sufferer the inability to attend contralateral to the site of the trauma. Behaviorally, this leads to actions that suggest that the patient is blind to this part of his visual field. However, is this just a behavioral deficit (the patient does not use the visual information that is available to him), or is it a perceptual deficit (no visual information is available to the patient)?

Study objective

In this reseach we will map out how visual perception proceeds when attention is impaired. We will study hemineglect patients. We will test how their visual cortex responds, if a visual stimulus is presented to their neglected visual field. Is there any reaction at all? And if there is a reaction, is it like the neural reaction of healthy controls? Or is it morel like the neural reaction of patients that are partially blind (hemianopsia-patients)?

Study design

First, we will decide through a simple behavioral test whether someone has neglect, hemianopsia, or no visual affliction.
If someone belongs to one of these three categories, then he/she will subsequently perform a very simple task (which only goal it is to ensure that the participant keeps his/her eyes fixated on the center of the screen) while he/she is placed in a fMRI-scanner.
During this task several visual stimuli will be presented in the periphery, and the neural reaction to these stimuli will be recorded.

Study burden and risks

Hardly any burden, no risks.

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

8 neglect patients, 8 hemianoptic patients, and 8 healthy controls. Subjects can only participate after a test shows that they either have neglect, hemianopsia, or that they are healthy.

Exclusion criteria

Subjects can only participate after extensive screening that ensures that it is no risk for them to ly inside a fMRI scanner.

Study design

Design

Study type: Observational invasive

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

Recruitment

NL

Recruitment status:	Recruiting
Start date (anticipated):	01-06-2012
Enrollment:	24
Type:	Actual

Ethics review

Approved WMO

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	NL36498.018.11