THE EFFECT OF ELECTRO CONVULSIVE THERAPY (ECT) ON RECONSOLIDATION OF HUMAN LONG-TERM MEMORY

Published: 03-02-2010
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To determine whether ECT disrupts reconsolidation in humans

Ethical review	Approved WMO
Status	Recruiting
Health condition type	Anxiety disorders and symptoms
Study type	Observational non invasive

Summary

ID

NL-OMON32461

Source
ToetsingOnline

Brief title
Reconsolidation and ECT

Condition

- Anxiety disorders and symptoms

Synonym
Anxiety disorders, Depression

Research involving
Human

Sponsors and support

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

Intervention

Keyword: ECT, Emotion, Memory, Reconsolidation

Outcome measures

Primary outcome

- Reactivation: Difference in memory for reactivated vs non-reactivated material.

- Sustained memory disruption: Difference in memory for reactivated vs non reactivated material after a delay period controlling for spontaneous recovery.

- Time-dependency: Difference in memory for reactivated vs non-reactivated material immediately after ECT and 24h after ECT.

- Secondary encoding: Difference in reactivated memory vs non-reactivated memory post- and pre-ECT

Secondary outcome

- Emotional memory: Difference in memory for emotional vs neutral material.

- General effect of ECT: Difference in general memory pre- and post-ECT.

Study description

Background summary

Reconsolidation refers to the process of memories returning from a fixed state to a labile state upon reactivation, once again requiring a time-dependent storage process. Animal studies on reconsolidation generally use protein-synthesis inhibitors or electroconvulsive shock as disrupting stimulus, methods not readily available to scientists dealing with healthy subjects. As such human studies towards reconsolidation have been problematic and inconclusive. Nevertheless, evidence for the existence of this process in humans is much anticipated, as it is believed to provide an new avenue to the development of novel treatments of anxiety and depression disorders. Here we aim to determine the existence of a reconsolidation process in humans. To this

aim we will examine memory following reactivation in a clinically depressed patient population undergoing ECT as part of their medical treatment. Prior to ECT memory will be reactivated and will be assessed following ECT.

Study objective

To determine whether ECT disrupts reconsolidation in humans

Study design

The study will be a three-armed between subjects design, with the critical reactivation condition within subjects.

Study burden and risks

Considering the short behavioral paradigm we believe the extent of the burden to the subject is limited. We do not conceive of any risks involved in participation in this study. The scientific question at hand is critical in the current neuroscientific debate and the study results may benefit the patient group in the future. Considering all this, we believe the benefits of this study outweigh the burden to the participants.

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

- Gender: male and female
- Age: >18 years
- Patients undergoing ECT for unipolar major depressive disorder with and without psychotic features.
- Patients are medication free or under a stable therapy with antidepressants
- Normal or corrected-to-normal vision
- Normal or corrected-to-normal hearing
- Willingness and ability to give written informed consent and willingness and ability to understand the nature and content, to participate and to comply with the study requirements.

Exclusion criteria

- Age: < 18
- Medical or surgical history that in the investigator*s view may significantly affect the outcome of the trial; such as presence of current or past relevant somatic or neurological disorder.
- Co-morbid diagnosis of bipolar depressions, schizophrenia, or substance dependence disorders.

Study design

Design

Study type: Observational non invasive

Masking:	Open (masking not used)
Control:	Uncontrolled

Primary purpose:	Treatment

Recruitment

NL

Recruitment status:	Recruiting
Start date (anticipated):	04-05-2010
Enrollment:	60
Type:	Actual

Ethics review

Approved WMO

Date:	03-02-2010
Application type:	First submission
Review commission:	CMO regio Arnhem-Nijmegen (Nijmegen)

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	NL30819.091.09