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The effects of Modafinil on functional magnetic resonance imaging (fMRI) brain activation and functional performance during visual stimulation and visually guided tracking manoeuvres after sleep deprivation

Submission date
24/02/2005

Recruitment status
Stopped

Registration date
13/04/2005

Overall study status
Stopped

Last Edited
16/09/2009

Condition category
Nervous System Diseases

[ ] Prospectively registered
[ ] Protocol
[ ] Statistical analysis plan
[ ] Results
[ ] Individual participant data
[ ] Record updated in last year

Plain English summary of protocol
Not provided at time of registration

Contact information

Type(s)
Scientific

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Additional identifiers

Protocol serial number
C03.056

Study information

Scientific Title

Acronym
Modafinil Study

Study objectives
Therefore we wish to examine brain activity and performance during hand/eye tracking manoeuvres, (as quantified by fMRI and our tracking tasks), in normal subjects before and after total sleep deprivation following treatment with Modafinil or placebo. We will compare whether the Modafinil has reversed the effects of the sleep deprivation, compared to placebo

Ethics approval required
Old ethics approval format

Ethics approval(s)
Not provided at time of registration

Primary study design
Interventional

Study design
Randomised controlled trial

Study type(s)
Other

Health condition(s) or problem(s) studied
N/A

Interventions
Please note that as of 16/09/09 the status of this trial has been changed to "Stopped" due to relocation of primary investigator (PI) and lack of funding.

Each subject will be scanned 3 times, the first as a baseline, after normal sleep, and then twice after sleep deprivation, following treatment with Modafinil or placebo, in random order. Within each scanning session the subject will perform a series of hand/eye tracking tests of varying difficulty in random order, and a global visual stimulation test. Following the scans objective sleepiness will be quantified from the OSLER test of subjective sleepiness and steering ability will be quantified from the Oxford Steering Simulator. Subjects will be pre-trained to stable performance on the tracking task prior to fMRI scanning.

Intervention Type
Drug

Phase
Not Specified

Drug/device/biological/vaccine name(s)
Modafinil

Primary outcome(s)
The primary endpoint of the trial is the difference in activation of the occipital visual cortex area responsible motion detection (V5/MT) during global visual stimulation after Modafinil and placebo

Key secondary outcome(s)
Sleep latency (measured by the OSLER test), driving simulator performance and tracking error will be secondary endpoints

Completion date
30/06/2006

Reason abandoned (if study stopped)
Lack of staff/facilities/resources

Eligibility

Key inclusion criteria
30 Healthy volunteers between the ages of 18-65

Participant type(s)
Healthy volunteer

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
18 Years

Upper age limit
65 Years

Sex
All

Key exclusion criteria
Previous neurological disease

Date of first enrolment
01/08/2004

Date of final enrolment
30/06/2006

Locations

Countries of recruitment
United Kingdom

England

Study participating centre
Consultant in Respiratory Medicine
Oxford
United Kingdom
OX3 7LJ

Sponsor information

Organisation
Oxford Radcliffe Hospitals NHS Trust (UK)

ROR
https://ror.org/03h2bh287

Funder(s)

Funder type
Industry

Funder Name
Cephalon UK Ltd (UK) (ref: Davies2004/unrestricted grant)

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Not provided at time of registration