Occipital alpha lateralization during a visual directed attention task in adults with ADHD as compared with typically developed adults and adults with an autism spectrum disorder.

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The main objective of this project will be to increase our knowledge of the neuronal basis of attentionalproblems in neurodevelopmental disorders, espacially ADHD and autism spectrumdisorders (ASD). Our findings will contribute to the development of...

Ethical review	Approved WMO
Status	Recruiting
Health condition type	Developmental disorders NEC
Study type	Observational non invasive

Summary

ID

NL-OMON32770

Source
ToetsingOnline

Brief title
Alpha-lateralization in ADHD

Condition

- Developmental disorders NEC

Synonym
attentiondeficit/hyperactivity disorder; ADHD

Research involving
Human

Sponsors and support

Primary sponsor: Universitair Medisch Centrum Sint Radboud
Source(s) of monetary or material Support: Ministerie van OC&W

Intervention

Keyword: ADHD, Alpha, Attention

Outcome measures

Primary outcome

Alpha-lateralization index

Secondary outcome

Not applicable.

Study description

Background summary

Attentiondeficit/hyperactivity disorder has a high prevalence world-wide. The neuronal substrate for this disorder is not clear. Alpha oscillation have been shown to play an important part in directing attention. Although study show aberent alpha oscillations in patients with ADHD, this finding has not been related to attention function yet. With magneto-encephalography (MEG) methods alpha-lateralization during attention tasks can be observed. Using these methods we can study alpha oscillations during an attention task in patients with ADHD. Because attentionproblems are also commen in other psychiatric disorders, it is relevant to investigate how specific our findings are to ADHD. Therefore patients with autism spectrum disorder, a neurodevelopmental disorder that is also characterized by attentionproblems, will be studied aswell.

Study objective

The main objective of this project will be to increase our knowledge of the neuronal basis of attentionalproblems in neurodevelopmental disorders, espacially ADHD and autism spectrumdisorders (ASD). Our findings will contribute to the development of beter diagnistic and intervention methods in the future.

Study design

Alpha activity will be measured during a directed attention task using magneto-encephalography. Alpha-lateralization will be calculated and compared between groups.

Study burden and risks

The MEG measurements will take approxemately 60 minutes in total, a practice session included. Questionairs will take 30 minutes. Particepants will invest a total of 2 hours of their time. The proposed study includes brain imaging procedures that are no burden to subject and have already been applied to a very large scale in normal subjects and in subjects with various conditions (including ADHD and ASD), without side-effects or unwanted 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

For all groups inclusion criteria will be: (1) Age between 20 and 40 years old. (2) Estimated IQ above 80. In the ADHD group subjects should be diagnosed with ADHD, combined type, based on psychiatric consultation and meet DSM criteria for ADHD as specified in DSM-IV and have a clinical score on the Conners* Rating Scale Revised (CRS-R). In the ASD group subjects should be diagnosed with autism based on psychiatric consultation and meet DSM criteria for autistic disorder or Aspergers Syndrome as specified in DSM-IV and have a clinical score on the autism diagnostic interview revised (ADI-R).

Exclusion criteria

For all groups exclusion criteria will be: (1) (Co-morbid) psychiatric or neurological disorders. (2) The use of psychotropic medication except for psychostimulants (methylphenidate). Symptomatology should tolerate temporal seizure of psychostimulant-use (see *ethical considerations* in researchprotocol).

Study design

Design

Study type: Observational non invasive

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

Recruitment

NL

Recruitment status:	Recruiting
Start date (anticipated):	16-12-2009
Enrollment:	60
Type:	Actual

Ethics review

Approved WMO

Date:	25-11-2009
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	NL29906.091.09