Distinguishing children with frontal epilepsy from children with ADHD in terms the cognitive profile.

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Distinguishing frontal lobe epilepsy from ADHD in terms of working memory.

Ethical review	Approved WMO
Status	Recruitment stopped
Health condition type	Seizures (incl subtypes)
Study type	Observational non invasive

Summary

ID

NL-OMON41600

Source
ToetsingOnline

Brief title
Do ADHD and frontal epilepsy have a different cognitive profile?

Condition

- Seizures (incl subtypes)
- Cognitive and attention disorders and disturbances

Synonym
attention disorder; epilepsy

Research involving
Human

Sponsors and support

Primary sponsor: Stichting Epilepsie Instellingen Nederland
Source(s) of monetary or material Support: subsidie wordt aangevraagd bij het NEF,eigen tijd en geld

Intervention

Keyword: ADHD, epilepsy, executive function, frontal

Outcome measures

Primary outcome

Working memory

Secondary outcome

- Cognitive flexibility

- Sustained attention

- Inhibition

- Working pace

- Memory

- Behaviour

Study description

Background summary

ADHD is a behavioural diagnosis, while frontal lobe epilepsy is a medical diagnosis. However, children with frontal lobe epilepsy show cognitive problems, resulting in learning and behavioural problems, which are also seen in children with ADHD. Those problems mainly involve executive dysfunction (working memory, cognitive flexibility, inhibition, sustained attention and working pace). Usually, children with frontal epilepsy and children with ADHD receive similar advice and treatment, sometimes with medication for behavioural problems. Some children have both diagnoses. There are many studies to distinguish epilepsy in general from ADHD. Yet, studies to give insight in the neuropsychological profile of children with frontal epilepsy are rare, let alone studies to distinguish children with frontal lobe epilepsy from children with ADHD in terms of executive functioning. Studies hypothesise that there is a difference between those groups and that further research is needed. Other studies, where ADHD behaviour in other neurological disorders have been compared to ADHD, showed a difference between the two (Mautner, Kluwer, Thakker & Leark, 2002; Kooistra, Crawford, Gibbard, Ramage & Kaplan 2009).

Because studies also show memory defects (Braakman et al, 2012; ; Jambaque, Dellatolas, Dulac, Ponsot & Signoret, 1993; Nolan, Redoblado, Lan, Sabaz, Lawson & Cunningham, 2003; Lendt, Gleissner, Helmstaedter, Sassen, Clusmann & Elger, 2002; Prevost, Lortie, Nguyen, Lassonde & Carmant, 2006) this will also be assessed in this study.

Study objective

Distinguishing frontal lobe epilepsy from ADHD in terms of working memory.

Study design

Cross sectional between group design.

Study burden and risks

The children with epilepsy are referred by neurologists because of behavioural and/or learning disorders. Therefore, all neuropsychological tests used within this protocol are administered as part of the regular diagnosis procedure. There will be no extra burden for these children.
There are children with frontal epilepsy who were referred in the past two years.
These children will be asked to participate in the study also en will undergo the same tests as the children who are referred. Some tests have been carried out earlier and with permission of the parents, this data will be used.
Most of the children with ADHD have already been tested elsewhere in order to establish the diagnosis, in the special health care institution and the hospital. However, additional testing will be needed because not all tests of our protocol will have been used to establish a diagnosis. Neuropsychological testing does usually not involve medical risk. The risk for these children will be no greater than what may be experienced in everyday life.

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age
Children (2-11 years)

Inclusion criteria

- Children aged 8-12 years;
- Diagnosed with frontal lobe epilepsy or ADHD as diagnosed by the DSM-IV criteria (American Psychiatric Association, 2000);
- IQ > 70 (testing no older than 2 years) or if not tested before academic scores not lower then C (CITO) on language and math;
- Ability to understand and read Dutch.

Exclusion criteria

- Coexisting psychiatric disorder as diagnosed by the DSM-IV criteria (American Psychiatric Association, 2000);
- Coexisting medical disease which can influence testing;
- Treatment with psychiatric medication which can influence testing;
- Specific epilepsy syndromes in which children can deteriorate.

Study design

Design

Study type: Observational non invasive
Masking: Open (masking not used)

Control:	Uncontrolled
Primary purpose:	Diagnostic

Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	01-01-2013
Enrollment:	80
Type:	Actual

Ethics review

Approved WMO Date:	23-10-2012
Application type:	First submission
Review commission:	METC Twente (Enschede)
Approved WMO Date:	23-04-2015
Application type:	Amendment
Review commission:	METC Twente (Enschede)

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

Other (possibly less up-to-date) registrations in this register

ID: 28942
Source: Nationaal Trial Register
Title:

In other registers

Register	ID
CCMO	NL41630.044.12
Other	TC3551
OMON	NL-OMON28942