Neurofeedback as a remediation for late neurocognitive sequelae in survivors of childhood brain tumours: a pilot study

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The aim is to study if Neurofeedback can be an applicable intervention.for survivors of childhood brain tumours. The QEEG wil be investigated whether under or overactive brainareas exist which can be trained. This study will also investigate whether...

Ethical review	Approved WMO
Status	Pending
Health condition type	Miscellaneous and site unspecified neoplasms benign
Study type	Interventional

Summary

ID

NL-OMON30359

Source
ToetsingOnline

Brief title
Neurofeedback in survivors of childhood brain tumours

Condition

- Miscellaneous and site unspecified neoplasms benign
- Mental impairment disorders

Synonym
brain damage after childhood cancer

Research involving
Human

Sponsors and support

Primary sponsor: Academisch Medisch Centrum
Source(s) of monetary or material Support: nog niet bekend

Intervention

Keyword: Neurofeedback, Remediation, Surviors of childhood brain tumours

Outcome measures

Primary outcome

Judgement of the QEEG

Neurocognitive measurements

Secondary outcome

not applicable

Study description

Background summary

Treatment-induced neurotoxicity by operation, chemotherapy and radiotherapy causes often neurocognitive deficits in childhood braintumour survivors. These deficits exist of problems with attention, speed, memory and visuoconstructiveness. The neurocognitive deficits have major consequences in daily life and interfere in school perfomance, social functioning and growing up.
Intervention possibilities are still rare for these survivors, whilst these interventions are essential for this specific group.

Study objective

The aim is to study if Neurofeedback can be an applicable intervention.for survivors of childhood brain tumours. The QEEG wil be investigated whether under or overactive brainareas exist which can be trained. This study will also investigate whether there will be found improvements in cognitive functioning. Finally changes in QEEG will be related to cognitive changes.

Study design

The design of this study is an pilot intervention study with two measurements, before and after the intervention. We will examine the applicability of neurofeedback on this group.

Intervention

20 sessions neurofeedback

Study burden and risks

This intervention is not invasive and the child will stay in control, while the childs own skills will improve.
There will be made a QEEG which will take one and a half hour. A second QEEG will be made after the neurofeedback training. The neuropsychological examination will take 3 hours and will be repeated after the training.
The interventionstudy consist of 20 sessions neurofeedback (60 minutes each). The child sits behind a computer screen and will get attractive feedback (e.g. a video, game or music) based on their brain activity. The sessions neurofeedback wil be given twice a week.

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age

Adolescents (12-15 years)
Adolescents (16-17 years)
Children (2-11 years)

Inclusion criteria

child is familiar with neurocognitive deficits

Exclusion criteria

neurological contraindications

Study design

Design

Study type: Interventional

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

Recruitment

NL

Recruitment status:	Pending
Start date (anticipated):	15-12-2006
Enrollment:	10
Type:	Anticipated

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	NL15000.018.06