The latency of the P300 peak (an outcome of an electrofysiological measurement) as an objective measure of auditory processing

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The aim of the study is to archive an objective measure for auditory processing disorders, using the P300 measurement, an auditory event related potential. This to be able to discriminate between children with and without auditory processing...

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

Summary

ID

NL-OMON30796

Source
ToetsingOnline

Brief title
An objective measure for auditory processing

Condition

- Hearing disorders

Synonym
soundprocessing, what you do with what you hear

Research involving
Human

Sponsors and support

Primary sponsor: Erasmus MC, Universitair Medisch Centrum Rotterdam

Source(s) of monetary or material Support: Ministerie van OC&W

Intervention

Keyword: Auditory processing (disorders), electrofysiology, ERP, P300/P3

Outcome measures

Primary outcome

Parameters to describe the P300 peak; the latency and the amplitude.

Secondary outcome

not applicable

Study description

Background summary

Auditory information is conducted from the cochlea to the brain in a way that is - to a certain extend - measurable. If we measure auditory event related potentials (AERP's), we measure the reaction of the brain to sound. The hypothesis of this study is: the better (more synchonus and quicker) the sound is conducted to the brain, the shorter the latency of the P300 peak, and the better the auditory processing.

Study objective

The aim of the study is to archive an objective measure for auditory processing disorders, using the P300 measurement, an auditory event related potential. This to be able to discriminate between children with and without auditory processing disorders.

Study design

The study designs is: case control study, in which also a correlation analysis will take place.

Study burden and risks

The burden assiciated with participation is undergoing the tests, for the patientgroup whis will cost an extra 40 minutes, for the control group this wil cost 2 hours at maximum divided over 2 or 3 sessions. There is no risk at

participation.

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

Both groups:
- gender: mixed, if possible: matched.
- Age: 9:0 - 12:0 year, if possible: matched
- Normal periferal hearing on both sides
Patient group:
- Know at the AC's of de Koninklijke Auris Groep or ErasmusMC afd. Sophia.
- Treater doubts the auditory processing on basis of:
Anamnesis and/or questionnaires and/or previous (auditory processing)tests

Control group:
- Pupils of last three classes of a primary school
- No problems with hearing or language or speech.

Exclusion criteria

- general developmental problems
- Diagnosis of attention or concentration problems
- Primary speech or language developmental problems

Study design

Design

Study type:	Observational non invasive
Intervention model:	Other
Allocation:	Non-randomized controlled trial
Masking:	Open (masking not used)

Primary purpose: Diagnostic

Recruitment

NL

Recruitment status:	Recruiting
Start date (anticipated):	01-06-2007
Enrollment:	50
Type:	Actual

Ethics review

Approved WMO

Date:	04-04-2007
Application type:	First submission
Review commission:	METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)

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	NL16075.078.07