Diagnosis and evaluation of therapy in Apraxia of Speech

Published: 18-02-2009
Last updated: 06-05-2024

The aim of this study is twofold. First a normed and validated diagnostic test for apraxia of speech will be developed and second a measure will be set up to evaluate the effectivity of the therapy SMTA. A test to diagnose apraxia of speech is...

Ethical review	Approved WMO
Status	Pending
Health condition type	Other condition
Study type	Observational non invasive

Summary

ID

NL-OMON32882

Source
ToetsingOnline

Brief title
Diagnosis of Apraxia of Speech

Condition

- Other condition

Synonym
Apraxia of Speech; neurogenic speech deficits

Health condition

neurologische hersenaandoeningen

Research involving
Human

Sponsors and support

Primary sponsor: Rijksuniversiteit Groningen
Source(s) of monetary or material Support: Stichting Beatrixoordfonds en Stichting Afasie Nederland

Intervention

Keyword: apraxia of speech, diagnostic materials, neurogenic speech disorders

Outcome measures

Primary outcome

Proper diagnosis and evaluation of the effect of therapy are very important for the treatment of speech and language deficits. For the patient suffering from a speech disorder the main aim of treatment is optimal communication. A specific kind of treatment, like for example SMTA, is assumed to largely contribute to an improvement of communication and by this to an improvement of the quality of life. In order to show the effectiveness of a therapy, both a valid diagnostic instrument and a measure that can determine improvement are necesarry.

Secondary outcome

not applicable

Study description

Background summary

Apraxia of speech is described as a speech deficit that occurs due to brain damage. It is characterized by problems in (the planning of) different sound segments. There is a lot of debate in the literature about the underlying cause of apraxia of speech. The fact that apraxia of speech almost never occurs in isolation (cf. Ogar et al., 2006) forms a very prominent limitation. The absence of clear evidence for one of the theories on the underlying deficit in apraxia of speech is probably also due to the fact that often no proper diagnosis is made due to the failure of a test that can come up with a

differential diagnosis.
Worldwide no adequate diagnostic test batteries are available and this often leads to diagnosis on the basis of a very subjective clinical judgements based on test scores. Therefore, it is very important that a valid and reliable diagnostic test will be developed. In order to also evaluate therapy that fits with this diagnosis, a measure for change in speech (either improvement of deterioration) is needed. Such a measure has never been described in literature and consequently the development of this measure will also be part of the current study.

Study objective

The aim of this study is twofold. First a normed and validated diagnostic test for apraxia of speech will be developed and second a measure will be set up to evaluate the effectivity of the therapy SMTA. A test to diagnose apraxia of speech is unavailable in the Netherlands and also worldwide no adequate tests have been described. Nevertheless, such a test is important to determine the origin and severity of the underlying deficit. Besides this, it is often difficult to differentiate apraxia of speech from other neurogenic speech deficits, like dysarthria, but also from speech errors in aphasic subjects. This means that the test that will be developed needs to be able come up with this differentation.

Study design

In a first session the participants will be administered with the diagnostic test for apraxia of speech. This test will consist of 5 repetition tasks in which combinations of sounds, alternating in difficulty, are asked to be reapeted. Next, written picture naming task wil be tested. Third, the test for buccofacial apraxia will be administered in which the particpant is asked to execute some facial, mouth or tongue movements. In a second session the test for the effectivity of therapy will be administered. Participants are asked to repeat sequences of speech sounds. These sequences are either repeating or alternating.

Study burden and risks

The study to the diagnosis of apraxia of speech, as described in the protocol, does - according to us - not entail any risks for the participants. Only cognitive tasks will be administered. These are tests in which sounds and words must be repeated. Next, the participants are asked to write down the names of some pictures. Finally, the test for buccofacial apraxia is administered in which the particpant is asked to execute some facial, mouth or tongue movements. Two sessions are planned, both lasting maximally two hours. Part of the subjects will be tested with the same tests twice in order to account for the

test-retest variability.

Contacts

Public
Rijksuniversiteit Groningen

Oude Kijk in 't Jatstraat 26
9712 EK Groningen
Nederland
Scientific
Rijksuniversiteit Groningen

Oude Kijk in 't Jatstraat 26
9712 EK Groningen
Nederland

Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age
Adults (18-64 years)
Elderly (65 years and older)

Inclusion criteria

- Patients have suffered from a CVA
- Patients are older than 18 and are able to give informed consent
- Patients suffer from speech- and or language deficits due to the CVA
- Patients have a normal hearing or vision (glasses are allowed)
- Patients have Dutch as mothertongue (dialect is allowed)
- Patients are right-handed

Exclusion criteria

- Patients suffered from speech or language deficits before brain injury
- patients are older than 75
- patients suffer from severe attentional deficits

Study design

Design

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

Recruitment

NL

Recruitment status:	Pending
Start date (anticipated):	01-11-2008
Enrollment:	100
Type:	Anticipated

Ethics review

Approved WMO

Application type:	First submission
Review commission:	METC Universitair Medisch Centrum Groningen (Groningen)

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	NL24983.042.08