Pilot study: handwriting in children with Juvenile Idiopathic Arthritis (JIA)

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Ethical review	Approved WMO
Status	Recruitment stopped
Health condition type	Joint disorders
Study type	Observational non invasive

Summary

ID

NL-OMON33217

Source
ToetsingOnline

Brief title
Handwriting in JIA

Condition

- Joint disorders

Synonym
child rheumatism, JIA, Juvenile Idiapathic Arthritis

Research involving
Human

Sponsors and support

Primary sponsor: Jan van Breemen Instituut
Source(s) of monetary or material Support: Ministerie van OC&W

Intervention

Keyword: Hand, JIA, Writing

Outcome measures

Primary outcome

Swelling, tenderness and Range of motion (ROM) of the wrist and finger joints,

maximal isometric grip force.

Handwriting parameters: velocity, pen pressure, variability of letters.

Questionnaire: writing quality, speed, pain.

Children with JIA will be compared with control group.

Secondary outcome

no

Study description

Background summary

Juvenile Idiopathic Arthritis (JIA) is the most common form of arthritis in childhood. JIA is arthritis of unknown etiology that begins before the 16th birthday and persists for at least 6 weeks. The involvement of hand and wrist is common, effecting function and activities of daily living of the children. A frequently reported problem is handwriting.
Assessment of handwriting and hand function in children with JIA is a standard procedure in the rehabilitation setting. It contains subjective measurements (questionnaires) as well as objective ones (hand writing tests and hand function measurements). Nevertheless the nature of self reported limitations in handwriting is not completely clear. Furthermore, the relation of limitations in handwriting to kinematic handwriting parameters (velocity, variability of letters and pen pressure) as well as to body functions (pain, swelling) and to impairments (range of motion and strength) is not known.

Study objective

The aim of the study is to get insight in these mechanisms and thereby contributing to a clear understanding of the limitations in handwriting of children with JIA, which is necessary to develop optimal non-pharmacological treatment, including training and supplying with aids.
The research questions, that will be addressed, are:
(1) Which limitations in handwriting occur in children with JIA?
(2) What is the relationship of reported and observed limitations in handwriting?
(3) What is the relationship between hand functions and hand impairments (tenderness, swelling, limited range of motion and strength) and limitations in handwriting (reported and observed)?

Study design

The study is designed as a case-control study. Fifteen children with JIA and self reported handwriting difficulties will be examined once in the time and compared with 15 children in a healthy age and gender matched control group.

Study burden and risks

Data will be partly collected from the patient records and through measurements by the researcher. The measurement will take about 45 minutes, containing the following parts
(1) two test to assess speed and quality of handwriting,
(2) measurements of the grip force
(3) measurements of the range of motion
(4) assessing pain and swelling of the wrist and finger joints
(5) ten questions for child and parent of handwriting.

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age
Children (2-11 years)

Inclusion criteria

(1) diagnosis: JIA classified conforming the ILAR criteria (Petty et al., 2004),
(2) self reported handwriting difficulties
(3) at least one year of handwriting education
(4) attending a regular Dutch elementary school (aged 7 to 12 years)
(5) informed consent from parents and children,
(6) ability of the child to accomplish questionnaires
(7) a regular visit of the child for treatment in the JBI in the period of the assessment.

Exclusion criteria

uveitis or other not corrected visual problems

Study design

Design

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

Primary purpose: Treatment

Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	02-06-2009
Enrollment:	30
Type:	Actual

Ethics review

Approved WMO

Date:	12-05-2009
Application type:	First submission
Review commission:	METC Slotervaartziekenhuis en Reade (Amsterdam)

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	NL27418.048.09