Clinical and molecular characterization of Helsmoortel – Van der Aa syndrome

Parent information form

Autism is a frequent disorder, and genetics play an important role in the majority of cases. The genetic code is stored in the DNA (deoxyribose nucleic acid) in our cells. Part of the DNA encodes genes, carriers of our individual characteristics. DNA is present in the form of long molecules that are organized into pieces called chromosomes. A change in the composition of the DNA is called a mutation.

In this project, we will study children with Helsmoortel – Van der Aa syndrome (OMIM 615873), which is caused by mutations in a single gene called ADNP. The purpose of this study is to better understand this subtype of autism. Although this study will likely not result in a direct personal advantage to the participant, increased knowledge of the characteristics of the syndrome may improve treatment of the disorder for future patients.

This project has been presented to you by the treating physician of your child. A clinical examination, eventually combined with IQ-testing, behavioral testing, or assessment of the movement pattern (gait analysis) can be carried out or have already been carried out. The provided medical data, including medical imaging and pictures, will be used for clinical characterization of the syndrome. Furthermore, a sample of blood will be taken from your child or from you, the parents. Upon agreement, the doctor will also perform a skin biopsy, which is the removal of a little piece of skin under local anesthetics for the purpose of further examination in the laboratory. These investigations cause a slight discomfort. Additionally, under your approval, you may be asked to give other tissues, such as hair, small pieces of nails, milk teeth spontaneously fallen out, stool samples, or cheek cells from inside your child's or your mouth collected by buccal swab.

The pictures of your child will be collected as a part of an AI-based diagnostic tool that identifies patterns related to the syndrome based on physical characteristics and symptoms. This tool can be used to make predictions about the progression of Helsmoortel-Van der Aa syndrome.
The medical imaging of the brain will be obtained and used for further research on brain development and the progression of the syndrome. The stool sample is used to examine the microbiome, which is made up of the bacteria that naturally present in the human digestive system and it plays a vital role in maintaining healthy bowel function.
DNA will be taken out of the blood, to confirm the presence of the mutation. Cells called lymphoblasts (a type of white blood cells) will be grown to a cell line (i.e. a collection of identical cells), with the aim of carrying out further investigations in the laboratory.

Cells called fibroblasts will be extracted from the skin biopsy. These cells can be transformed into virtually all cell types of the body, in order to study the effect of the mutation at the cellular level in different tissues and investigate the effects of a possible therapy.

Frank Kooy, PhD
Anke Van Dijck, MD, PhD
Marije Meuwissen, MD, PhD
Ana Jansen, MD, PhD

Center of Medical Genetics, Antwerp University Hospital
Prins Boudewijnlaan 43/6, 2650 Edegem (Belgium)

Tel. +32 3 275 97 56
adnp-nd@uantwerpen.be

It is possible that samples will be sent for further analyses to our partners in the ERA-NET network, including Pasciuto Lab, VIB-UAntwerp Center for Molecular Neurology, Antwerp, Belgium; Department of Human Molecular, Genetics and Biochemistry, Sackler Faculty of Medicine, Tel Aviv, Israel; the Dipartimento di Oncologia Sperimentale, Istituto Europeo di Oncologia (IEO), Milan, Italy; and the Department of Genetics & Genome Biology, the Hospital for Sick Children, University of Toronto, Toronto, Canada, or to other laboratories.

The data collected during this project will be encoded and may be submitted to established repositories. The results and conclusions of the study will be presented at international meetings and in scientific journals. Data will be presented in anonymous and aggregated form. However, it cannot be excluded that publications will be shared by social and other media beyond the control of the scientific team.

The biological material provided will not be commercialized nor subjected to any for–profit use as such. However, the research centers involved in the present study maintain the right to patent any invention derived from or connected to the use of the biological material provided, in accordance with current established laws and regulations.

It is possible that during the analyses performed on your samples, findings emerge which, although unrelated to the Helsmoortel-Van der Aa syndrome and the present study, might be of medical relevance to you and/or members of your family. These are called incidental findings, and may regard: 1) Actionable conditions, i.e. conditions for which a treatment is currently available 2) non-actionable conditions, i.e. conditions for which no treatment is currently available. In the event of actionable incidental findings, and without guarantee as to the delivery of the information, you can be re-contacted by your attending physician.

You may withdraw your consent for the collection and processing of your data at any time. If your participation in the study is terminated prematurely, your original consent will allow the use of the data collected about you for the period during which you were included in the study.

Approval for this study has been obtained from the Ethics Committee of the Antwerp University Hospital, February 1, 2016.

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Informed Consent

Parents/ guardian of a minor / legally incapable adult:

Name patient : _____ Date of birth : _____

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Part only for patients, parent(s) or legal guardian(s):

Hereby I, undersigned (name and surname) _____ , confirm that I am informed about the study and that I have received a copy of the "information form" and "informed consent". I have read and understood the information. My physician has provided me with sufficient information about the content of the study. Moreover, I have had sufficient time to think about the information and to ask all the questions that I deemed important, to which I have received satisfying information.

- I give permission to the responsible investigators to collect the clinical data of my child and, if necessary, of myself as a parent. I will provide information on medical history, medication use and possible participation to other studies.

- My participation is entirely voluntary. It requires the signature of a document expressing my consent. Even after having signed this document, I can stop taking part by informing the investigator.

- I am aware that my decision not to take part or to stop taking part in the study will have no impact on the quality of my care or on my relationship with the investigator.

- I give permission to the responsible parties (Research Group of Cognitive Genetics at the University Hospital of Antwerp) to access the medical records of myself or my child. I have the right to ask the study physician which data is being collected about me or my child as part of this study and to review this personal data, and to request any necessary corrections. I agree to the collection, processing, and use of medical data as outlined in the patient information leaflet. This medical data will be handled with the utmost confidentiality. I am aware of the purpose for which this data is being collected, processed, and used within the framework of this study.

- I am aware that the collected data will be encoded and shared with other (foreign) laboratories within the framework of the study. Dr. Anke Van Dijck, responsible investigator, ensures the key to this code. The anonymity of my child will be guaranteed when results of the study are published.

- Insurance has been taken out by the associated hospital in case I should suffer any damage in connection with my participation in this clinical study.

- I will not incur any charges for the visits/consultations, examinations or treatments specific to

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this study. Travel costs, however, cannot be reimbursed.

- I may contact the investigator or a member of his/her team at any time should I need any additional information.

☐ I give permission to the responsible investigators to collect a blood sample (heparin) from my child.

☐ I give permission to the responsible investigators to use encoded pictures or medical images of my child for publication in scientific journals.

☐ I give permission to the responsible investigators to perform a skin biopsy in my child.

Signature:

Mother

Name: _____Date: _____

Signature:

Father

Name: _____Date: _____

Signature:

Legal guardian

Name: _____Date: _____

Signature:

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PART ASSIGNED FOR RESEARCH TEAM

I, undersigned, _____ , confirm that I have informed _____ (name of parent/legal guardian) and that he/she has given permission to take part into the study.

Date: _____

Signature:

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