Genetic screening in Parkinson*s disease patients to identify GBA1 mutation carriers for future clinical trials.

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To sequence the GBA1 gene in Parkinson*s disease patients to identify possible participants for a possible future phase 1 trial. The gene will be described as wildtype (WT) or containing a mutation (GBA+); with record of the specific mutation. To...

Ethical review	Approved WMO
Status	Recruiting
Health condition type	Movement disorders (incl parkinsonism)
Study type	Observational non invasive

Summary

ID

NL-OMON56348

Source
ToetsingOnline

Brief title
Genetic screening for GBA1

Condition

- Movement disorders (incl parkinsonism)

Synonym
Parkinson's disease

Research involving
Human

Sponsors and support

Primary sponsor: Vanqua Bio Inc.
Source(s) of monetary or material Support: Pharmaceutical company

Intervention

Keyword: GBA-1 Mutation, Genetic screening, Parkinson's, Patients

Outcome measures

Primary outcome

Sequence of the full GBA1 gene, classified as wildtype or mutated, with

specifications of the mutation

Secondary outcome

Not applicable

Study description

Background summary

Parkinson*s disease (PD) is a common neurodegenerative disease, present in 1-2% of individuals aged >= 65 years. The most common genetic risk factor for Parkinson*s disease is a heterozygous mutation in the GBA1 gene. In a previous study it was demonstrated that 15% of Parkinson*s disease patients in the Netherlands have a mutation in the GBA1 gene. GBA1 encodes for beta-glucocerebrosidase (GCase), a lysosomal enzyme that is responsible for the hydrolysis of the glucosylceramide to ceramide and glucose. A mutation in GBA1 causes lysosomal dysfunction and it is hypothesized that this eventually leads to accumulation of alpha synuclein which is the hallmark of PD. PD patients with a mutation in the GBA1 gene exhibit an earlier onset of disease and have an increased risk of cognitive decline but can otherwise not be differentiated from idiopathic PD patients based on phenotype.

For an upcoming Phase 1b trial investigating a potential disease modifying therapy in the form of a GCase activator (VQ101) developed by Vanqua Bio, we aim to identify potential study participants with a mutation in the GBA1 gene. To identify this group of PD patients, a large screening study will be conducted.

Study objective

To sequence the GBA1 gene in Parkinson*s disease patients to identify possible participants for a possible future phase 1 trial. The gene will be described as wildtype (WT) or containing a mutation (GBA+); with record of the specific

mutation.

To store DNA, obtained from a saliva sample, for possible further assessments of genes related to Parkinson*s disease in the future. (DNA is only stored if participant consents to optional storage)

Study design

The genetic screening for mutations in the GBA1 gene will be performed through saliva sampling. Samples will be taken by Parkinson*s disease patients at home with a saliva sampling kit that will be sent to them via mail by CHDR staff. Subjects will also receive a questionnaire composed of two questions (ethnicity, familial Parkinson's disease history).

Awareness for the study will be raised in collaboration with the treating neurologists of the PD patients and through advertisement by CHDR via (social) media.

If a patient contacts the CHDR and wishes to participate, an informed consent document will be provided via mail. Once a completed ICF is obtained by CHDR, the saliva kit and a questionnaire will be sent by CHDR to the patient. The saliva sample will be labelled with a subject specific code to ensure sample pseudonymization. Only CHDR has the code to link the saliva sample to the patient. Saliva samples will thereafter be sent to the laboratory of GenomeScan for sequencing. All patients will be informed on the result of the sequencing and offered further counselling if applicable. This counselling can be done either via CHDR or via the treating neurologist at the local hospital if preferred.

Study burden and risks

This study requires a saliva sampling and a questionnaire. The procedure for this is with a saliva sampling kit which can be performed at home. The kits can be returned by mail. The burden for patients is minimal and there are no risks associated with the procedure.

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

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

Inclusion criteria

1. Age 40-80 years of age at screening (inclusive).
2. All participants must understand and provide written informed consent prior to any study-specific procedures
3. Able to speak, read, and understand study procedures in Dutch sufficiently to allow completion of all study assessments.
4. Patient-reported clinical diagnosis of Parkinson*s disease by a neurologist within the last 10 years.

Exclusion criteria

1. Known non-GBA-1 mutation for Parkinson*s disease

Study design

Design

Study type: Observational non invasive

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

Recruitment

NL

Recruitment status:	Recruiting
Start date (anticipated):	08-11-2023
Enrollment:	1000
Type:	Actual

Ethics review

Approved WMO

Date:	02-11-2023
Application type:	First submission
Review commission:	BEBO: Stichting Beoordeling Ethiek Bio-Medisch Onderzoek (Assen)

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	NL85000.056.23