Body composition in patients with Huntington's disease

Published: 14-09-2009
Last updated: 04-05-2024

The aim of the study is to answer the following questions:1: Is there a difference in body composition between patients with HD and matched controls?2: Does HD affect body composition differently in men and women? 3: Are changes in body composition...

Ethical review	Approved WMO
Status	Pending
Health condition type	Structural brain disorders
Study type	Observational non invasive

Summary

ID

NL-OMON33451

Source
ToetsingOnline

Brief title
Body composition in patients with Huntington's disease

Condition

- Structural brain disorders

Synonym
Huntington's disease

Research involving
Human

Sponsors and support

Primary sponsor: Leids Universitair Medisch Centrum
Source(s) of monetary or material Support: Ministerie van OC&W

Intervention

Keyword: body composition, Huntington's disease, weight loss

Outcome measures

Primary outcome

Percentage fat and lean body mass

Secondary outcome

body mass index

Unified Huntington's Disease Rating Scale score

Study description

Background summary

Huntington*s disease (HD) is a severe neurodegenerative disorder with an autosomal dominant mode of inheritance. Characteristic features of the disease are unwanted choreatic movements, cognitive decline and behavioural disturbances. Another common feature of HD is unintended weight loss, the cause of which is not yet elucidated. Pilot studies measuring body composition in HD patients have suggested loss of adipose tissue stores in HD. However, these reports did not investigate the change in body composition at different stages of the disease, or did not incorporate data on healthy subjects for comparison. The aim of the present study aim is to evaluate body composition in patients with HD at different stages of the disease in comparison to healthy controls in order to assess whether these patients have lower fat mass, lean body mass or both. Moreover, as CAG repeat expansion size was recently shown to be associated with weight loss, we will assess whether CAG repeat expansion size is also related to body composition. Body composition will be assessed using bioelectrical impedance analysis. The expectations are that HD patients will have lower fat mass compared with matched healthy control subjects, and that this difference will be greater for men than for women. Furthermore, patients in a more advanced stage of the disease will have lower fat mass than patients in a less advanced stage of the disease, and a higher CAG repeat length will correlate with lower fat mass.

Study objective

The aim of the study is to answer the following questions:

1: Is there a difference in body composition between patients with HD and matched controls?
2: Does HD affect body composition differently in men and women?
3: Are changes in body composition in HD patients associated with disease stage?
4: Is CAG repeat length associated with fat- and lean muscle mass?

Study design

Observational study

Study burden and risks

The burden and risks for participants are negligible. The measurements will only be performed once and the total session will take less than 40 minutes. Bioelectrical Impedance Analysis (BIA) is a harmless and non-invasive method. Subjects are requested to lie down in bed, than four electrodes are attached to hands and feet. The BIA than sends a very weak electrical signal through the body. Subsequently, from the electrical resistance which the signal encounters, the fat percentage can be deduced. The BIA measurement only lasts a few seconds and the subject will not sense the signal in any respect.

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

Patients with Huntington's disease

Exclusion criteria

subjects with pacemakers

Study design

Design

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

Primary purpose: Basic science

Recruitment

NL

Recruitment status:	Pending
Start date (anticipated):	10-08-2009
Enrollment:	92
Type:	Anticipated

Ethics review

Approved WMO
Date: 14-09-2009

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

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	NL28917.058.09