

# Metabolic effects of deep brain stimulation in patients with obsessive compulsive disorder.

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Deep brain stimulation influences the HPA axis and glucose- and lipid metabolism in patients with obsessive compulsive disorder (OCD).

|                             |                       |
|-----------------------------|-----------------------|
| <b>Ethische beoordeling</b> | Positief advies       |
| <b>Status</b>               | Werving gestart       |
| <b>Type aandoening</b>      | -                     |
| <b>Onderzoekstype</b>       | Interventie onderzoek |

## Samenvatting

### ID

NL-OMON26928

### Bron

Nationaal Trial Register

### Verkorte titel

DBS-OCD

### Aandoening

- Diabetes Mellitus type II (DMII)
- obsessive compulsive disorder (OCD)/obsessief compulsieve stoornis
- insulin resistance/insuline resistentie

## Ondersteuning

**Primaire sponsor:** Academic Medical Center (AMC), department of Endocrinology and Metabolism and Department of Psychiatry.

**Overige ondersteuning:** Academic Medical Center (AMC), department of Endocrinology and Metabolism and Department of Psychiatry.

## Onderzoeksproduct en/of interventie

## **Uitkomstmaten**

### **Primaire uitkomstmaten**

1. HPS axis activity;<br>
2. Endogenous glucose production.

## **Toelichting onderzoek**

### **Achtergrond van het onderzoek**

Central regulation of glucose- and lipid metabolism is an area of research in the field of obesity and insulin. Especially the nucleus accumbens has become an area of interest, because of its involvement in food intake, satiety and energy expenditure. It has been shown that dopamine metabolism in the mesoaccumbens system may be altered in obesity with contradictory results showing either reduced or increased dopamine signaling. The procedure of DBS in the nucleus accumbens provides an exceptional opportunity to gain insight in the role of the nucleus accumbens in these metabolic processes.

We will perform a hyperinsulinemic euglycemic clamp with stable isotopes in the off and on situation, to measure glucose- and lipid metabolism and use plasma ACTH and urine cortisol levels to measure HPA axis activity.

### **Doel van het onderzoek**

Deep brain stimulation influences the HPA axis and glucose- and lipid metabolism in patients with obsessive compulsive disorder (OCD).

### **Onderzoeksopzet**

N/A

### **Onderzoeksproduct en/of interventie**

Hyperinsulinemic euglycemic clamp with stable isotopes.

## **Contactpersonen**

## Publiek

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## Wetenschappelijk

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## Deelname eisen

### Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

Patients with OCD with deep brain stimulation in the nucleus accumbens.

### Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

1. Use of psychotropic drugs;
2. Use of drugs or abuse;
3. Pregnancy;

4. Use of medication known to interfere with glucose or lipid metabolism;
5. DMII or impaired fasting glucose;
6. Primary lipid disorder;
7. Performance of vigorous exercise;
8. Renal insufficiency or elevated liver enzymes.

## Onderzoeksopzet

### Opzet

|                  |                        |
|------------------|------------------------|
| Type:            | Interventie onderzoek  |
| Onderzoeksmodel: | Cross-over             |
| Toewijzing:      | Gerandomiseerd         |
| Blinding:        | Dubbelblind            |
| Controle:        | Actieve controle groep |

### Deelname

|                         |                      |
|-------------------------|----------------------|
| Nederland               |                      |
| Status:                 | Werving gestart      |
| (Verwachte) startdatum: | 10-01-2009           |
| Aantal proefpersonen:   | 16                   |
| Type:                   | Verwachte startdatum |

## Ethische beoordeling

|                 |                  |
|-----------------|------------------|
| Positief advies |                  |
| Datum:          | 10-09-2009       |
| Soort:          | Eerste indiening |

## Registraties

## Opgevolgd door onderstaande (mogelijk meer actuele) registratie

Geen registraties gevonden.

## Andere (mogelijk minder actuele) registraties in dit register

Geen registraties gevonden.

## In overige registers

| Register       | ID                                        |
|----------------|-------------------------------------------|
| NTR-new        | NL1886                                    |
| NTR-old        | NTR2000                                   |
| Ander register | METC Academic medical center : MEC 08/276 |
| ISRCTN         | ISRCTN wordt niet meer aangevraagd.       |

## Resultaten

### Samenvatting resultaten

N/A