Effect of different antipsychotic medications on craving and craving related brain activity in patients with schizophrenia and cannabis abuse or dependence: a randomized controlled study comparing clozapine and risperidone.

Gepubliceerd: 16-04-2009 Laatst bijgewerkt: 15-05-2024

That clozapine treatment compared to risperidone treatment is associated with a significant reduction in subjective craving and in a lower activity of the different functional craving pathways and their associated brain activity patterns.

Ethische beoordeling	Positief advies
Status	Werving gestart
Type aandoening	-
Onderzoekstype	Interventie onderzoek

Samenvatting

ID

NL-OMON21257

Bron
Nationaal Trial Register

Verkorte titel
fmri.clo.ris.can

Aandoening

Schizophrenia, cannabis, risperidone, clozapine, fMRI

Schizofrenie, cannabis, risperidon, clozapine, fMRI

Ondersteuning

Primaire sponsor: L. de Haan
Overige ondersteuning: ZonMW

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

Differences between the treatment conditions in pre-post treatment changes in craving related brain activity are the primary outcome measure.

Toelichting onderzoek

Achtergrond van het onderzoek

Cannabis abuse and dependence in patients with schizophrenia occurs frequently and is associated with adverse outcomes. Craving is regarded as a central phenomenon that contributes to the continuation of cannabis use and to relapse after a period of abstinence. Antipsychotic medications with high affinity for the dopamine D2 receptor have been found to increase craving. Clozapine, with its low affinity for the dopamine D2 receptor, is associated with reduced substance use. However, firm evidence for clozapine’s superiority is lacking.

Objective:
To test the hypothesis that clozapine treatment compared to risperidone treatment is associated with differences in functional craving and the associated brain activity patterns related to reduction in subjective craving.

Study design:
A randomized controlled trial comparing the effect of clozapine and risperidone on cannabis craving in cannabis abusing or dependent patients with schizophrenia. Specific cognitive tasks will be used to test craving pathways and associated brain activities are assessed with functional MRI.

Study population:
Eligible for the study are male in- and outpatients age 18 to 30, meeting DSM-IV criteria for schizophrenia, schizoaffective - or schizophreniform disorder and cannabis abuse or dependence based on the Structured Clinical Interview for the Diagnostic and Statistical Manual of Mental Disorders (SCID-P).

Intervention:
Patients will be randomly allocated to receive clozapine or risperidone.

Main study parameters/endpoints:
Differences in pre-post treatment changes in brain activation are the primary outcome measure. [At baseline, before the first dose of the study medication and after 4 weeks treatment, craving related brain activity will be assessed using specific fMRI craving paradigms.]

Doel van het onderzoek

That clozapine treatment compared to risperidone treatment is associated with a significant reduction in subjective craving and in a lower activity of the different functional craving pathways and their associated brain activity patterns.

Onderzoeksopzet

Baseline and after 4 weeks of medication.

Onderzoeksproduct en/of interventie

Patients will be randomly allocated to receive clozapine or risperidone. One extra session is needed to inform patients on the study design and procedure. Two extra sessions are needed to assess baseline and outcome data. Two fMRI scanning sessions are needed during which specific tests will be administered. Duration of first fMRI scanning session is 38 minutes. Duration of second fMRI session is 32 minutes. Task difficulty of these tests will be set such that each participant will succeed on approximately 66% of his or her target responses. Scanning procedures may induce some burden because participants need to refrain from movements. To diminish the burden from the noise from the scanner, earplugs are used. Use of cannabis is prohibited in the three days before scanning. Three hours before scanning participants are not allowed to smoke cigarettes. One cup of coffee is allowed in the morning before scanning. Urine drug screen will be taken. Before the second fMRI scan blood level of risperidone or clozapine will be taken. Risk: There is a risk on adverse effects related to the treatment with clozapine or risperidone. Careful clinical procedures will be performed to detect adverse effects and respond to them as needed. There are no known risks related to fMRI scanning.

Contactpersonen

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Wetenschappelijk

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Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

1. Diverse ethnicity;

2. Meeting DSM-IV criteria for schizophrenia, schizoaffective - or schizophreniform disorder and cannabis abuse or dependence based on the Structured Clinical Interview for the Diagnostic and Statistical Manual of Mental Disorders (SCID-P);

3. Women will not be included because co-morbid cannabis abuse or dependence occurs more frequent in men and the expected number of included subjects, therefore, would not allow separate analysis;

4. We will also include schizophrenia patients without cannabis abuse or dependence and compare their outcomes with those of patients with co-occurring cannabis abuse or dependence;

5. A group of healthy, matched controls will be included to get information on brain activation patterns associated with specific cognitive tasks in antipsychotic-naïve healthy controls. These controls are included to make a comparison with patients with schizophrenia who have been treated with antipsychotics for 4 weeks;

6. All patients need to be abstinent for cannabis use minimally three days before assessment of functional craving pathways.

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

1. Known hypersensitivity to any ingredient of clozapine or risperidone;

2. Concomitant use of any antipsychotic drug other than clozapine or risperidone;

3. Use of depot antipsychotics in the three months prior to inclusion;

4. Use of psychotropic medications other than oxazepam or biperiden;

5. Narrow angle glaucoma;

6. Known neurological or endocrine disease;

7. Presence of non-removable metal objects;

8. Myeloproliferative disorders;

9. Unstable epilepsy;

10. Agranulocytosis or leucopenia in the past;

11. Current leukocyte level is lower than 3.5 x 109/l, current neutrophilic granulocyte level is lower than 2.0x 109/l.

Onderzoeksopzet

Opzet

Type:	Interventie onderzoek
Onderzoeksmodel:	Parallel
Toewijzing:	Gerandomiseerd
Blindering:	Open / niet geblindeerd
Controle:	Actieve controle groep

Deelname

Nederland
Status: Werving gestart

(Verwachte) startdatum:	27-04-2009
Aantal proefpersonen:	50
Type:	Verwachte startdatum

Ethische beoordeling

Positief advies

Datum:	16-04-2009
Soort:	Eerste indiening

Registraties

Opgevolgd door onderstaande (mogelijk meer actuele) registratie

ID: 32193
Bron: ToetsingOnline
Titel:

Andere (mogelijk minder actuele) registraties in dit register

Geen registraties gevonden.

In overige registers

Register	ID
NTR-new	NL1662
NTR-old	NTR1761
CCMO	NL22828.018.08
ISRCTN	ISRCTN wordt niet meer aangevraagd
OMON	NL-OMON32193

Resultaten

Samenvatting resultaten
N/A