Migration, psychosis and immune activation

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To investigate if persistent pro-inflammatory changes in monocytes and T-cells are associated with exposure to migration early in life, and if these changes mediate the relationship between migration and schizophrenia.

Ethical review	Approved WMO
Status	Pending
Health condition type	Schizophrenia and other psychotic disorders
Study type	Observational non invasive

Summary

ID

NL-OMON35853

Source
ToetsingOnline

Brief title
Migration, psychosis and immune activation

Condition

- Schizophrenia and other psychotic disorders

Synonym
psychosis, schizophrenia

Research involving
Human

Sponsors and support

Primary sponsor: Erasmus MC, Universitair Medisch Centrum Rotterdam
Source(s) of monetary or material Support: EU-FP7-HEALTH-Moodinflame 222963

Intervention

Keyword: ethnic minorities, immune response, migration, psychosis

Outcome measures

Primary outcome

Mean level of mRNA in monocytes and intracellular cytokines in T-cells.

Secondary outcome

Not applicable.

Study description

Background summary

The risk for schizophrenia is increased in several migrant groups for both first and second generation immigrants. Research has shown that the risk is increased compared to native Dutch for immigrants from Suriname (first generation RR 2.6 95% BI 1.7-4.0, second generation RR 2.9 [1.6-5.0]), the Netherlands Antilles (RR 1.9 [0.8-4.6], 1.4 [0.2-10.4]) , Turkey (RR 1.4 [0.7-2.6]), 2.3 [1.0-5.4]) and Morocco (RR 2.3 [1.7-3.0], 2.5 [1.7-3.7]). For first generation migrants, the risk for schizophrenia was particularly increased for those migrants who migrated early in life (0-4 years). This finding suggests that early childhood is an important period for determining vulnerability for this disorder.
To date, biological mechanisms underlying this increased risk have not been identified. One possibility is that early migration leads to immune activation. A pro-inflammatory state of immune cells has been associated with schizophrenia in previous studies. A chronic increased immune activation may be one of the mechanisms explaining the relationship between migration and schizophrenia.

Study objective

To investigate if persistent pro-inflammatory changes in monocytes and T-cells are associated with exposure to migration early in life, and if these changes mediate the relationship between migration and schizophrenia.

Study design

Case control study. Activation of monocytes and T-cells is compared between immigrants with schizophrenia, immigrants without schizophrenia, Dutch

schizophrenia patients en Dutch participants without schizophrenia. Fifty mls of blood will be collected in all participants. Using quantitative PCR and FACS analysis respetively, mRNA in monocytes and intracellular cytokines in T-cells is measured. Migration history, other life events and (early) psychosocial stress is assessed with self-report questionnaires. Mean level of mRNA and cytokines is compared between groups, adjusted for medication use and other experiences of stress.

Study burden and risks

There is one assessment, involving (extra) blood drawing of 50 ml and completing of questionnaires.

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:
Group 1. 15 participants, born in or born from parents born in Morocco, Turkey, Surinam or the Netherlands Antilles, age at migration < 5 years for first generation immigrants, current age 18-40, diagnosis of DSM IV schizophrenia, schizoaffective disorder or schizophreniform disorder, use of antipsychotic medication for less than two years.
Group 2. Contrast patients: 15 participants, born in the Netherlands and both parents born in the Netherlands, other inclusion criteria as in group 1.;Controls:
Exposed controls: 15 participants, born in or born from parents born in Morocco, Turkey, Surinam or the Netherlands Antilles, age at migration < 5 years for first generation immigrants, current age 18-40, no history of psychotic disorder. Unexposed controls: 15 participants, born in the Netherlands and both parents born in the Netherlands, age 18-40, no history of psychotic disorder.

Exclusion criteria

Patients:
Diagnosis of DSM IV substance induced psychotic disorder, mood disorder with psychotic features, delusional disorder, psychotic disorder NOS or psychotic disorder due to a somatic condition; IQ lower than 70.;Controls:
History of psychotic disorder; IQ lower than 70.

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):	01-09-2011
Enrollment:	60

Type:	Anticipated

Ethics review

Approved WMO Date:	22-02-2012
Application type:	First submission
Review commission:	METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)

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	NL36416.078.11