Triple X syndrome in adults: cognitive, psychiatric and neuroanatomical profile

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Description of cognitive, psychiatric and neuroanatomical profile in adult women with triple X syndrome compared with a group of healthy controls on average of the same age and of the same IQ. IQ is considered as a potential confounder and treated...

Ethical review	Approved WMO
Status	Recruitment stopped
Health condition type	Chromosomal abnormalities, gene alterations and gene variants
Study type	Observational non invasive

Summary

ID

NL-OMON44845

Source
ToetsingOnline

Brief title
Adults & triple X syndrome

Condition

- Chromosomal abnormalities, gene alterations and gene variants
- Developmental disorders NEC

Synonym
47, triple X syndrome is the lay and professional phrase, trisomy X, XXX are synonymous

Research involving
Human

Sponsors and support

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

Intervention

Keyword: adults, neuropsychology, psychiatry, triple X syndrome

Outcome measures

Primary outcome

Cognitive and psychiatric profile in adults with triple X syndrome.

Secondary outcome

Neuroanatomical profile in adults with triple X syndrome.

Study description

Background summary

Triple X syndrome is a genetic syndrome occurring once in every 1000 females and is characterized by the presence of an extra X chromosome. It is diagnosed through prenatal or postnatal karyotyping. Girls with this syndrome develop without major developmental disabilities, although they suffer from mild delayed development especially in expressive language and they have problems in forming stable interpersonal relationships. Adults may either suffer from social communication deficits. The Full Scale Intelligence Quotient (FSIQ) is 15-20 points lower than expected within the family, however usually still within the normal range. Psychotic illness is more prevalent in triple X adult women than in controls: the prevalence of triple X is 5 times higher in patients with psychotic disorders compared to the general population.
Two neuroimaging studies in adults with triple X syndrome revealed lower total brain volume compared to controls.
Studies on cognitive and psychiatric functioning of adults with triple X syndrome are lacking.

Study objective

Description of cognitive, psychiatric and neuroanatomical profile in adult women with triple X syndrome compared with a group of healthy controls on average of the same age and of the same IQ. IQ is considered as a potential confounder and treated as such in data-analysis.

Study design

The study design concerns a cross-sectional study.

Study burden and risks

Questionnaires (one hour), Wechsler-adult-intelligence-scale- III-Netherlands (WAIS-III-NL) test of intelligence (one hour), a CANTAB session (one hour), which is a computerised, predominantly non-linguistic test of neuropsychological functioning, and a systematic psychiatric examination (one hour) through MINI-International Neuropsychiatric Interview (MINI). MRI brain session (one hour).

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

In order to be eligible to participate in this study, a subject must meet all of the following

criteria:
- Cases have a 47,XXX karyotype or a mosaic 46,XX/47,XXX with at least 85% cells with an extra X chromosome, healthy controls have a 46,XX karyotype.
- Age above 18 years.
- Being capable and competent of giving informed consent.
- Sufficient language skills in Dutch.

Exclusion criteria

A potential subject (cases and healthy controls) who meets any of the following criteria will be excluded from participation in this study:
- Pregnancy for the potential risk during MRI procedures.
- Being under legal guardianship.
- Contra indications for undergoing an MRI study (having brain aneurysm clips, certain types of artificial heart valves, heart defibrillator or pacemaker, inner ear (cochlear) implants, artificial joints, vascular stents or when worked with sheet metal in the past.

Study design

Design

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

Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	08-12-2015
Enrollment:	78
Type:	Actual

Ethics review

Approved WMO Date:	11-05-2015
Application type:	First submission
Review commission:	METC academisch ziekenhuis Maastricht/Universiteit Maastricht, METC azM/UM (Maastricht)
Approved WMO Date:	10-01-2018
Application type:	Amendment
Review commission:	METC academisch ziekenhuis Maastricht/Universiteit Maastricht, METC azM/UM (Maastricht)

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	NL46871.068.14