The association of paternal factors with recurrent pregnancy loss; REMI III study

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Ethical review	Approved WMO
Status	Recruiting
Health condition type	Pregnancy, labour, delivery and postpartum conditions
Study type	Observational invasive

Summary

ID

NL-OMON49845

Source
ToetsingOnline

Brief title
REMI III study

Condition

- Pregnancy, labour, delivery and postpartum conditions

Synonym
habitual abortion, Recurrent miscarriages

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: Paternal factors, Recurrent pregnancy loss, Sperm apoptosis, Sperm immunomodulatory factors

Outcome measures

Primary outcome

Primary exposure of case control study: paternal age

Primary outcome of cohort study: the development of live birth within 5 years after initial visit of the recurrent miscarriage clinic

Secondary outcome

Secondary exposures of case control study: BMI, smoking, physical exercise, sperma apoptose, immunomodulatory factors in peripheral blood and seminal plasma (cytokines)

Secondary outcomes of cohort study: development of ongoing pregnancy (>24 weeks), time interval until next pregnancy, development of pregnancy complications such as growth restriction, pre term delivery and pre eclampsia

Study description

Background summary

Recurrent spontaneous miscarriages (RSM), or in international guidelines termed recurrent pregnancy loss (RPL), is defined as 2 or more spontaneous miscarriages. It affects 3% of all fertile couples and only in 50% an underlying cause may be identified. An essential part of the management of couples with RPL is to give trusthworthy advice on the prognosis of the next pregnancy. The main limitation in current prognostic studies however is the lack of adjustment for relevant risk factors, disabling the possibility of

individual risk estimation. Currently, there is hardly any focus on paternal factors, that could potentially contribute to the development of RPL. At the moment, male eveluation of patients with RPL only consists of a karyotype and studies focusing on male factors in RPL are scarce.

Study objective

In this project we hypothesize that recurrent pregnancy miscarriages is an issue stemming from both the female as the male. The overall aim is to elucidate paternal factors associated with RPL (A) and to assess the predictive value of these factors on a successful outcome of a next pregnancy (B).

Study design

The project will be performed as a multicenter hospital-based case-control study (A) and retrospective and prospective cohort study of couples attending the recurrent miscarriage unit (B).

Study burden and risks

No experimental medication will be used. Women will be treated according to local hospital protocol, both at the recurrent miscarriage outpatient clinic and the regular obstetric outpatient clinic. No additional risks or burden are expected from the study, except for a one-time blood collection of participating men (risk of discomfort, hematoma). No additional hospital visits are required. We estimate the electronic questionnaire to be little burdensome. For the group of patients with repeated miscarriages, some questions (about obstetrical history) might be confrontational. Those questions are, however, also a standard part of a consultation in the recurrent miscarriages outpatient clinic.

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

Couples with unexplained recurrent pregnancy loss (defined according to the ESHRE 2017 guideline) who visit the recurrent pregnancy loss clinic in the Leiden University Medical Center (LUMC) or Erasmus Medical Center (EMC) are included.

Exclusion criteria

Exclusion criteria are
1. Known causes for RPL(parental chromosomal abnormalities, uterine anomalies, acquired thrombophilia, thyroid autoimmunity)
2. Mentally or legally incapability
3. Pregnancy after oocyte- embryo or spermatozoa donation
4. Loss of < 2 pregnancies in current relationship

Study design

Design

Study type:	Observational invasive
Intervention model:	Other

Allocation:	Non-randomized controlled trial
Masking:	Open (masking not used)
Control:	Active
Primary purpose:	Basic science

Recruitment

NL

Recruitment status:	Recruiting
Start date (anticipated):	12-06-2019
Enrollment:	270
Type:	Actual

Ethics review

Approved WMO

Date:	08-04-2019
Application type:	First submission
Review commission:	METC Leiden-Den Haag-Delft (Leiden) metc-ldd@lumc.nl

Approved WMO

Date:	17-02-2020
Application type:	Amendment
Review commission:	METC Leiden-Den Haag-Delft (Leiden) metc-ldd@lumc.nl

Approved WMO

Date:	24-02-2022
Application type:	Amendment
Review commission:	METC Leiden-Den Haag-Delft (Leiden) metc-ldd@lumc.nl

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	NL66917.058.19
Other	NL7762 (Netherlands Trial Register)