The fate of aneuploid blastomeres.

Published: 28-06-2010
Last updated: 30-04-2024

To find out the fate of aneuploid blastomeres

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

Summary

ID

NL-OMON34576

Source
ToetsingOnline

Brief title
The fate of aneuploid blastomeres

Condition

- Chromosomal abnormalities, gene alterations and gene variants

Synonym
aneuploidies, numerical chromosome abberations

Research involving
(Surplus) Embryos

Sponsors and support

Primary sponsor: Academisch Medisch Centrum
Source(s) of monetary or material Support: Ministerie van OC&W

Intervention

Keyword: aneuploidy, embryology, in vitro fertilization, preimplantation

Outcome measures

Primary outcome

The fate of aneuploid blastomeres

Secondary outcome

Endpoints of this study are the difference in cleavage rate, location and

transcriptome profile between euploid and aneuploid blastomeres within human

preimplantation embryos.

Study description

Background summary

The majority (78%) of human preimplantation embryos analyzed after in vitro fertilization contain aneuploidies i.e. numerical chromosomal abnormalities. Fifty-nine percent of human preimplantation embryos analyzed after in vitro fertilization consist of both normal and aneuploid blastomeres. In contrast, aneuploid rates in human fetuses and live births are extremely low, <3% and 0.6% respectively. This suggests that there is a selection against or correction of aneuploid blastomeres during development. This study aims to investigate the fate of aneuploid blastomeres within human preimplantation embryos and the mechanisms that lead to decreased aneuploid rates further in development.

Study objective

To find out the fate of aneuploid blastomeres

Study design

Observational study

Study burden and risks

Only left over, cryopreserved embryos are used for this study. These embryos would be otherwise discarded. The couples that donated these embryos have already finished their treatment or fulfilled their childbearing wish. The couples have already given written consent for the use of their left over and

cryopreserved embryos for research purposes. No additional involvement is required for the couples therefore no burden, risk or benefit is associated with this study.

Contacts

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Academisch Medisch Centrum

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

Inclusion criteria

All left over, cryopreserved embryos that were donated with written consent from patients that underwent an IVF/ICSI treatment at the Academic Medical Center (AMC) that survive the thawing procedure.

Exclusion criteria

NA

Study design

Design

Study type: Observational non invasive

Masking:	Open (masking not used)
Control:	Uncontrolled
Primary purpose:	Basic science

Recruitment

NL

Recruitment status:	Recruiting
Start date (anticipated):	01-01-2011
Enrollment:	125
Type:	Actual

Ethics review

Approved WMO

Date:	28-06-2010
Application type:	First submission
Review commission:	CCMO: Centrale Commissie Mensgebonden Onderzoek (Den Haag)

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	NL32157.000.10