Effect of IVF culture medium on health of IVF children

Gepubliceerd: 22-10-2013 Laatst bijgewerkt: 19-03-2025

IVF culture medium affects parameters of metabolic syndrome at childhood stage

Ethische beoordeling	Niet van toepassing
Status	Werving gestopt
Type aandoening	-
Onderzoekstype	-

Samenvatting

ID

NL-OMON27714

Bron
Nationaal Trial Register

Verkorte titel
MEDIUM-KIDS

Aandoening

In vitro fertilization (IVF)
Culture medium / Kweek medium
Cardiometabolic health / cardiometabole gezondheid
Growth / groei

Ondersteuning

Primaire sponsor: Academic hospital Maastricht
Overige ondersteuning: March of Dimes

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

Length, height, skinfold thickness, blood pressure, endothelial function, lipid profile in blood,

cortisol level

Toelichting onderzoek

Achtergrond van het onderzoek

From animal studies it is known that embryo culture leads to growth, behavioural and cardio-metabolic alterations in the offspring. Embryo culture effects on human offspring have long been uninvestigated, until a few years ago when we found that the medium used to culture embryos in an IVF treatment has a significant effect on the incidence of low birth weight (LBW) and on birth weight. As this was the first randomized trial on embryo culture effects in human, nothing is known about health effects at later stages of development. Since a lower birth weight is related to an increased risk for (adult) chronic diseases belonging to metabolic syndrome (Barker theory), our findings raise concern for the IVF progeny. In advance of diseases at adult age, we hypothesize that IVF culture medium affects parameters of metabolic syndrome at childhood stage.

Doel van het onderzoek

IVF culture medium affects parameters of metabolic syndrome at childhood stage

Onderzoeksopzet

All children will be investigated at the age of 9 years old.

Onderzoeksproduct en/of interventie

The children in the IVF group are born after, as an embryo, being cultured in two different commercially available culture media. The two groups will be mutually compared as well as with a control group consisting of children that were conceived naturally.

Contactpersonen

Publiek

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Wetenschappelijk

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Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

IVF group: born after an IVF treatment at the MUMC applied in the period July 2003 – December 2006

CONTROL: 9 years old, singleton

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

IVF group: Born after preimplantation genetic diagnosis (PGD)

CONTROL1:conceived by any form of assisted reproduction

CONTROL 2:having a disorder that affects lipid profile or glucose metabolism

Onderzoeksopzet

Opzet

Onderzoeksmodel: Anders

Controle: N.v.t. / onbekend

Deelname

Nederland

Status:	Werving gestopt
(Verwachte) startdatum:	15-11-2013
Aantal proefpersonen:	731
Type:	Werkelijke startdatum

Ethische beoordeling

Niet van toepassing

Soort:	Niet van toepassing

Registraties

Opgevolgd door onderstaande (mogelijk meer actuele) registratie

ID: 44948
Bron: ToetsingOnline
Titel:

Andere (mogelijk minder actuele) registraties in dit register

Geen registraties gevonden.

In overige registers

Register	ID
NTR-new	NL4083
NTR-old	NTR4220
CCMO	NL45845.068.13
ISRCTN	ISRCTN wordt niet meer aangevraagd.
OMON	NL-OMON44948

Resultaten

Samenvatting resultaten
N/A