LINC-study: LInking EDCs in maternal Nutrition and Child health.

Gepubliceerd: 08-12-2010 Laatst bijgewerkt: 18-08-2022

It is hypothesized that increased prenatal exposure to Endocrine Disrupting Chemicals (EDCs) is related to an increased risk of obesity later in life.

Ethische beoordeling	Positief advies
Status	Werving nog niet gestart
Type aandoening	-
Onderzoekstype	Observationeel onderzoek, zonder invasieve metingen

Samenvatting

ID

NL-OMON26040

Bron
Nationaal Trial Register

Verkorte titel
LINC-study

Aandoening

Endocrine Disrupting Chemicals
Prenatal exposure
Prenatale blootstelling
Childhood obesity
Overgewicht op de kinderleeftijd

Ondersteuning

Primaire sponsor: VU University Amsterdam

European Union: KBBE-2B-227391
Overige ondersteuning: VU University Amsterdam

European Union: KBBE-2B-227391

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

The main study endpoint is BMI at the age of twelve months in relation to levels of exposure markers of EDCs in cord blood.

Toelichting onderzoek

Achtergrond van het onderzoek

Rationale:

Obesity prevalence is still increasing, which reflects the complexity of treatment. Emphasis is shifting towards prevention; however more knowledge is needed on the aetiology of obesity. A certain class of chemicals has the ability to mimic hormones, disturbing endocrine pathways. Animal studies have shown that prenatal exposure to some of these endocrine disrupting chemicals (EDCs) increases body weight in offspring. However, prospective studies in humans are lacking. It is hypothesized that increased prenatal exposure to EDCs is related to an increased risk of obesity later in life.

Objective:

To relate exposure markers of EDCs with effect biomarkers, health outcome data and other parameters via multiple regression and multivariate analysis, while taking into account relevant confounders and covariates.

Study design:

This project is embedded in a European multidisciplinary study in which four cohorts participate, in combination with results obtained from animal studies. The current project is designed as an observational cohort study.

Study population:

The cohort (N = 500) will be based on women living in the city of Zwolle. Women eligible for participation should be less than twelve weeks pregnant at their first visit to the midwifery clinic. They should be able to fill out Dutch questionnaires.

Main study parameters/endpoints:

The main study endpoint is BMI at the age of twelve months in relation to levels of exposure markers of EDCs in cord blood.

Study procedures:

Data will be primarily obtained from regular health care as it is provided for women and children (midwifery clinics and youth health care). Further data on maternal health topics, demographics, diet and exposure of mother and child will be collected by means of questionnaires and collection and analysis of cord blood.

Analysis:

Exposure variables will be categorized in tertiles and it will be tested whether BMI differs significantly between these tertiles. Stepwise regression will be used to quantify the relation between BMI and exposure. Predefined models will be tested which include important covariates.

Doel van het onderzoek

It is hypothesized that increased prenatal exposure to Endocrine Disrupting Chemicals (EDCs) is related to an increased risk of obesity later in life.

Onderzoeksopzet

Birth, six months and twelve months.

Onderzoeksproduct en/of interventie

No intervention is planned as this is an observational study.

Contactpersonen

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Wetenschappelijk

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Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

Women eligible for participation should be living in the area of Zwolle and shoud be less than twelve weeks pregnant at their first visit to the midwifery clinic. They should be able to fill out Dutch questionnaires. Incapacitated subjects will not be asked to participate.

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

Women with pre-eclampsia or twin pregnancies are excluded from further participation. Preeclampsia is defined as pregnancy-induced hypertension (1x > diastolic pressure > 90 mmHg) in association with proteinuria (>0.3 g/day). Furthermore major congenital anomalies at birth will be reason for exclusion.

Onderzoeksopzet

Opzet

Type:	Observationeel onderzoek, zonder invasieve metingen
Onderzoeksmodel:	Factorieel
Toewijzing:	N.v.t. / één studie arm

Controle: N.v.t. / onbekend

Deelname

Nederland

Status:	Werving nog niet gestart
(Verwachte) startdatum:	17-01-2011
Aantal proefpersonen:	500
Type:	Verwachte startdatum

Ethische beoordeling

Positief advies

Datum:	08-12-2010
Soort:	Eerste indiening

Registraties

Opgevolgd door onderstaande (mogelijk meer actuele) registratie

Geen registraties gevonden.

Andere (mogelijk minder actuele) registraties in dit register

Geen registraties gevonden.

In overige registers

Register	ID
NTR-new	NL2528
NTR-old	NTR2646
Ander register	METC VUMC : 2010/251
ISRCTN	ISRCTN wordt niet meer aangevraagd.

Resultaten

Samenvatting resultaten
N/A