Nocturnal Free Fatty Acids. Measurements in obese and lean subjects and the effect of â-blockage on pulsatile release.

Gepubliceerd: 19-11-2008 Laatst bijgewerkt: 13-12-2022

Nocturnal FFA levels are higher in obese insulin resistant subjects and are less sensitive to the FFA lowering effects of a â-receptor blocker.

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

Samenvatting

ID

NL-OMON21331

Bron
NTR

Verkorte titel
NFFA

Aandoening

free fatty acid release

vrije vetzuur afgifte

Ondersteuning

Primaire sponsor: Academic Medical Center (AMC), Department of Endocrinology and Metabolism
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Overige ondersteuning: fund=initiator=sponsor

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

- Percent and/or absolute changes in nocturnal FFA levels with or without â-blockage.

Toelichting onderzoek

Achtergrond van het onderzoek

It has been convincingly demonstrated that free fatty acids (FFA) play a key role in the induction of obesity-induced insulin resistance. The higher plasma levels of FFA originate from adipocytes which show higher rates of lipolysis in insulin stimulated states, i.e. insulin resistance of adipose tissue. The release of FFA is pulsatile and show a circadian rhythm and is thereby in part controlled by the central nervous system. Whether this pulsatility or rhythm is disturbed in insulin resistant subjects is not known. In a dog model FFA levels can be lowered by blocking the â-receptor present on the adipocyt, thereby decreasing the influence of the central nervous system on FFA release. In this study we aim to translate these findings to obese insulin resistant and lean insulin sensitive humans.

Doel van het onderzoek

Nocturnal FFA levels are higher in obese insulin resistant subjects and are less sensitive to the FFA lowering effects of a â-receptor blocker.

Onderzoeksopzet

N/A

Onderzoeksproduct en/of interventie

Propranolol infusion

Contactpersonen

Publiek

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Wetenschappelijk

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Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

1. Male obese subjects (BMI > 30 kg/m2) and healthy lean controls (BMI 20 > 25 kg/m2)

2. Age 20 – 50 years

3. Stable weight 3 months prior to study inclusion

4. Caucasian

5. Written informed consent

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

1. Any chronic medical condition or use of any medication

2. Asthma and bronchospastic COPD

3. Tobacco use

4. Alcohol abuse (>3/day)

5. Frequent intensive exercise (>2 week)

6. Familial lipid disorders, renal insufficiency (creatinine > 150 umol/L) , elevated liver enzymes (> 2 times), hypertension

7. Hypotension (BP < 100/60 mmHg), bradycardia (HR < 60min)

8. Unwilling or unable to provide informed consent

9. First degree family members with diabetes

10. Abnormal day/night rhythm (shiftworkers etc)

11. Blood donation in the past three months

Onderzoeksopzet

Opzet

Type:	Observationeel onderzoek, zonder invasieve metingen
Onderzoeksmodel:	Anders
Toewijzing:	N.v.t. / één studie arm
Blindering:	Enkelblind
Controle:	N.v.t. / onbekend

Deelname

Nederland

Status:	Werving nog niet gestart

(Verwachte) startdatum:	01-12-2008
Aantal proefpersonen:	20
Type:	Verwachte startdatum

Ethische beoordeling

Positief advies

Datum:	19-11-2008
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	NL1481
NTR-old	NTR1549
Ander register	: 08/282
ISRCTN	ISRCTN wordt niet meer aangevraagd

Resultaten

Samenvatting resultaten
N/A