Diagnostic value of distention and intima-media thickness measurement for the detection of endofibrosis and a possible role of the coagulation activation potential on the development of endofibrosis.

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Can IMT and Distension measurment of the iliacal artery determine Endofibrosis in an early stage and is there a link between the development of endofibrosis and the coagulation activation potential of the blood?

Ethische beoordeling	Niet van toepassing
Status	Werving nog niet gestart
Type aandoening	-
Onderzoekstype	Observationeel onderzoek, zonder invasieve metingen

Samenvatting

ID

NL-OMON23772

Bron
Nationaal Trial Register

Aandoening

Coagulation, Endofibrosis, Intima-Media Thickness, vessel wall

Ondersteuning

Primaire sponsor: Maastricht University
Overige ondersteuning: Kootstra Talent Fellowship

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

Determining the IMT of the common iliac artery wall.
Determining the distension of the pelvic arterial wall.
Determine coagulation parameters

Toelichting onderzoek

Achtergrond van het onderzoek

Endofibrosis is an disease affecting 15-20% of the young (17-30 years old) professional cyclists and speed skaters. The disease is characterized by fibrotic tissue formation in the iliacal artery, resulting in a stenosis. As a result of this the bloodflow is reduced, resulting in unilateral ischemic symptoms.

To date the mechanism behind this fibrotic tissue formation is still unknown. However, the development of the fibrotic tissue formation is linked to activation of Protease Activated Receptors (PARs) by active coagulation factors. It's known that activation of these receptors by active coagulation factors can affect the vessel wall composition, however data is fragmented and the underlying mechanism is not known yet. So information about this could provide new insights in these processes and it can possibly be linked to the development of endofibrosis.

Endofibrosis is irreversible, so an surgical intervention is needed to solve the problem. Endofibrosis is with the current diagnostic methods (Duplex and Magnetic Resonance Angiography) only detectable in an late phase of the disease, when the patient already experiences significant symptoms. Recently a new diagnostic method is developed, with which vessel wall changes can be detected in an earlier stage. This method is based on intimal-media thickness (IMT) en distention measurement of the vessel wall by echography.

Since recent research found a new therapeutic target to inhibit fibrotic tissue formation in an early stage, early detection of the disease plays an important role to set up an noninvasive therapy.

Doel van het onderzoek

Can IMT and Distension measurment of the iliacal artery determine Endofibrosis in an early stage and is there a link between the development of endofibrosis and the coagulation activation potential of the blood?

Onderzoeksopzet

x

Onderzoeksproduct en/of interventie

Ultrasound of the iliacal artery

Blood collection from the forearm (30mL)

Contactpersonen

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Wetenschappelijk

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Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

Controle population: minimal 18 years old and max 35 years old - mentally capable

Population with endofibrosis: - minimal 18 years old and maximal 35. - mentally capable - complaining of lower limb ischemia during exercise - confirmed endofibrosis by Magnetic Resonance Angiography.

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

All population: diagnosed with an cardiovascular disease, operation on the a. iliacal communis or a. iliacal externa, BMI > 30, <18 years old, pregnancy

Onderzoeksopzet

Opzet

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

Deelname

Nederland

Status:	Werving nog niet gestart
(Verwachte) startdatum:	01-10-2014
Aantal proefpersonen:	70
Type:	Verwachte startdatum

Ethische beoordeling

Niet van toepassing

Soort:	Niet van toepassing

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	NL4634
NTR-old	NTR4786
Ander register	:

Resultaten

Samenvatting resultaten
Posthuma JJ et al. Cycling induces a hypercoagulable state through contat activation.