The Mont Blanc study 2

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We hypothesize that the interaction between blood cells, platelets, red blood cells or monocytes and the plasma compartment is responsible for the increase in thrombotic risk. Therefore, we aim to investigate the effect of hypoxia on the blood cells...

Ethische beoordeling	Niet van toepassing
Status	Werving nog niet gestart
Type aandoening	-
Onderzoekstype	Interventie onderzoek

Samenvatting

ID

NL-OMON23647

Bron
NTR

Aandoening

hypoxia altitude thrombosis thrombin generation

Ondersteuning

Primaire sponsor: Maastricht University
Overige ondersteuning: Maastricht University
Synapse bv

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

Thrombin generation will be done in whole blood and plasma with and without the addition of exogenous thrombomodulin. The parameters we will study at are: the peak height, ETP, lagtime, time-to-peak and velocity index.
Samples after TG will be fixated for scanning electron microscopy (SEM) for cell morphology. Facs experiments will be performed for PS-exposure and platelet reactivity.

Flow experiments for thrombus formation analysis with microfluidic chips.

Toelichting onderzoek

Doel van het onderzoek

We hypothesize that the interaction between blood cells, platelets, red blood cells or monocytes and the plasma compartment is responsible for the increase in thrombotic risk. Therefore, we aim to investigate the effect of hypoxia on the blood cells, how/why they get activated, develop microparticles, and express anionic phospholipids on their outer membrane. In order to achieve this we also need to establish whether the results of a stay in the hypoxic chamber are comparable to a stay at high altitude, regardless of the difference in barometric pressure. We do not expect differences in physical activity or gender during the stay in a hypoxic chamber, but we need to exclude this. Last but not least, we would like to investigate whether reoxygenation also plays a role in the development of thrombosis after hypoxia.

Onderzoeksproduct en/of interventie

Induction of hypoxia by either going on altitude or by a stay in a low oxygen chamber.

Contactpersonen

Publiek

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Wetenschappelijk

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Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

• Healthy subjects (not having any morbidity and without obvious sign of illness and not taking any medication interfering with coagulation) willing to participate to both parts of our study.

• All healthy volunteers will undergo a physical check-up by an authorized medical doctor. During this physical check-up the doctor will look at the ECG, the blood pressure, the heart rate and blood oxygen level.

• Between 18 and 50 years of age. We take 50 years as a maximal age to prevent any co-morbidity that could have an influence on coagulation (like diabetes, atherosclerosis, peripheral arterial disease, ...).

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

• Subjects taking any medication interfering with coagulation.

• Subjects having a cardiovascular disease or any other serious medical problem.

• Subjects below 18 or above 50 years of age.

Onderzoeksopzet

Opzet

Type:	Interventie onderzoek
Onderzoeksmodel:	Anders
Toewijzing:	N.v.t. / één studie arm
Blindering:	Open / niet geblindeerd
Controle:	N.v.t. / onbekend

Deelname

Nederland

Status:	Werving nog niet gestart
(Verwachte) startdatum:	01-11-2014
Aantal proefpersonen:	28
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	NL4637
NTR-old	NTR4806
Ander register	: METC143032

Resultaten