Creatine kinase and platelets

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To assess whether the inhibitory effect of CK on platelet aggregation can be reversed in vitro.

Ethical review	Approved WMO
Status	Recruitment stopped
Health condition type	Coagulopathies and bleeding diatheses (excl thrombocytopenic)
Study type	Observational invasive

Summary

ID

NL-OMON43085

Source
ToetsingOnline

Brief title
Creatine kinase and platelets

Condition

- Coagulopathies and bleeding diatheses (excl thrombocytopenic)

Synonym
bleeding

Research involving
Human

Sponsors and support

Primary sponsor: Academisch Medisch Centrum
Source(s) of monetary or material Support: Ministerie van OC&W

Intervention

Keyword: creatine kinase, platelets

Outcome measures

Primary outcome

Inhibition of the effect of creatine kinase on platelets in vitro

Secondary outcome

not applicable

Study description

Background summary

We have previously shown that creatine kinase, the enzyme that utilizes ADP and phosphocreatine to rapidly regenerate ATP, inhibits platelet aggregation in vitro (Horjus 2014). This mechanism may lead to higher bleeding risk in persons with high activity of creatine kinase. Now, we want to assess whether this effect of CK can be reversed in vitro.

Study objective

To assess whether the inhibitory effect of CK on platelet aggregation can be reversed in vitro.

Study design

This is an observational study in vitro using human venous blood. The in vitro study will be conducted at the Department of Clinical Chemistry, AMC, Amsterdam. We will assess, after informed consent, in venous blood in vitro, CK, creatinine, glucose, ASAT, ALAT, thrombocyte count, coagulation tests (aPTT, PT). In addition, we will assess whether the inhibitory effect of CK on platelet aggregation can be reversed in vitro.
Volunteers will come to the hospital after an overnight fast. After signing of the informed consent and a short health questionnaire, 50 ml of venous blood will be drawn. Volunteers receive the results of the blood test the next working day by telephone. If we find any abnormality, the family doctor will be informed as well.

Study burden and risks

There is no benefit for the participant, while the risk is considered to be

negligible

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age
Adults (18-64 years)
Elderly (65 years and older)

Inclusion criteria

Healthy volunteers 18-60 years old not using any medication

Exclusion criteria

A potential subject who meets any of the following criteria will be excluded from participation in this study: any known disease as assessed by history taking or the obligatory use of (prescription) drugs.

Study design

Design

Study type: Observational invasive

Masking:	Open (masking not used)
Control:	Uncontrolled
Primary purpose:	Basic science

Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	23-06-2016
Enrollment:	6
Type:	Actual

Ethics review

Approved WMO

Date:	23-05-2016
Application type:	First submission
Review commission:	METC Amsterdam UMC

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register	ID
CCMO	NL57523.018.16