REVERSAL OF ANTICOAGULANT EFFECT OF DABIGATRAN® BY PROTHROMBIN COMPLEX CONCENTRATE (BERIPLEX®) ASSESSED WITH A NOVEL METHOD OF BLOOD LOSS MEASUREMENT

Published: 01-10-2014
Last updated: 21-04-2024

To determine whether a single dose of 50 IE/Kg PCC is effective in reversing the anticoagulant effect of Dabigatran Etexilate 300mg b.i.d. taken for 2.5 days, as assessed by two modified skin bleeding assays: the "shed blood" and "...

Ethical review	Approved WMO
Status	Recruitment stopped
Health condition type	Other condition
Study type	Interventional

Summary

ID

NL-OMON40643

Source
ToetsingOnline

Brief title
REVERSAL OF DABIGATRAN® BY PROTHROMBIN COMPEX CONCENTRATE (BERIPLEX®).

Condition

- Other condition

Synonym
Reversal of the effect of Dabigatran / Dabigatran-associated bleeding

Health condition

Tegengaan van het effect van Dabigatran in het kader van bloedingen of wanneer acuut operatief ingrijpen noodzakelijk is.

Research involving
Human

Sponsors and support

Primary sponsor: Vasculaire Geneeskunde
Source(s) of monetary or material Support: Ministerie van OC&W,Boehringer Ingelheim

Intervention

Keyword: Dabigatran, Prothrombin Complex Concentrate, Shed Blood, Washed Blood

Outcome measures

Primary outcome

Shed blood: Fibrinopeptide A will be determined in blood collected during 4

minutes from a superficial (5x1mm) cut into the skin, as well as total blood

volume.

Washed blood: which sensitively measures the bleeding time as well the volume

of blood lost from a similar slightly smaller cut in the skin (3.5x1mm).

Secondary outcome

Dabigatran Plasma Levels, Diluted trombin time assay (Hemoclot), Endogenous

thrombin potential, Pre and post factor II, VII, IX, X, aPTT, PT

Study description

Background summary

There is currently no registered antidote for the reversal of Dabigatran in case of bleeding or when emergency surgical intervention is necessary. Prothrombin complex concentrate (PCC) is used for decades in the management of Vitamin-k antagonist associated bleeding and potentially may be effective in reversing the anticoagulant effect of Dabigatran.

Study objective

To determine whether a single dose of 50 IE/Kg PCC is effective in reversing the anticoagulant effect of Dabigatran Etexilate 300mg b.i.d. taken for 2.5 days, as assessed by two modified skin bleeding assays: the "shed blood" and "washed blood" methods.

Study design

cross-over randomized double-blind controlled trial, n=12

Intervention

Patients will take Dabigatran etexilate 300mg b.i.d. for 2.5 days (5 doses) after which they will be randomized to receive a single intravenous dose of PCC (Beriplex) 50IE/Kg or matched volume placebo. After a minimum 10 day wash-out period patients will take Dabigatran etexilate 300mg b.i.d. for 2.5 days (5 doses) and will be randomized to the alternative treatment.

Study burden and risks

Treatment with any anticoagulant is associated with a higher bleeding risk, though minimal in this case. The treatment with PCC has the potential of thromboembolic complications. At the site of venous catheter placement a haematoma might be caused.

The bleeding risk associated with Dabigatran treatment during 2.5 days is very low also taking into account the young age, sexe and expected good kidney function of the test subjects.
The treatment with PCC has been proven safe in similarly designed studies.

Nonetheless patients will be instructed to prevent potentially harmfull activities during the use of anticoagulation and will be observed during and 6 hours after PCC infusion.

Contacts

Public
Selecteer

Hanzeplein 1
Groningen 9713GZ
NL
Scientific
Selecteer

Hanzeplein 1
Groningen 9713GZ
NL

Trial sites

Listed location countries

Netherlands

Eligibility criteria

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

Inclusion criteria

Healthy males
Age: >=18 years, < 50 years
Weight: <100 kg

Exclusion criteria

History of allergic reaction to blood products
Current participation in any other investigational drug study or within the past 30 days
Increased bleeding tendency or history of thrombosis
Anticoagulant medication or platelet aggregation inhibitors
Use of any medication 14 days before start of Dabigatran intake

Study design

Design

Study phase:	2
Study type:	Interventional

Masking:	Double blinded (masking used)
Control:	Uncontrolled
Primary purpose:	Treatment

Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	01-05-2015
Enrollment:	12
Type:	Actual

Medical products/devices used

Product type:	Medicine
Brand name:	Beriplex
Generic name:	Prothrombin Complex Concentrate
Registration:	Yes - NL outside intended use
Product type:	Medicine
Brand name:	Pradaxa
Generic name:	Dabigatran Etexilate
Registration:	Yes - NL outside intended use

Ethics review

Approved WMO

Date:	01-10-2014
Application type:	First submission
Review commission:	METC Universitair Medisch Centrum Groningen (Groningen)

Approved WMO

Date:	17-12-2014
Application type:	First submission
Review commission:	METC Universitair Medisch Centrum Groningen (Groningen)

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
EudraCT	EUCTR2014-002204-24-NL
CCMO	NL49443.042.14

Study results

Date completed:	08-08-2017
Actual enrolment:	12