Role of propranolol on migraine treatment

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The administration of propranolol will inhibit the increase in dermal blood flow (DBF) induced by capsaicin application.

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

Samenvatting

ID

NL-OMON21229

Bron
NTR

Verkorte titel
TREPMI

Aandoening

Migraine
CGRP
Propranolol
Iontophoresis/Iontoforese
Capsaicin/Capsaïcine

Ondersteuning

Primaire sponsor: Dr. A.H. van den Meiracker,
Internist, Vascular Medicine.
Erasmus Medical Center Rotterdam
‘s Gravendijkwal 230, 3015GC Rotterdam, The Netherlands
Telephone number : 0031 010 7034220
Fax number : 0031 010 7034937
E-mail: a.vandenmeiracker@erasmusmc.nl
Overige ondersteuning: Erasmus MC

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

Changes in dermal blood flow response to capsaicin application and saline iontophoresis, after propranolol administration.

Toelichting onderzoek

Achtergrond van het onderzoek

Migraine is one of the top 10 most disabling diseases. Propranolol is a nonselective β-blocker that is primarily used to treat hypertension and there is high-quality evidence that propranolol is also an effective prophylactic drug for migraine headaches. The mechanism of action of propranolol is still unknown. We hope to determine the mechanism by measuring with a laser Doppler scanner the increase in dermal blood flow after stimulation of the afferent nerves of the trigeminal nerve on the forehead. The trigeminal nerve also innervates the dura mater, where the migraine is thought to have its origin. We hypothesized that the propranolol will inhibit the rise of dermal blood flow caused by capsaicin application and saline iontophoresis. This will provide more insight in the action of propranolol, resulting in a better understanding of the pathophysiology of migraine and also in its prophylactic treatment.

Doel van het onderzoek

The administration of propranolol will inhibit the increase in dermal blood flow (DBF) induced by capsaicin application.

Onderzoeksopzet

The volunteers will come twice to Erasmus MC. Each appointment will last an estimated of 150 minutes.

Onderzoeksproduct en/of interventie

The volunteers will need to take a tablet of Propranolol 80mg (which is the normal therapeutic dose)

Contactpersonen

Publiek

Erasmus Medical Center Rotterdam

J. Langendonk
‘s Gravendijkwal 230

Rotterdam 3015 GC
The Netherlands

Wetenschappelijk

Erasmus Medical Center Rotterdam

J. Langendonk
‘s Gravendijkwal 230

Rotterdam 3015 GC
The Netherlands

Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

• Age between 18 and 64 years

• Male or female

• Females should use an oral contraceptive pill

• Non-smoking for > 6 months

• Body mass index between 19 and 30 kg/m2

• Capable and willing to give informed consent

• General good health, based on medical history and physical examination

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

• History of cardiovascular disease

• Blood pressure <110/70 (supine)

• Heart rate <60 bpm

• Perimenopausal status of females

• Any serious illness that can compromise study participation

• Use of any medication (e.g., NSAIDs, other analgesics) < 48 hrs before the study

• Dermal diseases at the upper frontal side of the face

• Pregnancy or breastfeeding

• History of sensitivity to the fruits of capsicum plants (e.g. chilli peppers)

• Alcohol or drug abuse

Onderzoeksopzet

Opzet

Type:	Interventie onderzoek
Onderzoeksmodel:	Cross-over
Toewijzing:	Gerandomiseerd
Blindering:	Dubbelblind
Controle:	Placebo

Deelname

Nederland

Status:	Werving nog niet gestart
(Verwachte) startdatum:	01-03-2016
Aantal proefpersonen:	22
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	NL4466
NTR-old	NTR5708
Ander register	EudraCT : 2016-000279-26

Resultaten