A randomized, placebo-controlled, double blind, 4-period, cross-over trial, to study mechanisms of blood pressure lowering of losartan, Moxonidine and Low sodium diet in former pre-eclamptic women

No registrations found.

Ethical review	Not applicable
Status	Pending
Health condition type	-
Study type	Interventional

Summary

ID

NL-OMON28431

Source
NTR

Brief title
PALM study

Health condition

Preeclampsia

Sponsors and support

Primary sponsor: University Medical Center Utrecht
Source(s) of monetary or material Support: ZonMw

Intervention

Outcome measures

Primary outcome

mean 24-hour SBP/DBP, mean day/night time SBP/DBP

Secondary outcome

mean intrapersonal changes in endothelial function (FMD), serum lipid concentrations, HOMA, central blood pressure (PWA), serum and urine concentrations of markers of oxidative stress, serum concentrations of markers of systemic inflammation, arterial stiffness (PWV, PWA), RAAS-hormone concentrations, HRV, 24hr urine measurements

Study description

Study objective

We hypothesize that formerly pre-eclamptic women have persistently increased angiotensin II sensitivity, sodium sensitivity, insulin resistance and sympathetic nerve activity together leading to susceptibility for early renal disease and subsequently hypertension, chronic kidney disease and cardiovascular disease. Possibly early intervention in these systems can lower blood pressure effectively and give specific tools for primary prevention strategies

Study design

Study is set up into 4 treatment arms of 8 weeks each.

Intervention

Once daily doses of losartan (100 mg), moxonidine (0,4 mg), low sodium diet (50 mmol NaCl/24 hour) and placebo following standardised 8-week treatment schedules. Participants receive all four interventions in a randomized and blinded (except from low sodium diet).

Contacts

Public
UMC Utrecht
Heidelberglaan 100
A.T. Lely
Utrecht
The Netherlands
Scientific
UMC Utrecht
Heidelberglaan 100
A.T. Lely

Utrecht
The Netherlands

Eligibility criteria

Inclusion criteria

1. Patient is a female between 18 and 45 years of age on the day of signing informed consent.

2. Have a recent history of preeclampsia that is defined as gestational hypertension and concomitant proteinuria in the second half of pregnancy. Gestational hypertension was defined according to the criteria of the International Society for the Study of Hypertension in Pregnancy (ISSHP) as diastolic blood pressure above 90 mmHg and/or systolic blood pressure above 140 mmHg, measured on two or more separate occasions at least 4 hours apart. Proteinuria was diagnosed with urinary protein was above 300 mg per 24 hour or above 2+ at dipstick urinalysis 17

3. All patients should fulfil the following diagnostic criterion:

- Off treatment SBP > 120 mmHg and/or DBP > 80 mmHg during both visits.

4. Blood pressure is assessed by office readings in accordance with current guidelines for hypertension diagnosis18. The patient needs to be seated some minutes before and during the measurement. The cuff size should be adjusted to the patients' arm circumference and needs to be on the same height level as the patients' sternum during the measurements. Blood pressure is determined to a 2-mmHg accuracy-level. Blood pressure is measured on both arms during the first visit. If both measurements differ more than 10 mmHg, the highest value is taken. After at least 15 seconds, the measurement is repeated during the same visit. The highest mean of the two measurements on the same arm is considered as the actual blood pressure value.

5. Patient understands the study procedures, alternative treatments available, and risks involved with the study and voluntarily agrees to participate by giving written informed consent.

Exclusion criteria

1. SBP > 180 mmHg and/or DBP > 110 mmHg during one or more screening measurements.

2. Current pregnancy

3. Current smoking or smoking during the previous 3 months

4. Use of “recreational” or illicit drugs

5. Recent history (within the last year) of alcohol abuse or dependence.

6. History of hypersensitivity reactions or intolerance to any (components of) medication used in this trial.

7. Current / recent participation (within 30 days of signing informed consent) in a study with an investigational compound or device.

8. Laboratory values as listed below:

a. Hemoglobin (Hb) < 8,6 mmol/L

b. TSH <0.3 mcIU/mL or > 5.0 mcIU/mL

c. MDRD < 60 mL/min/1,73m2

9. Medical conditions as listed below:

a. Resistant hypertension (blood pressure above target level, despite 3 antihypertensives, including a diuretic)

b. Secondary hypertension

c. Congestive Heart Failure

d. Atherosclerotic vascular disease. (As per NCEP ATP III and AHA/ACC Guidelines: Established atherosclerotic vascular disease includes history of myocardial infarction, stable angina, coronary artery procedures (angioplasty or bypass surgery) or evidence of clinically significant myocardial ischemia. Other atherosclerotic vascular disease includes clinical manifestations of non-coronary forms of atherosclerotic disease (peripheral arterial disease, cerebrovascular disease, abdominal aortic aneurysm, and carotid artery disease [transient ischemic attacks or stroke of carotid origin or >50% obstruction of a carotid artery]).

e. Cardiac arrhythmia’s, for example bradycardia, atrial fibrillation, sick-sinus syndrome, sinoatrial block, atrioventricular block or any other arrhythmia.

f. Obstructive sleep apnea syndrome (OSAS) or a score of 10 or higher on the Epworth Sleepiness Scale questionnaire 19 (see: appendix)

g. Serious liver function disorders (Child-Pugh-Class C).

h. COPD (GOLD classification of severity 2 or higher)

i. Celiac disease or other significant intestinal malabsorption

j. Malignancy ≤ 5 years prior to signing informed consent, except for adequately treated basal or squamous cell skin cancer or in situ cervical cancer.

k. Mental instability or major psychiatric illness

l. Polyneuropathy or clinical suspicion for autonomic nervous system dysfunction.

m. Any diseases that would limit or complicate study evaluation or participation.

n. Any diseases or screening abnormalities that call for treatment that cannot be postponed until after the study period without causing harm.

10. Any concomitant medication, particularly antihypertensive co-medication, glucose lowering medication, lipid lowering drugs, systemic corticosteroids and vitamin C or E supplements, but also any other kinds of drugs, including over the counter medication. Exceptions can be made for the following categories of drugs:

a. paracetamol;

b. proton-pump inhibitors;

c. topical creams and unguents that do not lead to significant uptake of the active components into the circulation (in case of steroid creams: class II or lower);

d. inhalation medication, nasal sprays and eye drops that do not lead to uptake of any of the active components into the circulation.

Study design

Design

Study type:	Interventional
Intervention model:	Crossover
Allocation:	Randomized controlled trial
Masking:	Double blinded (masking used)
Control:	Placebo

Recruitment

NL

Recruitment status:	Pending
Start date (anticipated):	01-09-2014
Enrollment:	30
Type:	Anticipated

Ethics review

Not applicable
Application type: Not applicable

Study registrations

Followed up by the following (possibly more current) registration

ID: 44513
Bron: ToetsingOnline
Titel:

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

No registrations found.

In other registers

Register	ID
NTR-new	NL4376
NTR-old	NTR4590
CCMO	NL49102.041.14
OMON	NL-OMON44513

Study results