Trial Description

Title

Genetic background of arterial hypertension

Trial Acronym

[---]*

URL of the trial

http:///

Brief Summary in Lay Language

Goal of our investigation is it to find by gene analyses (DNA from a blood test) genetic variants (mutations) in patients with therapy resistant hypertension. It is known for a long time that hypertension is more prevalent in certain families. This is a reference that this illness has probably at least partial hereditary components, which we want to identify. So far only a small number at mutations in individual genes could be made responsible as an exclusive cause of hypertension in comparatively few families. This is above all because of the fact that hypertension can be a complex, polygenetic illness, which is further influenced by environmental factors. Furthermore genetic causes of hypertension have so far not sufficiently been explored. The proof of such changes in the genetic make-up is however of great importance in order to understand the impact of certain environmental factors and to develop purposeful treatments. This will permit conclusions regarding the illness processes in the respective patient.

Brief Summary in Scientific Language

To date approx. 25 monogenetic causes for arterial hypertension from the overlapping clinical spectra of cardiogenic, nephrogenic and endocrine phenotypes are known. With the help of new sequencing methods a relevant number of new monogenetic forms of hypertension have been identified in recent years. Considering the small number of known genetic forms of hypertension and the high frequency and clinical variability of arterial hypertension it is to be assumed that a very large genetic heterogeneity and a relevant number of yet unidentified monogenetic and complex-genetic forms of hypertension exist.
Goals of the present research project are:
i) the examination of specific risk variants for essential arterial hypertension in our well characterized patient cohort.
ii) the identification of new risk variants in candidate genes.
iii) the identification of so far unknown genetic causes of hypertension.

Organizational Data

- DRKS-ID: **DRKS00010804**
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Date of Registration in DRKS: **2016/07/11**

- Date of Registration in Partner Registry or other Primary Registry: **[---]***
- Investigator Sponsored/Initiated Trial (IST/IIT): **yes**
- Ethics Approval/Approval of the Ethics Committee: **Approved**
- (leading) Ethics Committee Nr.: **16-101 , Ethik-Kommission der Medizinischen Fakultät der Universität zu Köln**

Secondary IDs

Health condition or Problem studied

- ICD10: **I10.0 - [generalization I10: Essential (primary) hypertension]**

Interventions/Observational Groups

- Arm 1: **Patients with therapy resistant hypertension**
  Intervention: genotyping of DNA from blood sample.

Characteristics

- Study Type: **Non-interventional**
- Study Type Non-Interventional: **Epidemiological study**
- Allocation: **Single arm study**
- Blinding: **[---]***
- Who is blinded: **[---]***
- Control: **Uncontrolled/Single arm**
- Purpose: **Diagnostic**
- Assignment: **Single (group)**
- Phase: **N/A**
- Off-label use (Zulassungsüberschreitende Anwendung eines Arzneimittels): **N/A**

Primary Outcome

Prevalence of known genetic variants of hypertension.

Secondary Outcome

Genotypes of risk variants
Genepanel analysis
Exome (WES)- or genomesequencing (WGS)

Countries of recruitment

- DE **Germany**

Locations of Recruitment

- University Medical Center **Universitäres Hypertoniezentrum Köln, Köln**

Recruitment

- Planned/Actual: **Planned**
- (Anticipated or Actual) Date of First Enrollment: **2016/08/01**
- Target Sample Size: **300**
- Monocenter/Multicenter trial: **Monocenter trial**
- National/International: **National**

Inclusion Criteria

- Gender: **Both, male and female**
- Minimum Age: **18 Years**
- Maximum Age: **99 Years**

Additional Inclusion Criteria

Patients with therapy resistant hypertension.

Exclusion criteria

Age < 18 yrs. Secondary causes of hypertension, pseudohypertension.

Addresses

- **Primary Sponsor**

  Universitäres Hypertoniezentrum Köln

Primary Sponsor

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Sources of Monetary or Material Support

- **Institutional budget, no external funding (budget of sponsor/PI)**

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Status

- Recruitment Status: **Recruiting planned**
- Study Closing (LPLV): **[---]***

Trial Publications, Results and other documents

** This entry means the parameter is not applicable or has not been set.*
**** This entry means that data is not displayed due to insufficient data privacy clearing.*