AARHUS UNIVERSITY

# Press release

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**Basic information**

Name: Troels Fogh Pedersen Email: troels.fogh@ki.au.dk Phone: 26952616

Department of: Clinical Medicine

Main supervisor: Nikolaj Eldrup

Title of dissertation: Preconditioning for prevention of myocardial ischemia during operation for ruptured abdominal aortic aneurysm.

Date for defence: 23.10.2017 at (time of day): 14.00 Place: Meeting room 32 & 33, Aarhus University Hospital Skejby, Palle Juul-Jensens Boulevard 99, 8200 Aarhus N

Press release (Danish)

## Klinisk forsøg for at reducere blodpropper i hjertet i forbindelse med operation for bristet udposning på legemspulsåren.

Ved en livsredende operation for en bristet udposning på legemspulsåren er der stor risiko for blodpropper i hjertet under operationen og i efterforløbet. Denne risiko er forsøgt reduceret ved at gennemføre en selvinduceret hormonel metode kendt fra det hjertemedicinske område gennem et klinisk studie i et nyt ph.d.-projekt fra Aarhus Universitet, Health. Projektet er gennemført af Troels Fogh Pedersen, der forsvarer det d. 23/10

Ph.d.-projektet er et klinisk studie gennemført på de karkirurgiske afdelinger i Kolding, Aalborg og Aarhus, hvor man gennem et lodtrækningsstudie med 200 patienter undersøgte, om en metode kaldet prækonditionering kan reducere den betydelige risiko for blodpropper i hjertet i forbindelse med akut operation for en bristet udposning på legemspulsåren. Prækonditionering er en ikke invasiv og ufarlig metode kendt fra især det hjertemedicinske område, hvor der ved periodevis afklemning af blodtilførsel af f.eks. en arm eller et ben skabes et slags hormonel respons, der muligvis kan reducere den skade i hjertet en blodprop kan foresage. Studiet forløb over 5 år, og viste at prækonditionering reducerer forekomsten af blodpropper, men ikke i betydelig grad. Studiet viste også at metoden muligvis kan reducere andre komplikationer relateret til operation for bristet udposning på legemspulsåren, såsom nyreskade eller vævsdød i tarmen. Dette kan dog ikke siges med statistisk sikkerhed, men det åbner for muligheder for yderligere studier. Forsvaret af ph.d.-projektet er offentligt og finder sted den 23/10 kl. 14 i lokale 32 & 33 Aarhus University Hospital Skejby, Palle Juul-Jensens Boulevard 99, 8200 Aarhus N.
Titlen på projektet er "Preconditioning for prevention of myocardial infarction during operation for ruptured abdominal aortic aneurysm". Yderligere oplysninger: Ph.d.-studerende Troels Fogh Pedersen, e-mail: troels.fogh@clin.au.dk, tlf. 2695 2616.

Bedømmelsesudvalg:
Professor Hans Erik Bøtker, MD, PhD, DMSc- Formand for bedømmelsesudvalg og ordstyrer af PhD-forsvaret.
Institut for Klinisk Medicin, Hjertesygdomme, Aarhus Universitetshospital Skejby, Palle Juul-Jensens Boulevard 99, 8200 Aarhus N

Professor Torben V. Schroeder, MD, DMSc
Copenhagen Academy for Medical Education and Simulation (CAMES), Rigshospitalet, Teilumbygningen, Blegdamsvej 9 , 2100 København Ø, Denmark.

Ass. Professor Kevin Mani MD, PhD

AARHUS UNIVERSITY

Department of surgical science, Akademiska Sjukhuset, Uppsala, Sverige.

Press release (English)

# Clinical study with the attempt to reduce myocardial infarction, during operation for ruptured aortic aneurysm.

There is a high risk of myocardial infarction, during a life-saving operation for ruptured aortic aneurysm and afterwards during hospitalization. This risk is attempted reduced by conducting a self-induced hormonal method known from the field of cardiology through a clinical study in a new PhD project from Aarhus University, Health. The project was carried out by Troels Fogh Pedersen, who is defending his dissertation on 23/10.

The PhD project is a clinical study conducted at the departments for vascular surgery in Kolding, Aalborg and Aarhus. 200 patients were randomized to study whether a method called preconditioning can reduce the significant risk of myocardial inferction associated with acute operation for ruptured aortic aneurysm. Preconditioning is a non-invasive and harmless method known from especially the field of cardiology where periodic abolishment of the blood supply of e.g. an arm or leg may reduce the damage in the heart a myocardial infarction through a kind hormonel response. The study proceeded over a period of 5 years, and showed that preconditioning reduced the occurrence of myocardial infarction, but not significantly. The study also showed that the method may reduce other complications related to surgery for ruptured aortic aneurysm, such as kidney injury or intestinal ischemia. However, this can not be said with certainty, but it opens up for the opportunities for further studies. The defence is public and takes place on 23/10 at 14.00h in meeting room 32 & 33 Aarhus University Hospital Skejby, Palle Juul-Jensens Boulevard 99,
DK-8200 Aarhus N.
The title of the project is ”Preconditioning for prevention of myocardial ischemia during operation for ruptured abdominal aortic aneurysm”. For more information, please contact PhD student Troels Fogh Pedersen, email: troels.fogh@clin.au.dk, Phone +45 2695 2616.

Assessment committee:
Professor, chief physician Hans Erik Bøtker, MD, PhD, DMSc- chairman of the assessment committee and moderator of the defence.
Department of Cardiology, Aarhus University Hospital Skejby, Palle Juul-Jensens Boulevard 99, DK-8200 Aarhus N

Professor Torben V. Schroeder, MD, DMSc
Copenhagen Academy for Medical Education and Simulation (CAMES), Blegdamsvej 9 , 2100 Copenhagen Ø, Denmark.

Ass. Professor Kevin Mani MD, PhD
Department of surgical science, Uppsala University Hospital, Uppsala, Sweden.

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