

Press release

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Basic information

Name: Kristian Løkke Funck Email: klf@clin.au.dk Phone: +45 61331588

Department of: Clinical Medicine

Main supervisor: Per Løgstrup Poulsen

Title of dissertation: ARTERIAL STIFFNESS AND COMPLICATION RISK IN TYPE 2 DIABETES

Date for defence: 31.05.17 at (time of day): 12.30 Place: auditoriet 1252 - 204 Eduard Biermann, Søauditorierne

Press release (Danish)

Måling af blodkarrenes stivhed kan give vigtig information om risikoen for at udvikle følgesygdomme til type 2 sukkersyge

Måling af blodkarrenes stivhed er en ny lovende risikomarkør for følgesygdomme hos patienter med type 2 sukkersyge. Et nyt ph.d.-projekt fra Aarhus Universitet, Health, har belyst sammenhængen mellem karstivhed og tidlige tegn til følgesygdomme i hjernen og hjertet. Projektet er gennemført af Kristian Løkke Funck, der forsvare det d. 31/5 2017

Patienter med type 2 sukkersyge har en øget risiko for alvorlige og potentielt dødelige følgesygdomme, såsom slagtilfælde og åreforkalkningssygdom i kranspulsårene. Risikoen for hjertekarsygdom hos den enkelte patient er dog vanskelig at bestemme. Stivheden af de centrale blodkar, bestemt indirekte ved aortas pulsølgehastighed, kan muligvis forbedre opsporingen af patienter i høj risiko for at udvikle disse følgesygdomme. Formålet med dette ph.d.-projekt var at undersøge sammenhængen mellem blodkarstivhed og tidlige tegn til følgesygdomme i hjernen og hjertet. Projektet tog udgangspunkt i undersøgelser foretaget på 100 patienter med type 2 sukkersyge og 100 alders- og køns-matchedde kontrolpersoner. Deltagerne blev undersøgt af to omgange med 5 års mellemrum. Projektet viser, at øget karstivhed er forbundet med graden af åreforkalkningssygdom i hjertets kranspulsårer samt forbundet til udviklingen af arvæv i hjernens hvide substans. Resultaterne indikerer, at karstivhed er involveret i de sygdomsfremkaldende mekanismer, som går forud for manifest sygdom. Endvidere understøtter resultaterne, at karstivhed er en vigtig kandidat som mulig ny risikomarkør for følgesygdomme i hjernen og hjertet hos patienter med type 2 sukkersyge.

Forsvaret af ph.d.-projektet er offentligt og finder sted den 31/05 kl. 12.30 i Eduard Biermann auditorium (auditoriet 1252 - 204, Søauditorierne), Aarhus Universitet, Nordre Ringgade 1, Aarhus C. Titlen på projektet er "ARTERIAL STIFFNESS AND COMPLICATION RISK IN TYPE 2 DIABETES". Yderligere oplysninger: Ph.d.-studerende Kristian Løkke Funck, e-mail: klf@clin.au.dk, tlf. 61331588.

Press release (English)

Arterial stiffness is a promising new risk marker for cardiovascular complications in type 2 diabetes.

Arterial stiffness has emerged as a promising new cardiovascular risk marker. A ph.d. study from Aarhus University explored possible pathways between arterial stiffness and early subclinical signs of vascular complications in patients with type 2 diabetes. The project was carried out by Kristian Løkke Funck, who is defending his dissertation on 31/5 2017.

Patients with type 2 diabetes are at high risk of cardiovascular complications like stroke and coronary heart disease. It is, however, challenging to determine risk of cardiovascular disease at the individual level. Stiffness of the central elastic arteries, indirectly assessed by aortic pulse wave velocity, may help identify patients at high risk of cardiovascular complications. This study aimed to explore links between arterial stiffness and early signs of cardiovascular disease in the heart and brain. The study was based on data from 100 patients recently diagnosed with type 2 diabetes and 100 healthy age- and sex-matched controls. Participants were invited for two visits 5 years apart. The main findings of the study are that arterial stiffness is associated with the burden of coronary atherosclerosis and the progression of cerebral white matter tissue damage. The results may indicate that arterial stiffness is involved in the mechanisms preceding manifest disease and that it may be a possible target for intervention. Furthermore, it supports current literature pointing at arterial stiffness as a new risk marker for complications in type 2 diabetes.

The defence is public and takes place on 31/05 at Eduard Biermann auditorium (auditoriet 1252 - 204, Søauditorierne), Aarhus Universitet, Nordre Ringgade 1, Aarhus C. The title of the project is ARTERIAL STIFFNESS AND COMPLICATION RISK IN TYPE 2 DIABETES. For more information, please contact PhD student Kristian Løkke Funck, email: klf@clin.au.dk, Phone +45 61331588

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