

Press release

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Basic information

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Department of: Clinical Medicine

Main supervisor: Jan Frystyk

Title of dissertation: Uric Acid and its role in diabetic nephropathy and cardiovascular disease in patients with type 1 diabetes

Date for defence: 5/4-18 at (time of day): 10:30 Place: Hagedorn Auditoriet, Niels Steensensvej 6, NSK, 2820 Gentofte.

Press release (Danish)

Urat og dets rolle i diabetisk nyresygdom og hjertekarsygdom hos patienter med type 1 sukkersyge

På trods af store forbedringer i behandlingen af diabetisk nyresygdom, er det stadig den hyppigste årsag til kronisk nyresvigt i den vestlige verden. Diabetisk nyresygdom er karakteriseret ved urin albumin til kreatinin ratio (UACR) > 30 mg/g, fald i nyrefunktion og forhøjet blodtryk. Patienter med diabetisk nyresygdom har øget risiko for hjertekarsygdom og højere dødelighed sammenlignet med patienter med ukompliceret diabetes. Det er derfor vigtigt at forebygge udviklingen af æggehvide-stoffer i urinen eller bremse faldet i nyrefunktion.

Urat koncentrationen i blodet, har været foreslået som en risikomarkør for diabetisk nyresygdom. I mennesker er niveauet af urat i blodet en balance mellem kroppens produktion og udskillelse.

Prospektive epidemiologiske studier indikerer, at et højt serum urat niveau er associeret med udvikling og forværringen af kronisk nyresygdom og tab af nyrefunktion hos patienter med type 1 diabetes. Samtidig har studier med medicin (allopurinol) foreslået at der er en bedring af at sænke urat niveauet i blodet hos patienter med ikke-diabetisk nyresygdom.

Denne afhandling evaluerer urats rolle i diabetisk nyresygdom og hjertekar sygdom hos patienter med type 1 sukkersyge i et nyt ph.d.-projekt fra Aarhus Universitet, Health.

Projektet er gennemført af Sascha Pilemann-Lyberg, der forsvare det d. 05/04-18.

Forsvaret af ph.d.-projektet er offentligt og finder sted den 05/04 kl. 10:30 i Hagedorn auditorium, Niels Steensensvej 6, NSK, 2820 Gentofte. Titlen på projektet er "Uric Acid and its role in diabetic nephropathy and cardiovascular disease in patients with type 1 diabetes".

Yderligere oplysninger: Ph.d.-studerende Sascha Pilemann-Lyberg, e-mail: Sascha.maria.pilemann-lyberg@regionh.dk, tlf. +4530912975.

Bedømmelsesudvalg:

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Professor, MD, PhD Trond Geir Jenssen
Department of Organ Transplantation, Oslo University Hospital, Rikshospitalet, Norway

Professor, MD, PhD, DMSc Peter Vestergaard
Department of Endocrinology, Aalborg University Hospital

Press release (English)

Uric Acid and its role in diabetic nephropathy and cardiovascular disease in patients with type 1 diabetes

Despite marked improvements in treatment of diabetic nephropathy, it remains the leading cause of end-stage renal disease in the Western world. Diabetic nephropathy is characterised by urinary albumin to creatinine ratio (UACR) > 30 mg/g, decline in kidney function and hypertension. Patients with diabetic nephropathy are more prone to develop cardiovascular disease and they have a higher mortality as compared to patients with uncomplicated diabetes. Preventing the development of albuminuria or slowing the decline in kidney function continues to be of high importance.

Uric acid has been proposed as a risk marker for diabetic nephropathy. In humans serum level of uric acid reflects the whole body balance between uric acid production and elimination. Prospective epidemiological studies have suggested that a higher uric acid serum levels is associated with development and progression of chronic kidney disease and loss of kidney function among patients with type 1 diabetes. Furthermore, some intervention studies have suggested a benefit of uric acid lowering/allopurinol in non-diabetic chronic kidney disease.

This thesis evaluated the role of uric acid in diabetic nephropathy and cardiovascular disease in patients with type 1 diabetes.

The project was carried out by Sascha Pilemann-Lyberg, who is defending her dissertation on 05/04.

The defence is public and takes place on 05/04 kl. 10:30 i Hagedorn auditorium, Niels Steensensvej 6, NSK, 2820 Gentofte. The title of the project is "Uric Acid and its role in diabetic nephropathy and cardiovascular disease in patients with type 1 diabetes". For more information, please contact PhD student Sascha Pilemann-Lyberg, email: Sascha.maria.pilemann-lyberg@regionh.dk, Phone +45 30912975

Assessment committee:

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