

Press release

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Basic information

Name: Hanne Mari Skou Jørgensen Email: hsjorgensen@clin.au.dk Phone: +45 61655511

Department of: Clinical Medicine

Main supervisor: Per Ramløv Ivarsen

Title of dissertation: Bone density and biochemical markers in chronic kidney disease – mineral and bone disorder

Date for defence: 24.11.2017 at (time of day): 14:00 Place: Auditorium B, Aarhus Universitetshospital, Palle Juul-Jensens Boulevard 99, 8200 Aarhus N

Press release (Danish)

Ny viden om knoglesygdom hos patienter med kronisk nyresvigt

Et nyt ph.d.-projekt fra Aarhus Universitet, Health undersøger sammenhængen mellem knogletæthed og risiko for knoglebrud hos svært nyresyge patienter. Projektet er gennemført af Hanne Skou Jørgensen, der forsvare det d. 24/11-2017.

I sit ph.d.-projekt har Hanne Skou Jørgensen benyttet CT-scanning til at undersøge knogle-afkalkning i ryg og hofte, samt karforkalkning hjertet og hovedpulsåren hos 157 svært nyresyge patienter, under udredning med henblik på nyre-transplantation. Patienter med kronisk nyresvigt udvikler knoglesygdom med en øget risiko for knoglebrud, men der mangler en accepteret metode til, at vurdere risikoen for knoglebrud hos disse patienter. Hovedformålet med studiet var, at undersøge sammenhængen mellem knogletæthed (bone mineral density, BMD) og knoglebrud, sekundært at kigge på biokemiske markører for knoglesygdom, samt en mulig sammenhæng mellem knoglesygdom og hjerte-kar-forkalkning.

Studiet fandt, at nyresyge patienter med lav BMD i højere grad havde oplevet tidligere knoglebrud - samt havde en større risiko for nyt knoglebrud over de næste 3 til 5 år. Biokemiske markører for knoglesygdom kunne derimod ikke knyttes til tidligere eller fremtidige knoglebrud. Der blev ikke fundet holdepunkter for en stærk sammenhæng mellem afkalkning i knoglerne og graden af hjertekar-forkalkning.

Resultaterne understøtter, at CT-scanning kan benyttes til simultant at vurdere knogle-afkalkning og kar-forkalkning hos nyresyge patienter, og indikerer, at BMD kan benyttes til at vurdere risiko for knoglebrud - også ved kronisk nyresvigt.

Forsvaret af ph.d.-projektet er offentligt og finder sted den 24/11 kl. 14 i Auditorium B, Aarhus Universitet, Palle Juul-Jensens Boulevard 99, 8200 Aarhus N. Titlen på projektet er: "Bone density and biochemical markers in chronic kidney disease – mineral and bone disorder". Yderligere oplysninger: Ph.d.-studerende Hanne Skou Jørgensen, e-mail: hsjorgensen@clin.au.dk, tlf. +45 61655511.

Bedømmelsesudvalg: Professor Bente Lomholt Langdahl (Endokrinologisk afdeling, Aarhus Universitetshospital), Overlæge, PhD Lisbet Brandt (Kardiologisk, Nefrologisk og Endokrinologisk afdeling, Nordsjællands Hospital) og Professor Pieter Evenepoel (Nyremedicinsk Laboratorium, Leuven Universitet, Belgien).

Press release (English)

New knowledge about bone disease in chronic kidney disease

A ph.d.-project from Aarhus University, Health investigates bone density and the risk of fractures in patients with chronic kidney disease. The project was carried out by Hanne Skou Jørgensen, who is defending her dissertation on 24/11-2017.

In her ph.d.-project, Hanne Skou Jørgensen used computed tomography scans to assess bone density of spine and hip, as well as vascular calcifications of heart and aorta, in 157 kidney transplantation candidates with severe chronic kidney disease. Patients with chronic kidney disease suffer an increased risk of fractures, but there is no consensus on how to assess fracture risk in these patients. The primary aim was to investigate whether bone mineral density (BMD) could predict fractures in these patients. The study also considered biochemical markers of bone disease, and a possible link between bone disease and cardiovascular calcifications.

The study found that patients with reduced BMD were more likely to have suffered a previous fracture, and also at higher risk to sustain a new fracture during 3 to 5 years. Biochemical markers of bone disease were not related to previous or future fractures, and there did not seem to be a strong association between BMD and the degree of cardiovascular calcification.

These results support the use of computed tomography scans for the simultaneous evaluation of bone density and cardiovascular calcifications in kidney transplantation candidates, and suggests that BMD can be used to evaluate fracture risk in these patients.

The defence is public and takes place on the 24th of November at 2 pm in Auditorium B, Aarhus University Hospital, Palle Juul-Jensens Boulevard 99, 8200 Aarhus N. The title of the project is: "Bone density and biochemical markers in chronic kidney disease – mineral and bone disorder". For more information, please contact PhD student Hanne Skou Jørgensen, email: hsjorgensen@clin.au.dk, Phone +45 61655511.

Assessment committee: Professor Bente Lomholt Langdahl (Department of Endocrinology and Internal Medicine, Aarhus University Hospital), Chief consultant and PhD Lisbet Brandt (Department of Cardiology, Nephrology and Endocrinology, Nordsjællands Hospital), and Professor Pieter Evenepoel (Laboratory of Nephrology; Department of Immunology and Microbiology, University of Leuven, Belgium).

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