AARHUS UNIVERSITY

Press release

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Basic information

Name:

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Department of: Clinical Medicine

Main supervisor: Torben Bæk Hansen

Title of dissertation:
Evaluation of dual-mobility total hip arthroplasty in elderly patients with femoral neck fracture or hip osteoarthritis

Date for defence: March 1st at (time of day): 14.00 Place: Søauditorierne - Jeppe Vontillius Auditoriet (Bygning 1252, lok. 310), Århus Universitet, Wilhelm Meyers Allé, Århus

Press release (Danish)
Evaluering af dobbelt-mobilitet hofteprotese hos ældre patienter behandlet for brud på lårbenshalsen eller slidgigt i hoften

Dobbelt-mobilitet hofteproteser anvendes i behandlingen af brud på lårbenshalsen og hofte-revisionskirurgi, og i stigende grad ved primære operationer for slidgigt i hoften. Dobbelt-mobilitet hofteproteser har et smart design, som muliggør en større bevægelse i hofteleddet og mindsker risikoen for at den kunstige hofte kan gå af ud led. Dette er især en fordel for patienter med nedsat kompliance for mundtlige restriktioner vedrørende bevægeligheden i den kunstige hofte. Resultaterne fra fire studier er sammenfattet i et nyt ph.d.-projekt fra Aarhus Universitet, Health. Projektet er gennemført af Steffan Tábori Jensen, der forsvarer det d. 1/3-2019

Ph.d.-afhandlingen bidrager bl.a. med ny viden om funktionelle resultater, komplikationer, protesemigration og slid af plastikkomponenten i dobbelt-mobilitet hofteproteser. F.eks. viste resultaterne, at plastikkomponent blev mere slidt i dobbelt-mobilitet hofteskåle indsat uden knoglecement sammenlignet med cementerede hofteskåle. Behandling med dobbelt-mobilitet hofteprotesen var generelt forbundet med høj patienttilfredshed, gode funktionelle resultater og lav risiko for ledskred og reoperation. Et stereorøntgen-studie viste mere udtalt og kontinuerlig mikrobevægelse ved de ucementerede hofteskåle sammenlignet med cementerede hofteskåle to år efter operationen og dårligere forankring af ucementerede hofteskåle hos patienter med lav knoglekvalitet før operationen.
Resultaterne af ph.d. projektet støtter den fremadrettede kliniske brug af dobbelt-mobilitet hofteprotesedesignet med cementeret indsættelse hos ældre patienter med brud på lårbens-halsen eller slidgigt i hoften.

Forsvaret af ph.d.-projektet er offentligt og finder sted den 1/3 kl. 14.00 i Jeppe Vontilius auditorium, Aarhus Universitet, Wilhelm Meyers Allé, Århus.
Titlen på projektet er ”Evaluation of dual-mobility total hip arthroplasty in elderly patients with femoral neck fracture or hip osteoarthritis”.
Yderligere oplysninger: Ph.d.-studerende Steffan Tábori Jensen, e-mail: steffan.jensen@rm.dk, tlf. 31106067.

Bedømmelsesudvalg:
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Press release (English)

Evaluation of dual-mobility total hip arthroplasty in elderly patients with femoral neck fracture or hip osteoarthritis

Dual-mobility hip prostheses are used in the treatment of fracture of the femoral neck and hip-revision surgery, and increasingly in primary surgery for osteoarthritis of the hip. Dual-mobility hip prostheses have a design that allows for greater movement of the hip joint and reduces the risk of hip dislocation. This is especially beneficial for patients with reduced compliance for oral restrictions on the mobility of the artificial hip. The project was carried out by Steffan Tábori Jensen, who is defending his dissertation on March 1st 2019.

The PhD thesis contributes with new knowledge on functional outcome, complications, implant migration and wear of the plastic component in dual-mobility hip prostheses. Eg. the results showed that the plastic component became more worn in dual-mobility acetabular cups inserted without bone cement compared to cemented dual-mobility acetabular cups.
Treatment with dual-mobility hip replacement was generally associated with high patient satisfaction, good functional results, and low risk of dislocation and reoperation.
A radiostereometric study showed more pronounced and continuous micromovement in uncemented dual-mobility acetabular cups compared to cemented dual-mobility acetabular cups two years after surgery. Furthermore, uncemented dual-mobility acetabular cups showed poorer anchoring compared to cemented dual-mobility acetabular cups in patients with low bone quality prior to surgery.
The results of the PhD thesis supports the prospective clinical use of dual-mobility hip prosthesis with cemented actebular cup insertion in elderly patients with fracture of the femoral neck or osteoarthritis of the hip.

The defence is public and takes place on March 1st , 2019 at 2.00 PM in Jeppe Vontilius Auditorium, Aarhus University, Wilhelm Meyers Allé, Århus. The title of the project is Evaluation of dual-mobility total hip arthroplasty in elderly patients with femoral neck fracture or hip osteoarthritis.
For more information, please contact PhD student Steffan Tábori Jensen, email: steffan.jensen@rm.dk, Phone +45 31106067.

Assessment committee:
Consultant, Associate Professor, PhD Ole Rahbek (chairman and moderator of the defence)
Department of Orthopaedics, Aarhus University Hospital, Aarhus University

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