# Media release

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**Basic information**

Name: Polina Martinkevich Email: polina.martinkevich@gmail.com Phone: 23742514

Department of: Clinical Medicine

Main supervisor: Professor Bjarne Møller-Madsen

Title of dissertation: Outcomes after the calcaneal lengthening osteotomy with artificial bone graft in paediatric flatfoot surgery

Date for defence: 09.feb 2017 at (time of day): 15.00 Place: Lille Anatomisk Auditorium (room 424), Wilhelm Meyers Allé 3, buiilding 1231, 8000 Aarhus C

Media release (Danish)

Et nyt ph.d.-projekt fra Aarhus Universitet, Health har undersøgt om kunstigt knoglemateriale kan bruges til kirurgisk opretning af platfod lige så vel som knogle udtaget fra barnets hoftekam. Studiet har påvist at barnets egen knogle har bedst stabilitet. Projektet er gennemført af Læge Polina Martinkevich, der forsvarer det den 9. februar 2017 .

Hos børn med svær platfod kan kirurgisk opretning med forlængelse af hælbenet i få tilfælde være den sidste udvej til at genvinde eller opnå en normal gangfunktion. Denne teknik kræver ofte, at der udtages knoglemateriale fra barnets egen hoftekam til at forlænge hælbenet via en ostetomi. Grundet svære hoftesmerter efter kirurgi, har man tidligere forsøgt at overveje alternative knoglegrafter. Et af de lovende materialer, er calciumkeramik, som ville gøre det muligt at undgå det kirurgiske indgreb i hoften. I et klinisk randomiseret studie har læge Polina Martinkevich og resten af forskergruppen vist at calciumkeramik ikke kan bruges på lige fod med barnets egen hoftekam i denne type kirurgi. Som noget helt nyt, har de benyttet stereorøntgen til at måle på stabiliteten over tid og et spørgeskema, der måler livskvalitet hos børn med fod-ankellidelser. De præsenterer stereorøntgen som et præcist og mere informativt alternativ til konventionel røntgen i vurdering af opheling af osteotomier. Desuden bringer de nu læger et spørgskema, der gør det muligt at systematisere, hvordan børn oplever at deres fodlidelser påvirker livskvaliteten.

Forsvaret af ph.d.-projektet "Outcomes after the calcaneal lengthening osteotomy with artificial structural bone graft in paediatric flatfoot surgery" er offentligt og finder sted den 09/02 kl. 15 i Lille Anatomisk auditorium, lokale 424, bygning 1231, Aarhus Universitet, Wilhelm Meyers Allé 3, 8000 Aarhus C. Yderligere oplysninger: Ph.d.-studerende Polina Martinkevich, e-mail: polimart@rm.dk, tlf. 23 47 25 14

Media release (English)

New knowledge: Iliac crest autograft has greater stability than artificial bone graft in paediatric flatfoot surgery.

A new PhD project from the Danish Paediatric Orthopaedic Research group, Health, Aarhus University and Aarhus University Hospital investigated the stability of autograft vs. artifical bone by using RSA and found autograft to be of greater stability. The project was carried out by MD Polina Martinkevich, who is defending her dissertation on 09/02 2017.

MD Martinkevich and colleagues conducted a clinical randomised trial investigating the stability of iliac crest autograft versus calcium ceramics in a surgical procedure for correction of the paediatric flexible flatfoot. As something brand new, they used radiostereometry to assess the osteotomy stability and a health reported outcome measure, to assess the quality of life in children with foot and ankle disorders. They present radiostereometry as a more precise and informative tool to measure osteotomy stability than conventional X-rays. They also provide doctors with a new questionnaire, that targets children with foot and ankle disorders. This allows for systematic assessments of how these children are affected in their daily lives. The defence is public and takes place on 09/02 2017 at Lille Anatomisk Auditorium in room 424, building 1231 XX, Aarhus University, Road, City. The title of the project is "Outcomes after the calcaneal lengthening osteotomy with artificial structural bone graft in paediatric flatfoot surgery". For more information, please contact PhD student Polina Martinkevich, email: polimart@rm.dk, Phone +45 23742514

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