



Aalborg Universitet

AALBORG UNIVERSITY
DENMARK

The Rosenberg view can replace standardized coronal plane stress radiography in the diagnostic process for Uni-compartmental and Total knee replacements

Mortensen, Jacob; Kappel, Andreas; Rasmussen, Lasse; Østgaard, Svend Erik; Odgaard, Anders

Published in:
Abstracts - Oktober 2020

Creative Commons License
CC BY 4.0

Publication date:
2020

Document Version
Publisher's PDF, also known as Version of record

[Link to publication from Aalborg University](#)

Citation for published version (APA):

Mortensen, J., Kappel, A., Rasmussen, L., Østgaard, S. E., & Odgaard, A. (2020). The Rosenberg view can replace standardized coronal plane stress radiography in the diagnostic process for Uni-compartmental and Total knee replacements. In *Abstracts - Oktober 2020: DOS Bulletin* (pp. 95). Article 81 Dansk Ortopædisk Selskab. <https://ortopaedi.dk/abstractbog/2020/94/>

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal -

Take down policy

If you believe that this document breaches copyright please contact us at vbn@aub.aau.dk providing details, and we will remove access to the work immediately and investigate your claim.

The Rosenberg view can replace standardized coronal plane stress radiography in the diagnostic process for Uni-compartmental and Total knee replacements.

81.

Jacob Mortensen, Andreas Kappe, Lasse Rasmussen, Svend Erik Østgaard, Anders Odgaard

Orthopedic Department, Hip & Knee Unit, Gentofte Hospital; Orthopedic Department, Hip & Knee Unit, Aalborg University Hospital; Orthopedic Department, Hip & Knee Unit, Vejle Sygehus

Background: Choosing the optimal radiographic methods to diagnose knee osteoarthritis could save both the radiation and cost in the diagnostic process, when considering either a unicompartmental or total knee replacement.

Purpose / Aim of Study: To evaluate and compare the Rosenberg view and standardized varus/valgus stress radiography, this study measured joint space width by determining intra- and interrater agreement and test-retest reliability of radiographs in patients with knee osteoarthritis.

Materials and Methods: A prospective study, including 73 patients. Radiographs were taken with the Rosenberg view and coronal stress radiography with the Telos stress device. Repeated measurements were performed. Experienced knee surgeons performed measurements of joint space width (JSW) and minimal joint space width (mJSW). Three measurement rounds allowed for test-retest reliability and Intra- and Interrater agreement. Coronal stress measurements were compared to the Rosenberg view in the relevant corresponding compartment of the knee.

Findings / Results: A total of 12,264 measurements were performed. The radiographic methods proved substantial reliability. Among raters, Intra- and interrater agreement showed substantial to almost perfect agreement. A very strong correlation was observed in the medial knee compartment ($\rho = 0.91$; $CI = 0.84 - 0.95$; $p < 0.001$) when comparing JSW between the Rosenberg view and Varus stress. A Strong correlation was observed in the lateral knee compartment ($\rho = 0.83$; $CI = 0.71 - 0.89$; $p < 0.001$) when comparing mJSW between the Rosenberg view and Valgus stress.

Conclusions: The Rosenberg view can replace 20° coronal valgus-varus stress radiography, saving the cost of equipment, additional radiographs, specialized staff, and time to set up the device, and potentially increasing hospital cost-effectiveness.