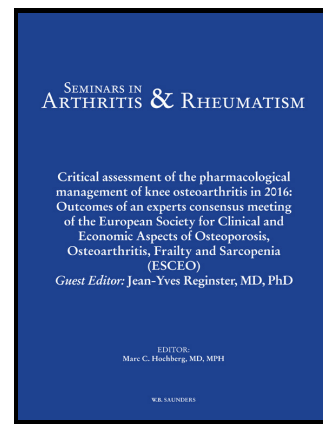


Author's Accepted Manuscript

Methods for segmentation of rheumatoid arthritis bone erosions in high-resolution peripheral quantitative computed tomography (HR-pQCT)

Camille P. Figueiredo, Arnd Kleyer, David Simon, Fabian Stemmler, Isabelle d'Oliveira, Anja Weissenfels, Oleg Museyko, Andreas Friedberger, Axel J. Hueber, Judith Haschka, Matthias Englbrecht, Rosa M.R. Pereira, Juergen Rech, Georg Schett, Klaus Engelke



PII: S0049-0172(17)30311-6
DOI: <http://dx.doi.org/10.1016/j.semarthrit.2017.09.011>
Reference: YSARH51243

To appear in: *Seminars in Arthritis and Rheumatism*

Cite this article as: Camille P. Figueiredo, Arnd Kleyer, David Simon, Fabian Stemmler, Isabelle d'Oliveira, Anja Weissenfels, Oleg Museyko, Andreas Friedberger, Axel J. Hueber, Judith Haschka, Matthias Englbrecht, Rosa M.R. Pereira, Juergen Rech, Georg Schett and Klaus Engelke, Methods for segmentation of rheumatoid arthritis bone erosions in high-resolution peripheral quantitative computed tomography (HR-pQCT), *Seminars in Arthritis and Rheumatism*, <http://dx.doi.org/10.1016/j.semarthrit.2017.09.011>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting galley proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Methods for segmentation of rheumatoid arthritis bone erosions in high-resolution peripheral quantitative computed tomography (HR-pQCT)

Camille P Figueiredo,^{1,2*} MD, PhD; Arnd Kleyer,^{1*} MD; David Simon,^{1*} BMed.; Fabian Stemmler,¹ BEng.; Isabelle d'Oliveira,¹ MD; Anja Weissenfels,³ MA; Oleg Museyko,³ PhD; Andreas Friedberger,³ MSc; Axel J Hueber,¹ MD, PhD; Judith Haschka,^{1,4} MD; Matthias Englbrecht,¹ Diplo.-Psych.Univ.; Rosa M.R. Pereira,² MD, PhD; Juergen Rech,¹ MD; Georg Schett,¹ MD; Klaus Engelke,³ PhD.

* CPF, AK and DS contributed equally to this paper.

¹Department of Internal Medicine 3, Friedrich-Alexander-University Erlangen-Nuremberg (FAU), Erlangen, Germany; ²Bone Metabolism Laboratory, Rheumatology Division, Faculdade de Medicina da Universidade de São Paulo, São Paulo, Brazil, ³Institute of Medical Physics (IMP), Friedrich-Alexander-University Erlangen-Nuremberg (FAU), Erlangen, Germany, ⁴St. Vincent Hospital, Medical Department II, VINFORCE Study Group, Academic Teaching Hospital of Medical University of Vienna, Vienna, Austria.

Correspondence to: Klaus Engelke, PhD, Institute of Medical Physics – University of Erlangen-Nürnberg, Henkestrasse 91, 91052 Erlangen-Germany, Tel: +49 9131 8522829, Fax: +49 9131 8522824, klaus.engelke@imp.uni-erlangen.de.

Abbreviations: RA: Rheumatoid Arthritis, ACPA: Anti-cyclic Citrullinated Peptide Antibody, HR-pQCT: High-resolution peripheral Quantitative Computed Tomography, MCP: Metacarpophalangeal, mESE: modified Evaluation Script for Erosions, MIAF: Medical Image Analysis Framework, X-ray: conventional Radiography, BMD: Bone Mineral Density, DAS-28: Disease Activity Score 28, RF: Rheumatoid Factor, SPECTRA: Study Group for Xtreme Computed Tomography in Rheumatoid Arthritis), DICOM: Digital Imaging and Communications in Medicine, ISQ: Image Sequence (MicroCT image), VOI: Volumes of Interest, SD: Standard Deviation, IQR: Interquartile Range, ICC: Intra-class correlation coefficient, CI: Confidence Interval, DMARD: disease modifying anti-rheumatic drugs, LOA: Limits of agreement, PIP: Proximal Interphalangeal joints.

Download English Version:

<https://daneshyari.com/en/article/8623778>

Download Persian Version:

<https://daneshyari.com/article/8623778>

[Daneshyari.com](https://daneshyari.com)