



Conversion from MRI to CT Using AI for Fractures

SHORT ABSTRACT

FREDERIEK LALOO 

LENNART JANS 

**Author affiliations can be found in the back matter of this article*

]u[ubiquity press

ABSTRACT

Synthetic CT images reconstructed from MR images is an upcoming artificial intelligence (AI) tool for radiologists. It has been validated for detection of erosions at the sacroiliac joints and validation for other applications is ongoing – with high expectations. The technique uses deep learning, a subtype of machine learning, to reconstruct the images. By adding one MR sequence and some automated postprocessing, the radiologist obtains synthetic CT images which can be multiplanar reformatted. One of the main applications will likely be the more detailed evaluation of fractures on MRI. Once validated, the possibilities can be numerous – for example, to evaluate an incidental fracture during MR scanning or to evaluate fractures whilst avoiding radiation in pediatric patients. The latest data on synthetic CT for fractures will be discussed, based on available literature, ongoing studies, and experience at Ghent University Hospital.

CORRESPONDING AUTHOR:

Frederiek Laloo

Ghent University Hospital, BE

Frederiek.Laloo@gmail.com

KEYWORDS:


AI; Synthetic CT; MRI; fractures


Laloo F, Jans L. Conversion from MRI to CT Using AI for Fractures. *Journal of the Belgian Society of Radiology*. 2021; 105(1): 65, 1–2. DOI: <https://doi.org/10.5334/jbsr.2630>

COMPETING INTERESTS

The authors have no competing interests to declare.

AUTHOR AFFILIATIONS

Frederiek Laloo  orcid.org/0000-0002-7785-8756
Ghent University Hospital, BE

Lennart Jans  orcid.org/0000-0002-7909-2643
Ghent University Hospital, BE

TO CITE THIS ARTICLE:

Laloo F, Jans L. Conversion from MRI to CT Using AI for Fractures. *Journal of the Belgian Society of Radiology*. 2021; 105(1): 65, 1–2.
DOI: <https://doi.org/10.5334/jbsr.2630>

Submitted: 15 August 2021 Accepted: 10 September 2021 Published: 19 November 2021

COPYRIGHT:

© 2021 The Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC-BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. See <http://creativecommons.org/licenses/by/4.0/>.

Journal of the Belgian Society of Radiology is a peer-reviewed open access journal published by Ubiquity Press.