

Accepted Manuscript

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PII: S0720-048X(18)30141-4
DOI: <https://doi.org/10.1016/j.ejrad.2018.04.015>
Reference: EURR 8162

To appear in: *European Journal of Radiology*

Received date: 3-1-2018
Revised date: 1-4-2018
Accepted date: 12-4-2018

Please cite this article as: Zhao Xue-Mei, Wang Man, Wu Run-Ze, Dharaiya Ekta, Feng Feng, Li Ming-Li, You Hui, Wang Yun, Jin Zheng-Yu, Wang Yi-Ning. Dual-layer spectral detector CT monoenergetic reconstruction improves image quality of non-contrast cerebral CT as compared with conventional single energy CT. *European Journal of Radiology* <https://doi.org/10.1016/j.ejrad.2018.04.015>

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Dual-layer spectral detector CT monoenergetic reconstruction improves image quality of non-contrast cerebral CT as compared with conventional single energy CT

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Abstract

Purpose: To investigate and compare image quality of monoenergetic reconstructions from spectral NCCT to conventional 120kVp images acquired at a similar dose.

Materials and methods: Patients undergoing NCCT on a dual-layer spectral detector CT (n = 30) and a conventional CT (n = 30) were enrolled in the study. The spectral detector CT data was reconstructed at monoenergetic images from 40-140keV in 5-

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