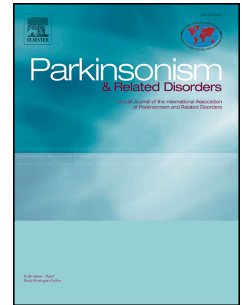


Accepted Manuscript

MR findings in the substantia nigra on phase difference enhanced imaging in neurodegenerative parkinsonism

Atsuhiko Sugiyama, Noriko Sato, Yukio Kimura, Miho Ota, Tomoko Maekawa, Daichi Sone, Mikako Enokizono, Miho Murata, Hiroshi Matsuda, Satoshi Kuwabara



PII: S1353-8020(17)30847-7

DOI: [10.1016/j.parkreldis.2017.12.021](https://doi.org/10.1016/j.parkreldis.2017.12.021)

Reference: PRD 3511

To appear in: *Parkinsonism and Related Disorders*

Received Date: 16 February 2017

Revised Date: 12 December 2017

Accepted Date: 18 December 2017

Please cite this article as: Sugiyama A, Sato N, Kimura Y, Ota M, Maekawa T, Sone D, Enokizono M, Murata M, Matsuda H, Kuwabara S, MR findings in the substantia nigra on phase difference enhanced imaging in neurodegenerative parkinsonism, *Parkinsonism and Related Disorders* (2018), doi: 10.1016/j.parkreldis.2017.12.021.

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 proof before it is published in its final 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.

Full-length Article

MR findings in the substantia nigra on phase difference enhanced imaging in neurodegenerative parkinsonism

Atsuhiko Sugiyama,^{1,2} Noriko Sato,^{1,*} Yukio Kimura,¹ Miho Ota,³ Tomoko Maekawa,¹
Daichi Sone,⁴ Mikako Enokizono,¹ Miho Murata,⁵ Hiroshi Matsuda,³ Satoshi
Kuwabara²

¹Department of Radiology, National Center of Neurology and Psychiatry, Tokyo, Japan

²Department of Neurology, Graduate School of Medicine, Chiba University, Chiba,
Japan

³Department of Mental Disorder Research, National Institute of Neuroscience, National
Center of Neurology and Psychiatry, Tokyo, Japan

⁴Integrative Brain Imaging Center, National Center of Neurology and Psychiatry, Tokyo,
Japan

⁵Department of Neurology, National Center of Neurology and Psychiatry, Tokyo, Japan

***Corresponding author:** Dr. Noriko Sato, Department of Radiology, National Center

Download English Version:

<https://daneshyari.com/en/article/8285511>

Download Persian Version:

<https://daneshyari.com/article/8285511>

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