Reviewer’s report

Title: Ultra high-field SWI of the substantia nigra at 7T: reliability and consistency of the swallow-tail sign

Version: 0 Date: 24 Mar 2017

Reviewer: Michael Schocke

Reviewer's report:

The authors performed SWI at 7T in 13 healthy adults in order to validate the presence of the swallow tail sign within the substantia nigra. The technical aspects sound fine. Nevertheless, I have some concerns:

- Such a study which tries to validate this sign in a normal healthy control should include markers of prodromal PD such as olfactory function or nigral hyperechogenicity or DAT-SPECT to exclude that the subjects have prodromal PD (Berg et al. Mov Disord. 2015 Oct;30(12):1600-11. doi: 10.1002/mds.26431)

- Two studies have not been discussed in the paper, one is a very recent meta-analysis (Mov Disord. 2017 Feb 2. doi: 10.1002/mds.2693-2), the other the largest study published so far (Mov Disord. 2015 Jul;30(8):1068-76. doi: 10.1002/mds.26171).

- Interestingly, figure 2 D shows the dorsolateral nigral hyperintensity at both sides. Moreover, figure 2 F seems to have dorsolateral nigral hyperintensity also at the right side - however there are artifacts. I believe that the authors should re-evaluate their images.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes
Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

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