scientific data



OPEN Author Correction: Open-access quantitative MRI data of the spinal cord and reproducibility across participants, sites and manufacturers

Published online: 23 September 2021

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Correction to: Scientific Data https://doi.org/10.1038/s41597-021-00941-8, published online 16 August 2021

In the original version of this Data Descriptor, the Figure 4 legend was a duplicate of the Figure 3 legend. The Figure 4 legend has now been corrected to read as follows in both the PDF and HTML versions of the Data Descriptor:

Examples of image artifacts: (a) T1w MPRAGE taken in the same participant (from the single subject database) at two different sites on a Siemens Prisma: oxfordFmrib (left) and juntendoPrisma (right). The slightly larger cervical lordosis on the left likely induced more pronounced cerebrospinal fluid (CSF) flow and SC motion resulting in the artifact shown in the axial view. (b) T2w scans showing signal drops in the CSF likely due to a poorly-recovered CSF signal combined with flow effects. These two participants (beijingVerio01 and strasbourg03), were acquired with a flip angle of 180° instead of the recommended 120°, which likely explained the presence of those artifacts (longer TR was required for sufficient T1 recovery). (c) Axial view of ME-GRE scans with (fslAchieva04, 1st row) and without motion (brnoCeitec01, 2nd row), and axial view of GRE-MT0 with (fslAchieva04, 3rd row) and without motion (barcelona04, 4th row). (d) Mean DWI scan from a Philips site (ubc02, left panel) with a concatenated acquisition wherein odd slices are acquired during the first half of the entire acquisition (spanning all b-vectors) and the even slices are acquired during the second half. In the event of participant motion between those two acquisition sub-sets, apparent motion will be visible between the odd and even slices. When odd and even slices are acquired closer in time (in ascending/descending mode, or interleaved but sequentially within the

same b-vector), this artifact is not visible (mountSinai03, right panel). Such an artifact could be problematic for image registration with regularization along the S-I axis, or for performing diffusion tractography. (e) b=0 image from a DWI scan (perform02) acquired with poor shimming and resulting signal dropout. (f) Another example of poor shimming resulting in sub-efficient fat saturation, with the fat being aliased on top of the SC. Here we show the mean DWI scan of a participant from the single subject database (perform). (g) Effect of pulsatile movement on a non-cardiac gated acquisition (single subject, juntendoAchieva). Diffusion-weighted scans (sagittal view) acquired at three b-vecs fairly orthogonal to the SC (i.e., diffusion-specific signal attenuation should be minimum in the SC), showing abrupt signal drop at a few slices (red arrows), likely due to cardiac-related pulsatile effects.

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