



**Supplementary Fig. 2.** The region of interest for normalization of quantitative susceptibility mapping is placed in the region of the decussation of the superior cerebellar peduncle (curved arrow), which is below the substantia nigra (arrowheads) and localized by using 3D sagittal MP-RAGE imaging. Note that the black and white in the QSM images are inverted. MP-RAGE: magnetization-prepared rapid gradient-echo, QSM: quantitative susceptibility mapping.