

Figure S1 The spectra analysis between ipsilateral striatum (left column) and contralateral (right column). (A,B) A 5-pool Lorentzian fitting of Z-spectra from contralateral 1 and contralateral 2, the top panel, including saturation transfer from -3.5, 2, 3.5 ppm as direct saturation and MT contributions. (C,D) The bottom panels are MTR_{Rex}^{5L} from contralateral 1 (cortex) and contralateral 2 (striatum). (E) The fitted water and MT effects are subtracted from the raw Z-spectra, showing apparent CEST contrast between contralateral 1 and contralateral 2 tissues at amide (3.5 ppm) and guanidinium (2 ppm). (F) The T_{2w} image marked with a contralateral 1 ROI and contralateral 2 (striatum) ROI for a spectral analysis. NOE, nuclear Overhauser enhancement, MT, magnetization transfer; CEST, chemical exchange saturation transfer; ROI, region of interest.

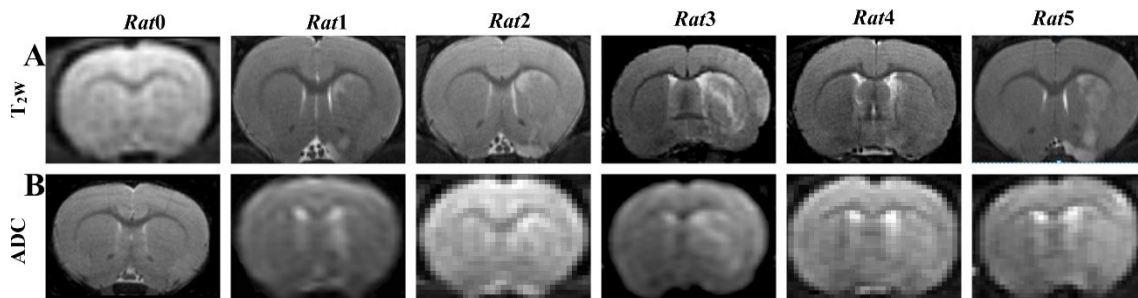


Figure S2 Multi-parametric maps used in this study. (A) T_{2w} (B) ADC, in a representative normal rat brain (Rat0) and for all stroke rats (from Rat1 to Rat5). ADC, apparent diffusion coefficient.

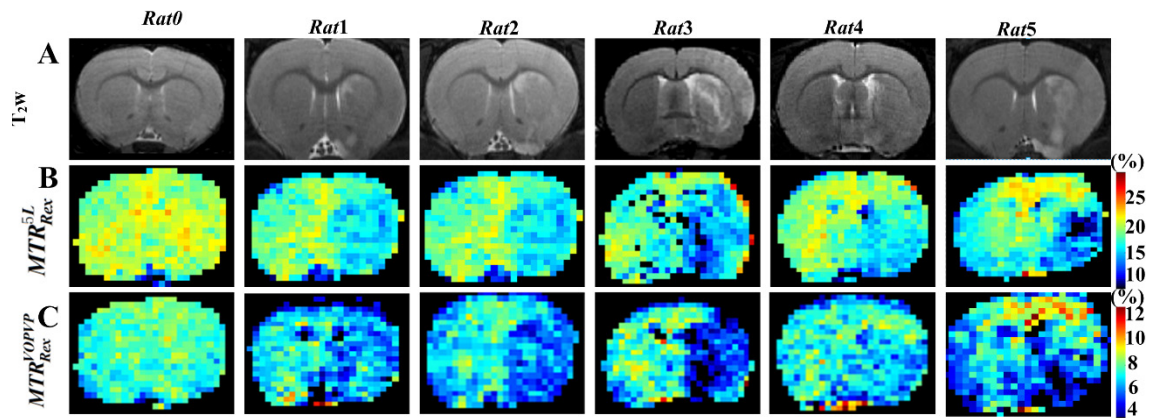


Figure S3 Multi-parametric maps used in this study. (A) T_{2w} as well as contrast maps at 3.5 ppm using a pixel-by-pixel fitted by (B) MTR_{Rex}^{5L} , (C) MTR_{Rex}^{VOPVP} , at 3.5 ppm, in a representative normal rat brain (Rat0) and for all stroke rats (from Rat1 to Rat5).

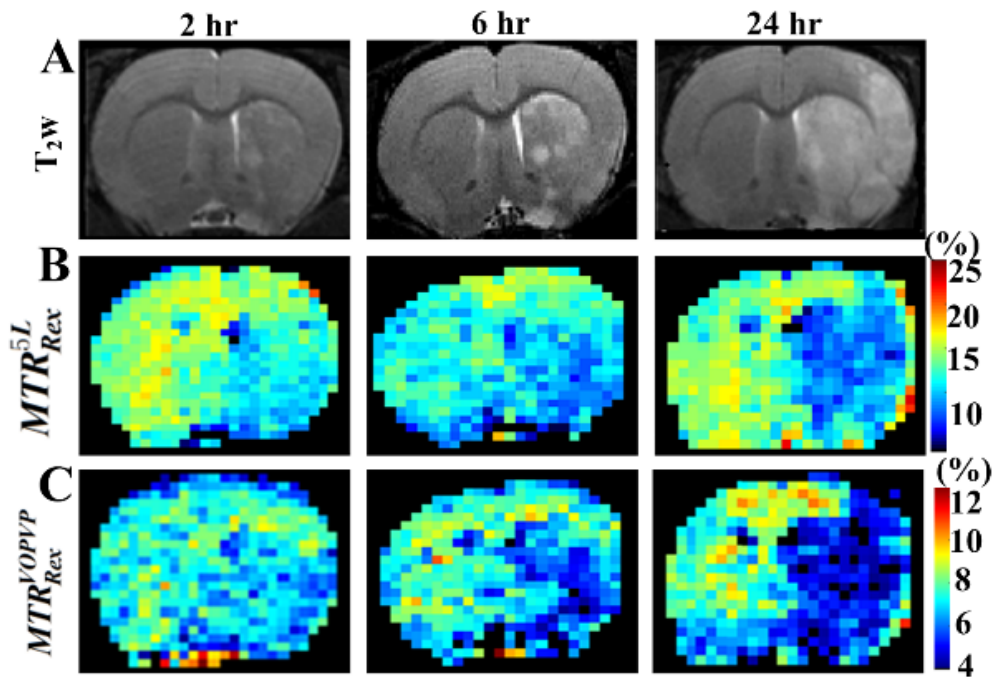


Figure S4 Multi-parametric maps used in this study. (A) T_{2w} , pixel-by-pixel fitted using (B) MTR_{Rex}^{5L} , (C) MTR_{Rex}^{VOPVP} , at 3.5 ppm at different times after a stroke from a representative rat.

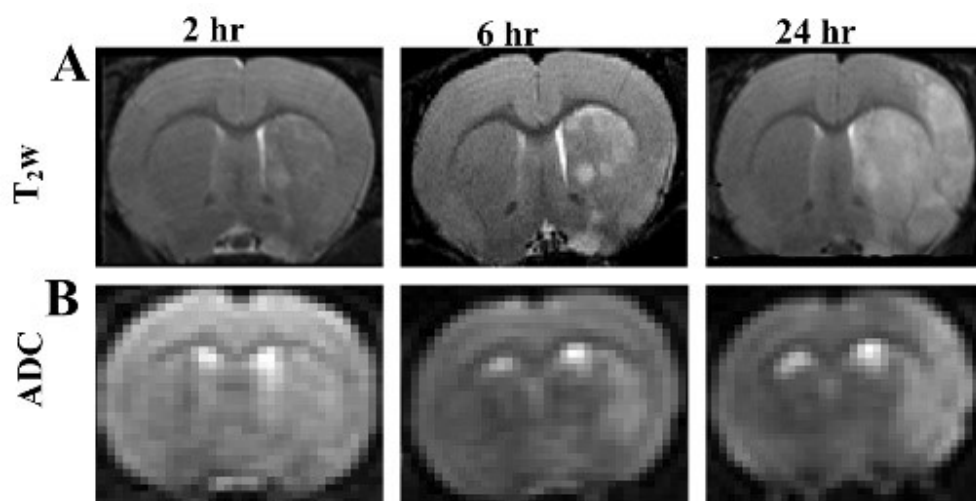


Figure S5 Multi-parametric maps used in this study. (A) T_{2w}, (B) ADC at different times after a stroke from a representative rat. ADC, apparent diffusion coefficient.