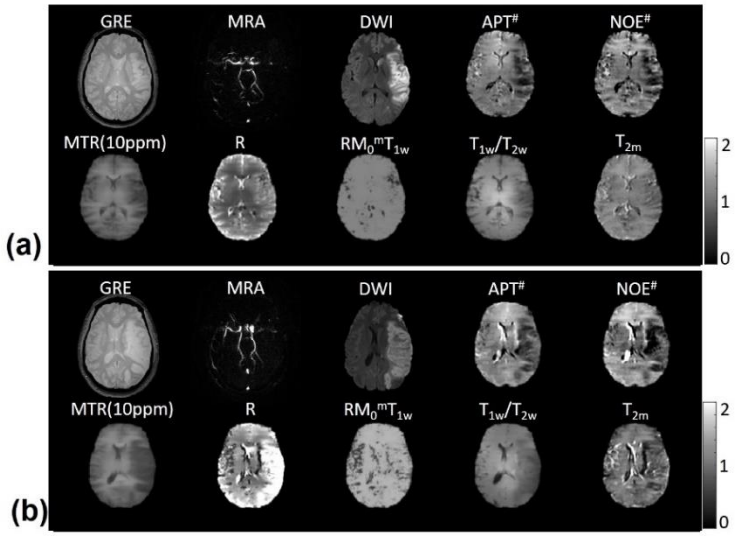
Supporting Table S1

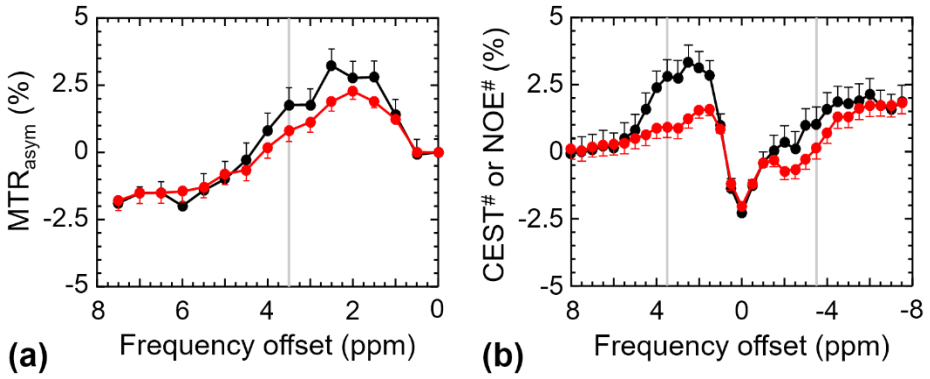
Mean signal intensities (%) of the normal and acidic ischemic areas for a representative patient corresponding to Fig. 2 (mean ± STD)

Time after last seen normal	MTR(10ppm)	MTR_{asym}(3.5ppm)	APT[#]	NOE[#]
At 6 hr 40 min	28.7 ± 3.9 vs. 27.3 ± 4.4	0.76 ± 0.5 vs. 0.03 ± 0.2	**2.93 ± 1.1** **vs. 1.17 ± 0.3**	**2.17 ± 1.2** **vs. 1.14 ± 0.3**
At 1 day	29.7 ± 5.2 vs. 26.2 ± 2.8	0.82 ± 0.2 vs. 0.36 ± 0.2	**2.95 ± 1.2** **vs. 1.02 ± 0.5**	**2.12 ± 1.1** **vs. 0.66 ± 0.5**
At 1 week	**32.4 ± 3.5** **vs. 17.5 ± 2.6**	0.32 ± 0.2 vs. 0.16 ± 0.9	**3.04 ± 0.2** **vs. 1.71 ± 0.6**	**2.73 ± 0.3** **vs. 1.55 ± 0.5**

Bold: Differences were found significant ($p < 0.05$).



Supporting Fig. S1. Conventional, APT#, NOE#, and MT-related MR images of a representative acute stroke patient with left MCA occlusion at < 7 hrs (a) and 1 week (b). APT#, NOE#, MTR(10ppm), R, RM_0mT_{1w}, T_{1w}/T_{2w} and T_{2m} images were normalized by the mean value of the contralateral normal appearing white matter. There were obvious APT and NOE image contrasts at the early time point, at which the image contrasts of the MT-related images were negligible (a). In contrast, although APT and NOE image contrasts remained almost unchanged, the MT-related images show some contrast at 1 week time point (b).



Supporting Fig. S2. (a) Average MTR_{asym} and (b) $APT^{\#}$ and $NOE^{\#}$ signals obtained from the contralateral normal (black) and the ischemic lesion (red) from twenty acute stroke patients at < 1 day from symptom onset.