On-line Table 1: Kurtosis and conventional diffusion metric values in the solid region of the tumor and the contralateral NAWM ${ }^{\text {a }}$

| Region | MK | AK | RK | FA | MD | ADC |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| LGMs | $0.88(0.81 \sim 0.94)$ | $0.80(0.72 \sim 0.85)$ | $0.93(0.85 \sim 0.99)$ | $0.20(0.14 \sim 0.30)$ | $1.44(1.14 \sim 1.55)$ | $0.73(0.67 \sim 0.82)$ |
| HGMs | $1.02(0.91 \sim 1.08)$ | $0.90(0.81 \sim 0.96)$ | $1.08(0.97 \sim 1.16)$ | $0.19(0.16 \sim 0.29)$ | $1.32(1.12 \sim 1.44)$ | $0.63(0.60 \sim 0.71)$ |
| NAWM | $1.01(0.98 \sim 1.05)$ | $0.85(0.83 \sim 0.87)$ | $1.10(1.08 \sim 1.15)$ | $0.36(0.35 \sim 0.38)$ | $1.42(1.14 \sim 1.54)$ | $0.60(0.59 \sim 0.63)$ |
| $P$ value | .001 | .001 | .001 | .925 | .116 | .003 |

Note:-NAWM indicates normal-appearing white matter.
${ }^{\text {a }}$ Data are medians, with interquartile ranges in parentheses.

## On-line Table 2: Interobserver variability in measurements of meningiomas

| Region/Metrics | Intraclass Correlation Coefficient, $95 \%$ CI for Interobserver |
| :--- | :---: |
| Solid region of the tumor | $0.983,0.969-0.990$ |
| MK | $0.979,0.963-0.989$ |
| AK | $0.957,0.923-0.976$ |
| RK | $0.984,0.971-0.991$ |
| MD | $0.993,0.987-0.996$ |
| FA | $0.801,0.603-0.892$ |
| ADC |  |
| NAWM | $0.986,0.975-0.992$ |
| MK | $0.929,0.873-0.961$ |
| AK | $0.907,0.833-0.948$ |
| RK | $0.947,0.905-0.971$ |
| MD | $0.827,0.688-0.904$ |
| FA | $0.984,0.970-0.991$ |
| ADC |  |

Note:-NAWM indicates normal-appearing white matter.
On-line Table 3: Comparisons of AUCs among normalized MK, AK, RK, FA, MD, and ADC (part 1)

| Comparison | Statistic | MK-AK | MK-RK | MK-FA | MK-MD | MK-ADC |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| LGMs-HGMs | $P$ | .683 | .221 | $.002^{\mathrm{a}}$ | $.038^{\mathrm{a}}$ | .135 |
|  | $Z$ | 0.409 | 1.223 | 3.101 | 2.080 |  |

Note:-AUC indicates area under the curve.
${ }^{\text {a }}$ Significant.

On-line Table 4: Comparisons of AUCs among normalized MK, AK, RK, FA, MD, and ADC (part 2)

| Comparison | Statistic | AK-RK | AK-FA | AK-MD | AK-ADC | RK-FA |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| LGMs-HGMs | $P$ | .740 | $<.001^{\text {a }}$ | .076 | .204 | $.007^{\text {a }}$ |
|  | $Z$ | 0.332 | 3.533 | 1.776 | 1.271 | 2.712 |

Note:-AUC indicates area under the curve.
${ }^{\text {a }}$ Significant.
On-line Table 5: Comparisons of AUCs among normalized MK, AK, RK, FA, MD, and ADC (part 3)

|  | Statistic | RK-MD | RK-ADC | FA-MD | FA-ADC | MD-ADC |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| LGMs-HGMs | $P$ | .197 | .456 | $.021^{a}$ | $.019^{a}$ | 2.340 |

Note:-AUC indicates area under the curve.
${ }^{a}$ Significant.


ON-LINE FIGURE. Protocols for resizing the enhanced TI FSPGR image to match the DKI metric maps. A, The slice number of enhanced TI FSPGR should be changed to 48 without interpolation. B, The ROI was semiautomatically delineated in the enhanced TI FSPGR image. C, Finally, the ROI was copied to the DKI metric maps.

