

Supplementary Table 1. Quantitative MRI parameters (ADC, DTI, DKI) in two representative PMA Cases with distinct consistencies

Tumor	T1+C	ADC	DTI-FA	DTI-MD	DKI-MD	DKI-MK
Soft PMA	668	551.006mm ² /s	0.100	358.097mm ² /s	583.023mm ² /s	1.268
Hard PMA	750	512.735mm ² /s	0.096	367.434mm ² /s	568.579mm ² /s	1.302

Values represent mean measurements extracted from tumor regions of interest placed on the solid enhancing portion of each lesion (avoiding cystic, hemorrhagic, necrotic areas and major vessels when present) and co-registered across diffusion maps. T1+C indicates post-contrast T1-weighted signal intensity (arbitrary units). ADC: apparent diffusion coefficient derived from mono-exponential DWI ($\times 10^{-6}$ mm²/s). DTI-FA: fractional anisotropy (unitless). DTI-MD: mean diffusivity from diffusion tensor imaging ($\times 10^{-6}$ mm²/s). DKI-MD, mean diffusivity from diffusion kurtosis imaging ($\times 10^{-6}$ mm²/s). DKI-MK, mean kurtosis (unitless). Higher ADC/MD generally reflects more facilitated water diffusion, whereas higher MK reflects greater microstructural complexity/non-Gaussian diffusion, which may be associated with fibrous/collagen-rich tumor stroma. MRI, magnetic resonance imaging; ADC, apparent diffusion coefficient; DTI, diffusion tensor imaging; DKI, diffusion kurtosis imaging; PMA, pituitary macroadenoma; T1+C, contrast-enhanced T1-weighted imaging; FA, fractional anisotropy; MD, mean diffusivity; MK, mean kurtosis; DWI, diffusion-weighted imaging.