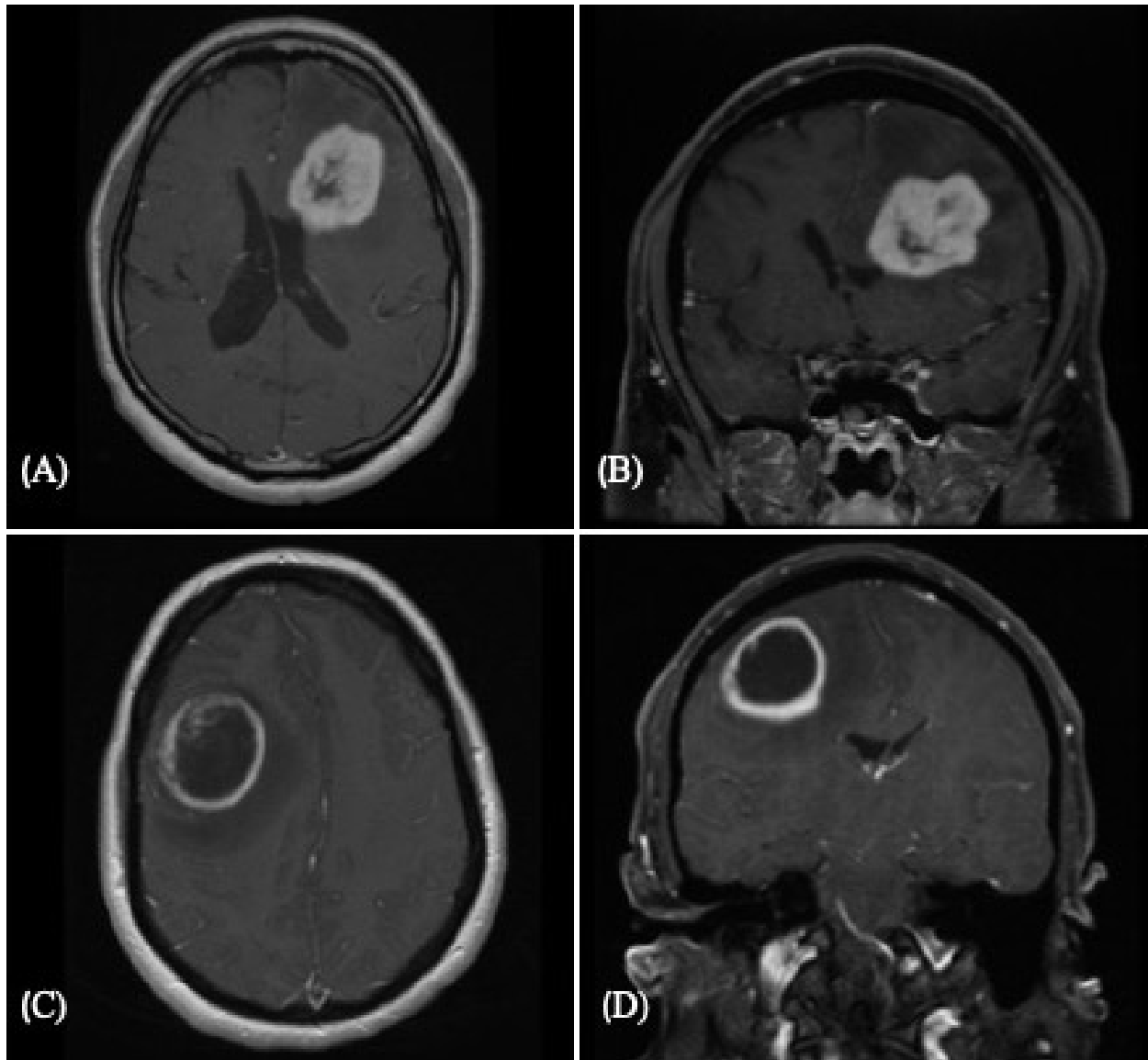
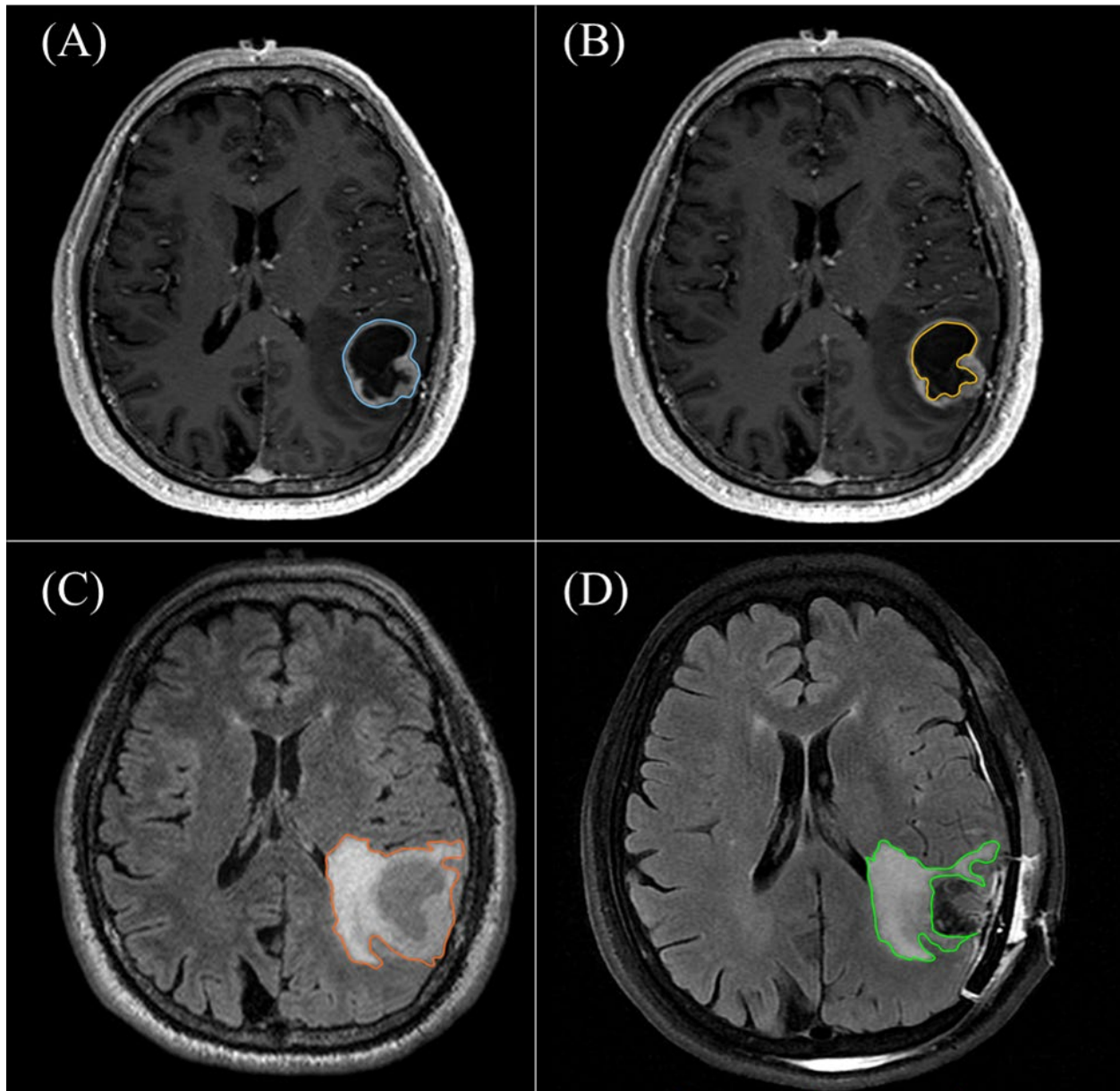


544 Supplementary material:
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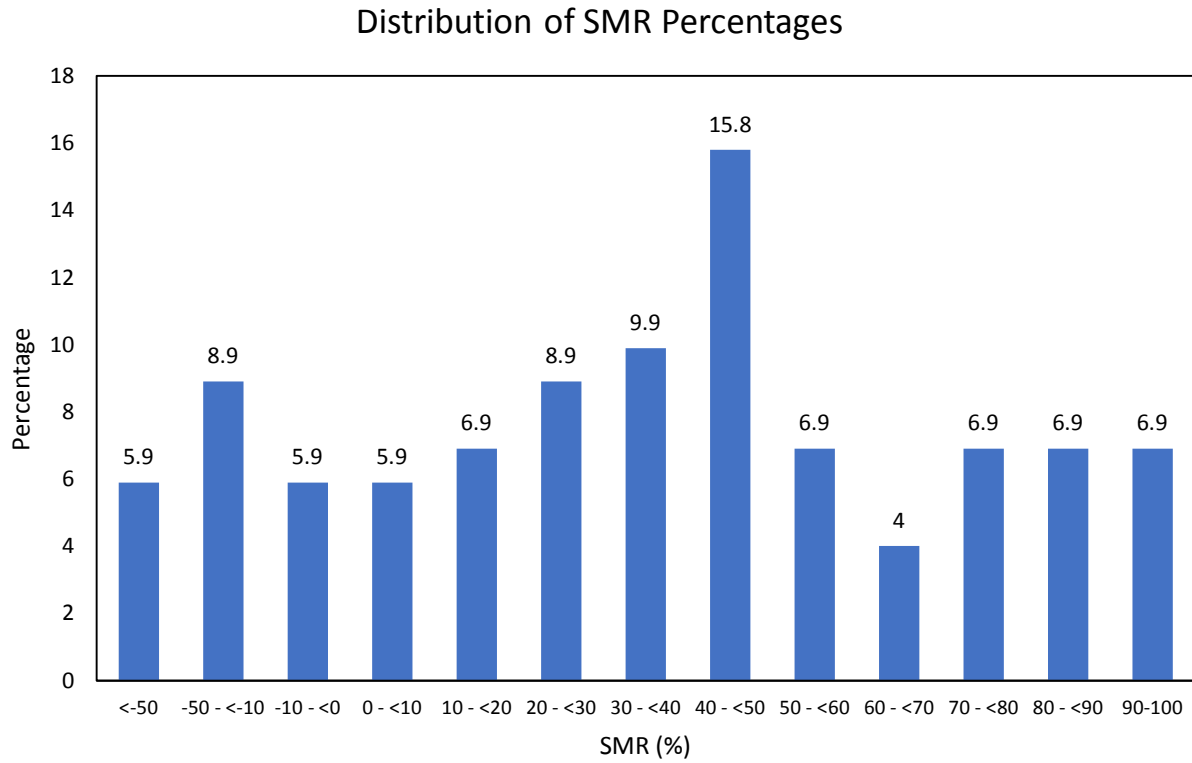


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550 **Supplementary Figure 1:** Location of the tumor in relation to the lateral ventricles (LV). **A & B,**
551 T1-weighted post-contrast MR images, axial and coronal view respectively, showing CE tumor
552 bordering the LV. **C & D,** T1-weighted post-contrast MR images, axial and coronal view
553 respectively.

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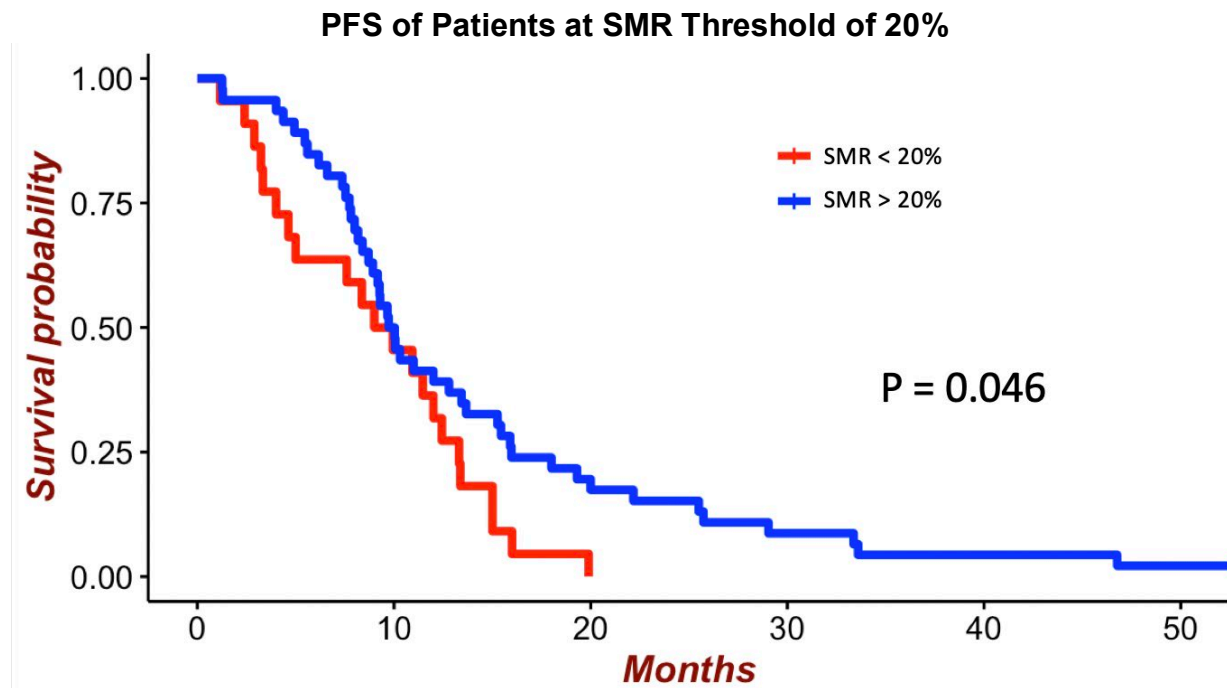
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Supplementary Figure 2: Illustration of the Region of interest (ROI) for each volumetric measurement. (A) Contrast-enhancing ROI (blue) on pre-operative MRI axial T1 post-contrast sequence. (B) Cystic/Necrosis ROI (yellow) on pre-operative MRI axial T1 post-contrast sequence. (C) FLAIR ROI (orange) on pre-operative MRI axial FLAIR sequence. (D) FLAIR ROI (green) on post-operative MRI axial FLAIR sequence.



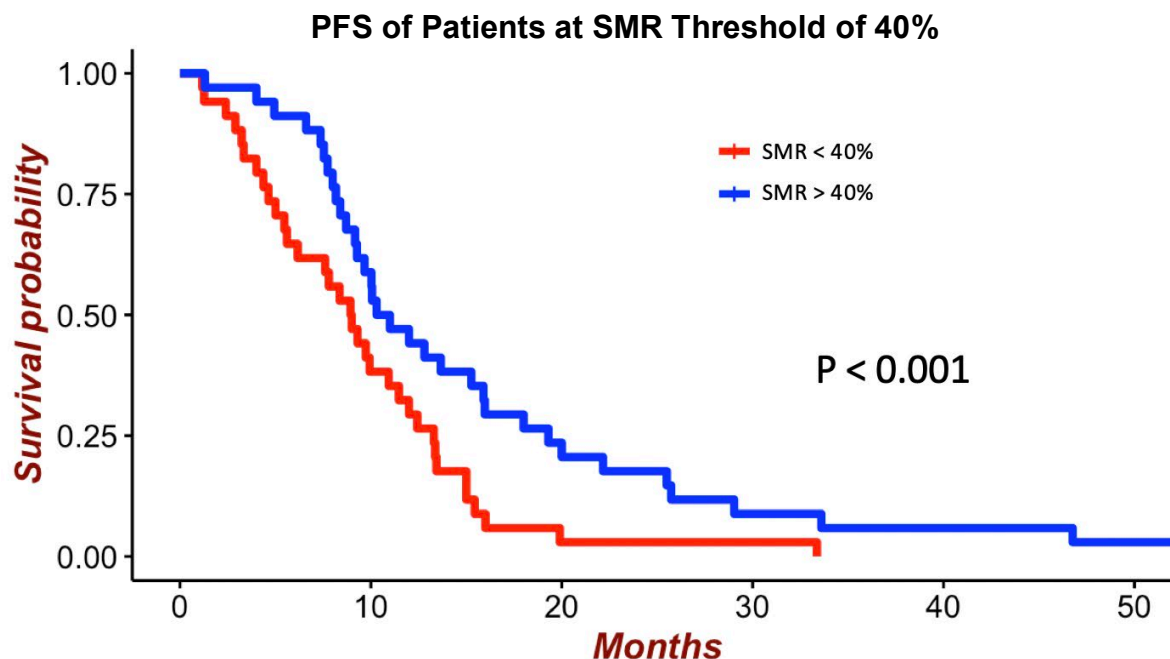
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575 **Supplementary Figure 3:** Histogram showing distribution of SMR percentages in our cohort.

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580 **Supplementary Figure 4:** PFS by SMR threshold of 20% among patients with GBM with GTR
581 of the CE. The mean PFS for patients receiving <20% SMR was 8.7 months compared to 9.6
582 months for >20% SMR patients (**P = 0.046**).

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585 **Supplementary Figure 5:** PFS by SMR threshold of 40% among patients with GBM with GTR
 586 of the CE. The mean PFS for patients receiving <40% SMR was 8.9 months compared to 10.6
 587 months for >40% SMR patients (**P < 0.001**).

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Supplementary table 1: Univariate Analysis of SMR (%) by Location

Variable	Yes	No	p Value
Deep-seated	24.8%	31.9%	0.50
Non-Eloquent	30.0%	26.4%	0.73

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Supplementary Table 2: Univariate Analysis of SMR and PFS

Variable	HR (95% CI)	p Value
% SMR on T2-weighted FLAIR		
1% Increments	1.00 (0.99 – 1.01)	0.38
10% Increments	0.92 (0.85 – 0.99)	0.04
> 20%	0.58 (0.34 – 0.99)	0.05
> 30%	0.50 (0.30 – 0.85)	0.01
> 40%	0.52 (0.31 – 0.86)	0.01
> 50%	0.64 (0.38 – 1.06)	0.08
Age		
≥ 65 yrs	2.34 (1.31 – 4.19)	<0.01
Gender		
Male sex	0.87 (0.52 – 1.45)	0.59
MGMT		
Promoter methylation	0.61 (0.48 - 0.94)	0.04
KPS		
>70	0.48 (0.24 – 0.86)	0.03
Charlson Comorbidity Index	1.20 (1.01 – 1.43)	0.03

590 Boldface type indicates statistical significance ($p < 0.05$).