

Supplementary Table S1. Adapted BT-RADS scoring system lexicon [8] with their descriptions and associated management recommendations

Score	Title	Sub score	Description	Associated management recommendation
0	Not scored		New baseline, incomplete study, or otherwise unable to categorize	Continued follow-up, no change
1	Imaging improvement	1a – Improvement	Improvement in imaging finding suspected to reflect decreasing tumor burden and/or improving treatment effect	Continued follow-up, no change
		1b – Medication effect	Improvement in imaging finding potentially due to effect from medication such as increasing steroid initiating avastin	Continued follow-up, no change
2	No change	No appreciable change from prior		Continued follow-up, no change
3	Imaging Worsening	3a – Favor treatment effect	Worsening imaging finding favored to represent treatment effects, including radiation therapy and medications	Decreased time interval of follow-up
		3b – Indeterminate	Worsening imaging finding favored to represent an indeterminate mix of treatment effect tumor worsening	Decreased time interval of follow-up
		3c – Favor tumor progression	Worsening imaging finding favored to represent increasing burden of tumor	Consider change in management vs. Decreased time of follow-up
4	Imaging Worsening		Worsening of imaging finding highly suspicious for tumor progression	Consider change in management

Supplementary Table S2. Detailed criteria for score assignment based on the BTRADS reporting system [8]

Score	Detailed imaging criteria
0	Baseline study(initial diagnostic MRI or most recent postoperative MRI) Nontumor finding obscure diagnosis (e.g., infection) Non diagnostics study or otherwise unable to classify
1a	Decreased enhancing component Unchanged or decreased FLAIR component No new enhancing or FLAIR lesions Unchanged or decreased mass effect Clinically stable or improved If on bevacizumab, response confirmed by 4-week follow-up
1b	Decreased enhancing component Unchanged or decreased FLAIR component No new enhancing or FLAIR lesions Unchanged or decreased mass effect Clinically stable or improved On increasing doses of steroid or first post bevacizumab imaging with decrease in enhancement only
2	Unchanged enhancing component Unchanged FLAIR component No new enhancing or FLAIR lesions Unchanged mass effect Clinically stable
3a	Imaging worsening within 12-week of completing most recent RT One or both of following: <ul style="list-style-type: none"> • Increased enhancement component • Increased FLAIR component • No new enhancing or FLAIR lesions outside of RT treatment zone • Increased mass effect • Clinically stable
3b	Imaging worsening outside 12-week of completing most recent RT One or both of following: <ul style="list-style-type: none"> • Increased enhancement component • Increased FLAIR component and increasing mass effect • No new enhancing or FLAIR lesions outside of RT treatment zone • Clinically stable
3c	Increased enhancement component < 25% Increased FLAIR component < 25% No new enhancing or FLAIR lesions outside of RT treatment zone Increased mass effect Clinically stable OR New intermediate lesion outside of RT treatment zone (e.g., FLAIR lesion without enhancement)

4	<p>Progressive increase in enhancing or FLAIR component of lesion over multiple studies over time Progressive increase in mass effect over multiple studied over time Progressive clinical deterioration</p> <p>OR</p> <p>Increased enhancement component > 25% Increased FLAIR component > 25% Increased mass effect Clinically worse</p> <p>OR</p> <p>New definite lesion outside of RT treatment zone(e.g., enhancing lesion)</p>
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