

## MRI OF THE BRAIN WITHOUT AND WITH IV CONTRAST

history

**CLINICAL INDICATION:** [imported history]

Tumor Type & Mutations: [fill-in:tumor type]

Surgical History: [fill-in:last surgery date]

Radiation History: [fill-in:radiation completion date]

Relevant Medications: [fill-in:medications (avastin or steroids)]

technique

### TECHNIQUE:

Pre-contrast sagittal and axial T1-w, and axial T2-FLAIR, GRE, and diffusion-w sequences of the brain with ADC maps. [Perfusion or spectroscopy if present] Post-contrast axial fat-saturated T2-w and T1-w, and sagittal volumetric T1-w images of the brain with axial and coronal reformations. Intravenous contrast material was administered for the examination.

**COMPARISON:** [<None.>]

### FINDINGS:

#### TUMOR:

Location: [fill-in:location]

#### FLAIR:

[Pick list: FLAIR]

Choice name	Text
<b>No change</b>	No change in extent of nonenhancing FLAIR abnormality.
Increasing	Increasing nonenhancing FLAIR abnormality.
Decreasing	Decreasing extent of nonenhancing FLAIR abnormality.

[fill-in:Additional flair description]

[Pick list: New FLAIR]

Choice name	Text
<b>No</b>	No new sites of FLAIR abnormality.
Yes	New FLAIR abnormality is present.

FLAIR

#### Enhancement:

[Pick list: Enhancement]

Choice name	Text
<b>No change</b>	No change in extent of enhancing component at primary site.
Increasing	Increase in extent of enhancing component at primary site.
Decreasing	Decrease in extent of enhancing component at primary site.
None	No appreciable contrast enhancement.

[fill-in:Additional enhancement description]

Enhancement

[Pick list: New Enhancement]

Choice name	Text
<b>No</b>	No new sites of enhancement.
Yes	New sites of enhancement are seen.

**Diffusion:**

[Pick list: Diffusion]

Choice name	Text
<b>normal</b>	No diffusion abnormality to suggest hypercellular tumor.
hypercellular tumor unchanged	Areas of abnormally decreased diffusion are seen, compatible with areas of hypercellular tumor. These are unchanged compared to the prior study.
hypercellular tumor decreased	Areas of abnormally decreased diffusion are seen, compatible with areas of hypercellular tumor. These are decreased compared to the prior study.
hypercellular tumor increased	Areas of abnormally decreased diffusion are seen, compatible with areas of hypercellular tumor. These are increased compared to the prior study.
Avastin effect decreased	Areas of abnormally decreased diffusion are seen, compatible with areas of avastin effect. These are decreased compared to the prior study.
Avastin effect increased	Areas of abnormally decreased diffusion are seen, compatible with areas of avastin effect. These are increased compared to the prior study.

**Perfusion (only in studies with perfusion):**

[Pick list: Perfusion]

Choice name	Text
<b>No hyperperfusion</b>	No evidence of abnormal hyperperfusion (rCBV).
Hyperperfusion	Areas of abnormal hyperperfusion (rCBV) are seen.
Hypoperfusion	Areas of relative hypoperfusion (decreased rCBV) are seen within the tumor bed.
Not performed.	Perfusion imaging was not performed.

**Spectroscopy (only in studies with spectroscopy):**

[<Normal metabolite ratios.>]

**Posttreatment changes:**

[<Expected post treatment changes are noted.>]

**ADDITIONAL FINDINGS:**

**Infarction:**

[Pick list: Infarction]

Choice name	Text
<b>No</b>	No acute infarction.
Incidental	An incidental acute or subacute infarction is present.
Avastin	A new subacute infarction is present distant from the tumor site. In the setting of anti-angiogenic therapy, this may represent an associated effect.

**Extra-axial Collection:** [<No unexpected fluid collection.>]

**Ventricular System:**

[Pick list: Ventricles]

Choice name	Text
<b>Normal</b>	No hydrocephalus.
Ex vacuo	Ex vacuo enlargement.
Mild	Mild hydrocephalus
Moderate	Moderate hydrocephalus
Severe	Severe hydrocephalus

**Major Intracranial Flow Voids:** [<Normal.>]

**Osseous Structures:** [<Expected marrow signal.>]

**Included Orbits:** [<Normal.>]

**Paranasal Sinuses:**

[Pick list: Sinuses]

Choice name	Text
<b>Predominantly clear</b>	Predominantly clear
Extensive	Extensive mucosal thickening and opacification of multiple paranasal sinuses

**Tympanomastoid Cavities:** [<Normal>].

Legend

0 - New baseline, incomplete study, or otherwise unable to categorize

1a - Improvement in imaging findings suspected to reflect decreasing tumor burden and/or treatment effect

1b - Improvement in imaging findings potentially due to effect from medications such as steroids or initiating avastin

2 - No appreciable change from the prior

3a - Worsening imaging findings favored to represent treatment effects, including radiation therapy and medications

3b - Worsening imaging findings favored to represent an indeterminate mix of treatment effect and tumor worsening

3c - Worsening imaging findings favored to represent increasing burden of tumor

4 - Worsening of imaging findings highly suspicious for tumor progression

**IMPRESSION:**

1. [Glioblastoma/astrocytoma/oligodendroglioma] status post treatment.

[Pick list: Category]

Choice name	Text
<b>0 – baseline</b>	This study represents a new baseline, incomplete study, or otherwise unable to be categorized (Category: BT-0).
1a – Improvement	Improvement in imaging findings suspected to reflect decreasing tumor burden and/or treatment effect (Category: BT-1a).
1b - improvement medications	Improvement in imaging findings potentially due to effect from medications such as steroids or initiating avastin (Category: BT-1b).
2 - no change	No appreciable change in tumor compared to the prior study (Category: BT-2).
3a - favor treatment effect	Worsening imaging findings favored to represent treatment effects, including radiation therapy and medications (Category: BT-3a).
3b – indeterminate	Worsening imaging findings favored to represent an indeterminate mix of treatment effect and tumor worsening (Category: BT-3b).
3c - favor tumor progression	Worsening imaging findings favored to represent increasing burden of tumor (Category: BT-3c).
4 - tumor progression	Worsening of imaging findings highly suspicious for tumor progression (Category: BT-4).

2. [<Otherwise expected post-treatment findings.>]