

**BEVACIZUMAB
INDUCED COAGULATIVE
NECROSIS AND
MAGNETIC RESONANCE
FINDINGS: CASE
REPORT**

Anna Christiany Brandão Nascimento

All content in this magazine is licensed under a Creative Commons Attribution License. Attribution-Non-Commercial-Non-Derivatives 4.0 International (CC BY-NC-ND 4.0).



Abstract: Male, 70 years old, already diagnosed with glioblastoma, and presented recurrence after surgery. The patient performed second-line chemotherapy treatment with bevacizumab and brain magnetic resonance. Coagulative necrosis induced by bevacizumab in the treatment of glioblastoma is a little reported entity, even though bevacizumab is increasingly used. The knowledge of the magnetic resonance findings of bevacizumab-induced coagulative necrosis contributes to elucidating the diagnosis.

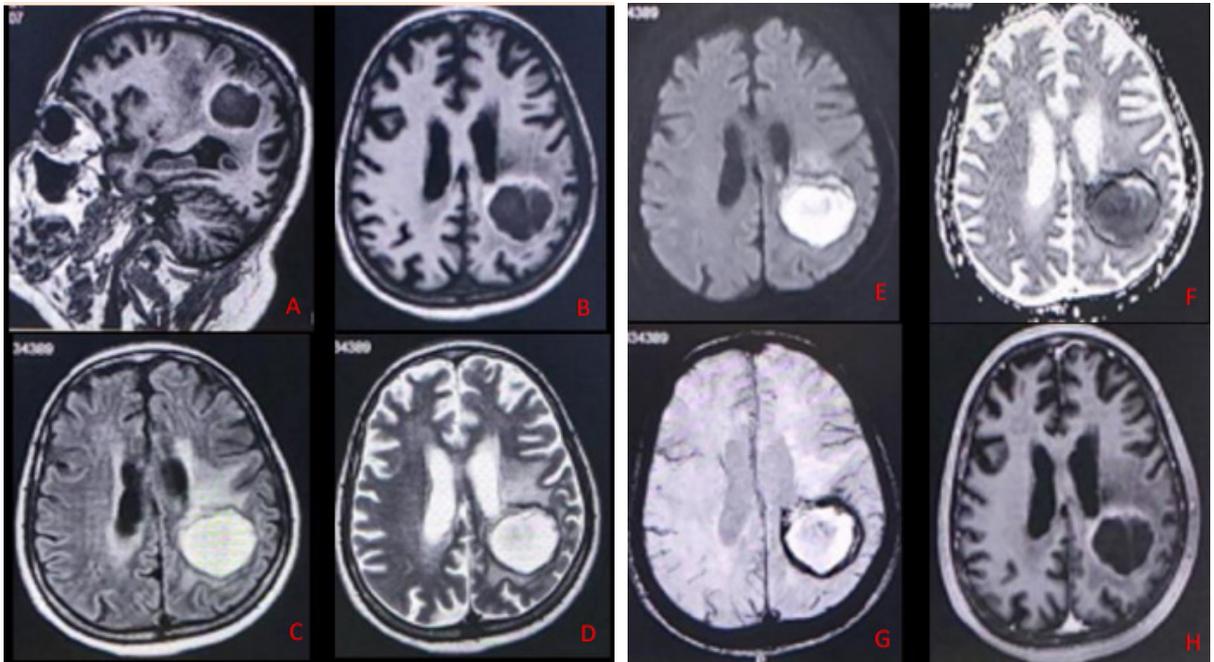
DISCUSSION

Glioblastoma is the most frequent malignant tumor of the central nervous system. The prognosis of glioblastoma is generally limited even after surgical treatment with radiotherapy and chemotherapy¹. Bevacizumab is an angiogenesis inhibitor

used in patients with glioblastoma recurrent¹. The patient in this case report demonstrates an expansive heterogeneous lesion in the left parietal lobe, with significant signal change in T2 and FLAIR, restriction in diffusionweighted sequences and marked hyposignal in the ADC map, but without enhancement after contrast administration, among diagnostic hypotheses can be considered tumor progression and necrosis after chemotherapy associated with bevacizumab due to the absence of lesion enhancement.

CONCLUSION

Coagulative necrosis induced by bevacizumab in the treatment of glioblastoma is a little reported entity, even though bevacizumab is increasingly used. The knowledge of the magnetic resonance findings of bevacizumab-induced coagulative necrosis contributes to elucidating the diagnosis.



A: T1 weighted Sagittal B: T1 weighted axial C: FLAIR weighted D: T2 weighted

E: Diffusion weighted F: ADC map G: Susceptibility weighted imaging (SWI) H: T1 weighted image (gadolinium postcontrast)

REFERENCES

1.Nguyen HS, Milbach N, Hurrell SL, Cochran E, Connelly J, Bovi JA, Schultz CJ, Mueller WM, Rand SD, Schmainda KM, LaViolette PS. Progressing Bevacizumab-Induced Diffusion Restriction Is Associated with Coagulative Necrosis Surrounded by Viable Tumor and Decreased Overall Survival in Patients with Recurrent Glioblastoma. *AJNR Am J Neuroradiol*. 2016 Dec;37(12):2201-2208. doi: 10.3174/ajnr.A4898. Epub 2016 Aug 4. PMID: 27492073; PMCID: PMC5161572.