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# Vanishing Contrast Enhancement of a Diffuse Midline Glioma

[Charles Champeaux Depond](#)<sup>1</sup>, [Philippe Metellus](#)<sup>1</sup>, [Emmanuel Gross](#)<sup>2</sup>, [Romain Appay](#)<sup>3</sup>

Affiliations

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## Abstract

Diffuse midline glioma, is a highly aggressive deep-seated glioma whose diagnosis must be confirmed through histopathological analysis of stereotactic biopsies. Hemorrhagic complications after intracranial biopsies may occur, potentially leading to severe neurological sequelae or significantly altering the outcome. A 55-year old male with no significant medical history presented to the local emergency department with 4 days of diplopia. A magnetic resonance imaging (MRI) confirmed the presence of tumor whose characteristics were highly suggestive of a high-grade infiltrating causing blocked hydrocephalus. As no safe resection was achievable, a third ventriculostomy followed by an endoscopic biopsy of the tumor was performed. Unfortunately, the procedure was complicated by an massive intraventricular bleeding of the tumor and, the tiny tumor specimens collected were not contributive. Fortunately, the patient survived and, his clinical state slowly improved. Follow up MRIs depicted a progressive regression of the tumor. As such a wait and see policy was preferred over a chemoradiotherapy. Ultimately, the gadolinium enhancement totally vanished. Unfortunately, 27 months after the initial presentation, he presented with a quick neurological worsening with severe hemiparesis and seizures for which cerebral imaging showed a malignant-looking deep-situated unresectable brain tumor. A second biopsy was performed without any specific complication. The histopathological examination of the tumor revealed a high-grade glial tumor characterized by hypercellularity, marked atypia, mitosis, microvascular proliferation, and areas of necrosis with positive H3 p.K28M nuclear staining in combination with the loss of nuclear H3 p.K28me3. He was referred for best supportive care and, died 29.6 months after the initial presentation. To our knowledge, this is the first report of the gadolinium enhancement of a diffuse midline glioma H3 K27-altered.

**Keywords:** H3 K27; biopsy; hemorrhage; high grade glioma; prolonged survival.

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