Progression of Low-Grade Glioma During Pregnancy With Subsequent Regression Postpartum Without Treatment-A Case Report.

Shah AS¹, Nicoletti LK¹, Kurtovic E², Tsien CI³, Benzinger TLS³, Chicoine MR¹.

Abstract

BACKGROUND AND IMPORTANCE: This report illustrates a case of a low-grade glioma that showed significant disease progression during pregnancy, and then subsequent regression spontaneously in the postpartum period without treatment. This is a rare case of spontaneous glioma regression in the postpartum period, and may suggest underlying mechanisms of hormonal influences upon glioma progression.

CLINICAL PRESENTATION: The patient is a 27-yr-old female who underwent placement of a right-sided ventriculoperitoneal shunt for aqueductal stenosis at 8 wk of age. At the age of 24 yr, she was evaluated for chronic headaches and was found on magnetic resonance imaging (MRI) for the first time to have a small nonenhancing tectal glioma that remained stable on follow-up MRI. At the age of 25 yr, she returned for annual follow-up after giving birth and reported a significant increase in headache frequency and severity during the pregnancy. Repeat imaging now showed a larger, contrast-enhancing lesion. A decision was made to pursue radiosurgery, but during the pretreatment planning phase, the lesion and symptoms regressed spontaneously, and the lesion has remained stable on repeat MRI studies over a 30-mo period since delivery of her child.

CONCLUSION: A young woman with a tectal glioma developed symptomatic disease progression during pregnancy, and subsequently had regression of the lesion and symptoms in the postpartum period without treatment. This case supports watchful waiting in select cases and suggests a potential role of hormones in glioma progression.

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