
Interactions between glioma and pregnancy: insight from a 52-case multicenter series.


Abstract

OBJECTIVE The goal of this study was to provide insight into the influence of gliomas on gestational outcomes, the impact of pregnancy on gliomas, and the identification of patients at risk. METHODS In this multiinstitutional retrospective study, the authors identified 52 pregnancies in 50 women diagnosed with a glioma. RESULTS For gliomas known prior to pregnancy (n = 24), we found the following: 1) An increase in the quantified imaging growth rates occurred during pregnancy in 87% of cases. 2) Clinical deterioration occurred in 38% of cases, with seizures alone resolving after delivery in 57.2% of cases. 3) Oncological treatments were immediately performed after delivery in 25% of cases. For gliomas diagnosed during pregnancy (n = 28), we demonstrated the following: 1) The tumor was discovered during the second and third trimesters in 29% and 54% of cases, respectively, with seizures being the presenting symptom in 68% of cases. 2) The quantified imaging growth rates did not significantly decrease after delivery and before oncological treatment. 3) Clinical deterioration resolved after delivery in 21.4% of cases. 4) Oncological treatments were immediately performed after delivery in 70% of cases. Gliomas with a high grade of malignancy, negative immunoeexpression of alpha-internexin, or positive immunoeexpression for p53 were more likely to be associated with tumor progression during pregnancy. Deliveries were all uneventful (cesarean section in 54.5% of cases and vaginal delivery in 45.5%), and the infants were developmentally normal. CONCLUSIONS When a woman harboring a glioma envisions a pregnancy, or when a glioma is discovered in a pregnant patient, the authors suggest informing her and her partner that pregnancy may impact the evolution of the glioma clinically and radiologically. They strongly advise a multidisciplinary approach to management. ■

CLASSIFICATION OF EVIDENCE Type of question: association; study design: case series; evidence: Class IV.

KEYWORDS: IGF-1 = insulin-like growth factor–1; VDE = velocity of diametric expansion; glioma management; natural history; oncology; pregnancy
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