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The Effects of Anesthetics on Glioma Progression: A Narrative Review

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Abstract

There are many established factors that influence glioma progression, including patient age, grade of tumor, genetic mutations, extent of surgical resection, and chemoradiotherapy. Although the exposure time to anesthetics during glioma resection surgery is relatively brief, the hemodynamic changes involved and medications used, as well as the stress response throughout the perioperative period, may also influence postoperative outcomes in glioma patients. There are numerous studies that have demonstrated that choice of anesthesia influences non-brain cancer outcomes; of particular interest are those describing that the use of total intravenous anesthesia may yield superior outcomes compared with volatile agents in in vitro and human studies. Much remains to be discovered on the topic of anesthesia's effect on glioma progression.

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