

13 Do No Harm: Does Repeated Surgical Resections for Management of High-Grade Glioma Recurrence Impact Quality of Life?

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Objective: High-grade gliomas are aggressive and infiltrate surrounding brain parenchyma, making gross total resection difficult, and despite aggressive treatment, its recurrence is inevitable (Zhou et al., 2016). Repeated tumor resections have been shown to increase survival (Chaichana et al., 2013) but the cost of doing so on quality of life (QoL) and functioning is not known. To address this gap, we compared changes in QoL using the Functional Assessment of Cancer Therapy-Brain questionnaire (FACT-Br; Weitzner et al., 1995) in high-grade glioma patients undergoing first versus repeat surgical resection.

Participants and Methods: Thirty-three patients with high-grade gliomas (mean age=52, 54.5% female) that underwent tumor resection and completed comprehensive neuropsychological evaluations that included FACT-Br pre-operative and at 2-week follow up were included in this study. FACT-Br assesses four QoL domains: physical well-being (PWB), social well-being (SWB), emotional well-being (EWB), and functional well-being (FWB). A subscale total score was computed for each domain, and these subscale scores were summed to compute a total score for overall QoL. Difference scores were computed for each subscale score and total score by subtracting patients' pre-operative rating from post-operative rating. More positive scores indicate lesser perceived changes of QoL post-operatively. One-way MANOVA analysis was run to compare the difference scores between patients that underwent first resection and those that underwent repeated resection.

Results: There was no significant difference in perceived changes of overall QoL between the two groups of patients. However, patients with previous resection reported larger decline in perceived physical well-being compared to patients without previous resection ($F(1,30)=99.93, p<.05, \text{partial } \eta^2=.16$). There were no significant differences in other QoL domains between the two groups.

Conclusions: We showed no differences in perceived changes across most QoL domains in patients undergoing repeat versus first surgical resection for treatment of high-grade glioma, suggesting that repeated resections may be a viable strategy in managing tumor recurrences. Specifically, there were no group differences in social, emotional, and functional well-being pre- to postoperatively. However, patients with previous resection reported significantly larger decline in their perceived physical well-being than those without any previous resection. A possible explanation is that patients with previous resection underwent adjuvant therapies (e.g., radiation therapy, chemotherapy) and experienced tumor progression necessitating reoperation, which could have made them more vulnerable to the physical impacts of surgery. Our findings are encouraging and may provide useful insight to guide treatment strategies and patient's decision making to optimize both surgical and functional outcomes.

Categories: Cancer

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Keyword 3: quality of life

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14 The Impact of Socioeconomic Status (SES) on Phonemic Fluency in Patients with Pediatric Brain Tumor (PBT)

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Objective: Phonemic fluency, an important cognitive skill for everyday functioning, has been shown to decline in comparison to same-aged peers following pediatric cancer diagnosis and treatment, despite intact semantic fluency. More generally, socioeconomic status (SES) has recently been shown to be one of the strongest predictors of neuropsychological outcomes among pediatric oncology patients, with lower SES predicting worse intellectual and academic functioning. However, the association between SES and phonemic fluency within this population has yet to be explored. The main objective of this project was to determine whether SES