





Original Article

"Should Redo Surgery be Offered to Patients with Relapsed Glioblastoma? - Outcome analyses of a single institution comparative cohort study"

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Abstract

Background

Glioblastoma multiforme (GBM) is the predominant malignant brain tumor originating intracranially. The established first-line treatment post-surgery is concurrent chemo-radiation as a definitive measure. However, recurrent GBM's pose a challenge for clinicians who rely on institutional experience to determine the most suitable course of action. Second-line chemotherapy may be administered with or without surgery depending on the institution's practice. This study aims to present our tertiary centre institution's experience with recurrent GBM patients who underwent redo surgery.

Methods

In this retrospective study we analysed the surgical and oncological data of patients with recurrent GBM who underwent redo surgery at the Royal Stoke University Hospitals between 2006 and 2015. The G1 group comprised the reviewed patients, while a control group (G2) was randomly selected, matching the reviewed group by age, primary treatment, and progression-free survival (PFS). The study collected data on various parameters, including overall survival, progression-free survival, extent of surgical resection, and postoperative complications.

Results

This retrospective study included 30 patients in G1 and 32 patients in G2, matched based on age, primary treatment, and PFS. The study found that the overall survival for the G1 group from the time of first diagnosis was 109 weeks (45-180) compared to 57 weeks (28-127) in the G2 group.

The incidence of postoperative complications after the second surgery was 57%, which included haemorrhage, infarction, worsening neurology due to oedema, CSF leak, and wound infection. Furthermore, 50% of the patients in the G1 group who underwent redo surgery received second-line chemotherapy.

Conclusions

Our study found that redo surgery for recurrent GBM is a viable treatment option for a select group of patients with good performance status, longer progression-free survival from primary treatment, and compressive symptoms. However, the use of redo surgery varies depending on the institution. A well-designed randomized controlled trial in this population would help establish the standard of surgical care.

References (0)

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