

Outcomes after Surgery and Adjuvant Therapy for Glioblastoma : Results of a Single Institution Retrospective Study

V Lubrano (Department of Neurosurgery, Institut Universitaire du Cancer de Toulouse), B Plas (Department of Neurosurgery, Institut Universitaire du Cancer de Toulouse) J. Khalifa (Department of Radiation Oncology, Institut Universitaire du Cancer de Toulouse), F Tensaouti (UMR1214, TOLouse NeuroImaging Centre), JC Sol (Department of Neurosurgery, Institut Universitaire du Cancer de Toulouse), E. Cohen-Jonathan Moyal (Department of Radiation Oncology, Institut Universitaire du Cancer de Toulouse)

Glioblastoma (GBM) is the most common malignant primary brain tumor in adults. It is a very aggressive and radioresistant tumor, whose standard treatment associates surgery followed by chemoradiation, but that virtually always recur. We aimed to evaluate therapies delivered for GBM in Comprehensive Cancer Center.

We conducted a single institution database search in our institution and reviewed the relevant clinical, radiological and treatment data of 43 patients who were treated between 2006 and 2010 by surgical resection and full course of radiation, with documented early post-operative and follow-up MRI scans for at least 6 months after surgery.

At the time of final analysis, 41 (95,3%) of 43 patients had dead after a median follow-up was 22,7 months (range 7,5 to 69,7 months). Median OS and TTP were 22.74 mois (95% CI, 14,4-26,1) and 6.4 months (95% CI 4.4-9.3) respectively. Gross (and near) total resection (GTR) was achieved in 44.2% of the patients, and sub-total resection in 55.8%. The overall perioperative complication rate was 30%. The main causes of postoperative disability were some degree of postoperative paresis (9,3%), aphasia (14%) and/or visual field deficit (9,3). At recurrence, ninety percent of the patient had second-line treatment including surgery (43%), chemotherapy (95%) and bevacizumab (43%).

Our selected case series emphasized that maximal surgical safe resection of GBM offers favourable benefit-risk ratio before chemoradiation. It also showed the benefit of selected therapeutic options after the current standard of care has failed.