

PubMed

Display Settings:  Abstract

[Int J Radiat Oncol Biol Phys.](#) 2004 Nov 1;60(3):853-60.

## Randomized comparison of stereotactic radiosurgery followed by conventional radiotherapy with carmustine to conventional radiotherapy with carmustine for patients with glioblastoma multiforme: report of Radiation Therapy Oncology Group 93-05 protocol.

[Souhami L](#), [Seiferheld W](#), [Brachman D](#), [Podgorsak EB](#), [Werner-Wasik M](#), [Lustig R](#), [Schultz CJ](#), [Sause W](#), [Okunieff P](#), [Buckner J](#), [Zamorano L](#), [Mehta MP](#), [Curran WJ Jr](#).

Department of Oncology, Division of Radiation Oncology, McGill University, Montreal, Quebec, Canada. [luis.souhami@muhc.mcgill.ca](mailto:luis.souhami@muhc.mcgill.ca)

### Abstract

**PURPOSE:** Conventional treatment of glioblastoma multiforme (GBM) cures less than 5% of patients. We investigated the effect of stereotactic radiosurgery (SRS) added to conventional external beam radiation therapy (EBRT) with carmustine (BCNU) on the survival of patients with GBM.

**METHODS AND MATERIALS:** A total of 203 patients with supratentorial GBM (tumor  $\leq$  40 mm) were randomly assigned either to postoperative SRS followed by EBRT (60 Gy) plus BCNU (80 mg/m<sup>2</sup>) Days 1-3 every 8 weeks for six cycles) or to EBRT with BCNU alone. The dose of radiosurgery was tumor size-dependent and ranged from 15 Gy for largest to 24 Gy for smallest tumors. RT and BCNU were identical in both arms.

**RESULTS:** At a median follow-up time of 61 months, the median survival in the radiosurgery group was 13.5 months (95% confidence interval, 11.0-14.8) as compared with 13.6 months (95% confidence interval, 11.2-15.2,  $p = 0.5711$ ) for the standard treatment group. There were also no significant differences in 2- and 3-year survival rates and in patterns of failure between the two arms. Quality of life deterioration and cognitive decline at the end of therapy, compared with baseline, were comparable and there was no difference in quality-adjusted survival between the arms.

**CONCLUSIONS:** Stereotactic radiosurgery followed by EBRT and BCNU does not improve the outcome in patients with GBM nor does it change the general quality of life or cognitive functioning.

### Comment in

[Int J Radiat Oncol Biol Phys.](#) 2005 Jun 1;62(2):614-5; author reply 615-6.

[Int J Radiat Oncol Biol Phys.](#) 2005 May 1;62(1):296-7; author reply 297.

PMID: **15465203** [PubMed - indexed for MEDLINE]

[+](#) **Publication Types, MeSH Terms, Substances, Grant Support**

[+](#) **LinkOut - more resources**