

## Journal Article



## Noadjuvant Gemcitabine/treosulfan Chemotherapy for Newly Diagnosed Glioblastoma

Journal	Journal of Neuro-Oncology
Publisher	Springer Netherlands
ISSN	0167-594X (Print) 1573-7373 (Online)
Issue	Volume 59, Number 2 / September, 2002
DOI	10.1023/A:1019641314661
Pages	151-155
Subject Collection	Medicine
SpringerLink Date	Sunday, October 31, 2004

**Wolfgang Wick<sup>1</sup>, Mirjam Hermisson<sup>1</sup>, Rolf D. Kortmann<sup>2</sup>, Wilhelm M. Küker<sup>3</sup>, Frank Duffner<sup>4</sup>, Johannes Dichgans<sup>1</sup>, Michael Bamberg<sup>2</sup> and Michael Weller<sup>1</sup>**

- (1) Department of Neurology, University of Tübingen Medical School, Tübingen, Germany  
 (2) Department of Radiation Oncology, University of Tübingen Medical School, Tübingen, Germany  
 (3) Department of Neuroradiology, University of Tübingen Medical School, Tübingen, Germany  
 (4) Department of Neurosurgery, University of Tübingen Medical School, Tübingen, Germany

**Abstract** The median survival for patients with glioblastoma is 12 months. The authors evaluated whether preirradiation gemcitabine/treosulfan (GeT) chemotherapy followed by standard radiotherapy improved outcome in patients with glioblastoma. Seventeen patients with newly diagnosed glioblastoma were enrolled in a prospective, unicenter trial of preirradiation GeT chemotherapy. Chemotherapy included up to 4 cycles of intravenous gemcitabine (1000 mg/m<sup>2</sup> body surface) and treosulfan (3500 mg/m<sup>2</sup> body surface) on days 1 and 8 of 28 days treatment cycles. Involved field radiotherapy (60 Gy in 30 fractions) was given after chemotherapy or earlier in the case of disease progression or drug intolerance. There was no specific treatment-related neurotoxicity reported, but in 3 of 17 patients (18%) chemotherapy was stopped because of World Health Organization (WHO) IV hematological toxicity. With GeT chemotherapy alone, there was a median progression-free survival of 12 weeks and a progression-free survival rate at 4 months of 29%. In 16 of 17 patients who subsequently received a full course of radiotherapy, the median progression-free survival from the time of diagnosis was 8 months, and the progression-free survival rate at 12 months was 25% (4 of 16 patients). The median overall survival was 12 months. Neither age nor extent of the residual postoperative tumor predicted the duration of progression-free survival after chemotherapy alone or after chemotherapy followed by radiotherapy. The combination of gemcitabine and treosulfan produced significant hematological toxicity in patients with newly diagnosed glioblastoma. The schedule used in the present study did not confer any significant survival advantage compared with standard involved field radiotherapy alone.

brain tumor - neurotoxicity - preirradiation chemotherapy - progression-free survival

References secured to subscribers.

Copyright ©2008, Springer. All Rights Reserved.