

PubMed

U.S. National Library of Medicine
National Institutes of Health



Display Settings: Abstract

Int J Radiat Oncol Biol Phys. 2011 Feb 5. [Epub ahead of print]

Retrospective Comparison of Chemoradiotherapy Followed by Adjuvant Chemotherapy, With or Without Prior Gliadel Implantation (Carmustine) After Initial Surgery in Patients With Newly Diagnosed High-Grade Gliomas.

Noël G, Schott R, Froelich S, Gaub MP, Boyer P, Fischer-Lokou D, Dufour P, Kehrlí P, Maitrot D.

Radiation Oncology Department, Centre de lutte contre le cancer Paul Strauss, Strasbourg, France.

Abstract

PURPOSE: Retrospective study of patients treated for high-grade glioma, with or without biodegradable carmustine wafers and according to the Stupp protocol.

METHODS AND MATERIALS: Between May 2007 and June 2008, 65 patients underwent surgery for high-grade glioma, 28 had implantation of Gliadel and 37 patients did not. Patients received radiotherapy with concomitant temozolomide followed by 5 consecutive days of temozolomide every month for 6 months.

RESULTS: Overall median follow-up was 17.1 months; the median relapse-free survival (RFS) was 14 months with a RFS of 54% at 12 months, and 38% at 24 months. For patient with and without Gliadel, median and 1-year RFS were 12.9 months and 52% vs. 14 months and 42%, respectively ($p = 0.89$). According to pathology, Gliadel did not influence RFS of patients with Grade III or glioblastoma. However, for all patients, in multivariate analysis, non-methylated methylguanine methyltransferase (MGMT) was the only unfavorable prognostic factor of RFS ($p = 0.017$; HR 2.8; CI [1.2-7]). Median overall survival (OS) was 20.8 months; the OS rate at 12 months was 78.5%, and at 24 months 35.4%. For patients treated with and without Gliadel, median and 1-year OS were 20.6 months and 78.6% vs. 20.8 months and 78.4%, respectively. According to pathology, Gliadel did not influence OS of patients with Grade III or glioblastoma. For all patients, in multivariate analysis, unfavorable prognosticators for OS were non-methylated MGMT ($p = 0.001$; HR: 6.5; CI [2-20]) and irradiation dose <60 Gy ($p = 0.02$; HR: 6.3; CI [2-20]). With carmustine wafers, before irradiation, median gross tumor volume plus edema was 84 mL (27-229), whereas it was 68 mL (10-362) without carmustine ($p =$ nonsignificant). Four cases of Grade 3 thrombopenia occurred, all in the carmustine wafer group.

CONCLUSION: In patients with high-grade gliomas, adding Gliadel before performing a Stupp protocol did not improve survival.

Copyright © 2011 Elsevier Inc. All rights reserved.

PMID: 21300471 [PubMed - as supplied by publisher]

[LinkOut - more resources](#)