

## PubMed

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



Display Settings:  Abstract

[Int J Radiat Oncol Biol Phys.](#) 2010 Oct 29. [Epub ahead of print]

# Phase I Dose Escalation Trial of Vandetanib With Fractionated Radiosurgery in Patients With Recurrent Malignant Gliomas.

Fields EC, Damek D, Gaspar LE, Liu AK, Kavanagh BD, Waziri A, Lillehei K, Chen C.

Department of Radiation Oncology, University of Colorado School of Medicine, Aurora, CO.

### Abstract

**PURPOSE:** To determine the maximum tolerated dose (MTD) of vandetanib with fractionated stereotactic radiosurgery (SRS) in patients with recurrent malignant gliomas.

**METHODS AND MATERIALS:** Patients with a recurrent malignant glioma and T1-enhancing recurrent tumor  $\leq 6$  cm were eligible. Vandetanib was given orally, once per day, 7 days a week, starting at least 7 days before SRS and continued until a dose-limiting toxicity (DLT) or disease progression. The planned vandetanib daily dose was 100 mg, 200 mg, and 300 mg for the cohorts 1, 2, and 3, respectively, and was escalated using a standard 3+3 design. A total SRS dose of 36 Gy, 12 Gy per fraction, was delivered over 3 consecutive days. The MTD was defined as the dose of vandetanib at which less than 33% of patients developed DLTs, defined by the Common Terminology Criteria for Adverse Events (CTCAE) version 3 as any Grade 3 or greater nonhematologic toxicity and Grade 4 or greater hematologic toxicity.

**RESULTS:** Ten patients were treated, 6 on cohort 1 and 4 on cohort 2. Treatment characteristics were: 7 men, 3 women; median age, 40 years (range, 22-72); 7 GBM, 3 anaplastic astrocytoma (AA); median initial radiation (RT) dose, 60 Gy (range, 59.4-70); median interval since initial RT, 14.5 months (range, 7-123); All patients received SRS per protocol. The median follow-up time was 4 months (range, 1-10 months). Median time on vandetanib was 3 months (range 1-11). One of 6 patients in the first cohort developed a DLT of Grade 3 hemothorax while on anticoagulation. The MTD was reached when 2 of the 4 patients enrolled in the second cohort developed DLTs. Six patients had radiographic response, 2 with stable disease.

**CONCLUSION:** The MTD of vandetanib, with SRS in recurrent malignant glioma, is 100 mg daily. Further evaluation of safety and efficacy is warranted.

Copyright © 2010 Elsevier Inc. All rights reserved.

PMID: 21035955 [PubMed - as supplied by publisher]

[LinkOut - more resources](#)