

PubMed

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



Display Settings: Abstract

[Clin Oncol \(R Coll Radiol\)](#), 2011 Mar 24. [Epub ahead of print]

Interstitial Brachytherapy using Stereotactic Implanted (125)Iodine Seeds for Recurrent Medulloblastoma.

El Majdoub F, Simon T, Hoevels M, Berthold F, Sturm V, Maarouf M.

Department of Stereotaxy and Functional Neurosurgery, University of Cologne, Germany.

Abstract

AIMS: To evaluate the efficacy of interstitial brachytherapy using (125)iodine ((125)I) seeds for the treatment of recurrent multimodal treated medulloblastoma.

MATERIALS AND METHODS: Between September 1989 and August 2009, 12 patients (female:male=3:9, median age 19 years, range 7-55 years) with 23 recurrent medulloblastomas underwent interstitial brachytherapy using (125)I seeds. Before brachytherapy, all patients underwent microsurgical resection; six patients underwent a combined adjuvant treatment consisting of craniospinal irradiation and chemotherapy; three received craniospinal irradiation alone and two received chemotherapy alone. One patient was treated by surgery alone. The median tumour volume was 4.9ml (range 0.4-44.2ml), the median tumour surface dose 50Gy (range 32-50Gy) and the median implantation time 42 days (range 42-90 days). A median follow-up of 26 months was available (range 5-116 months).

RESULTS: After brachytherapy, nine of 23 tumours (39%) presented a complete remission, nine (39%) a partial remission and five (22%) stable disease on magnetic resonance images. The neurological status improved in six patients and remained unchanged in four. Two patients deteriorated: one developed spinal metastasis and another a treatment-related adverse radiation effect. Ten patients died due to disseminated disease despite local tumour control. The median survival after treatment was 15 months (range 5-68 months).

CONCLUSIONS: Our results show a good response of recurrent medulloblastoma after interstitial brachytherapy. High rates of tumour remission were yielded with low rates of treatment-related morbidity. Thus, (125)I seed brachytherapy should be considered as a treatment option for recurrent medulloblastoma.

Copyright © 2011 The Royal College of Radiologists. Published by Elsevier Ltd. All rights reserved.

PMID: 21440428 [PubMed - as supplied by publisher]

[LinkOut - more resources](#)