

Gamma Knife Radiosurgery for AVM's: A Clinical Series of 199 Patients

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Abstract

Objective(s): The aim of this study was to evaluate outcomes following gamma knife radiosurgery (GKRS) for arteriovenous malformations (AVMs).

Methods: The present series included 199 patients (3-74 years of age) who underwent GKRS for cerebral AVMs. In 43% of the patients the main symptom was hemorrhage. The median AVM volume was 4,9 cm³, and the median marginal dose was 22 Gy. All patients continued to have follow-up for more than 60 months with serial magnetic resonance images (MRIs)/angiograms.

Results: Follow-up radiological examinations confirmed complete obliteration in 140 patients (%70). Postradiosurgical hemorrhage was observed in 6 (3%) patients. Adverse radiation effects were seen in 3 patients (1.5%). The Spetzler-Martin grade, marginal dosis, volume and Pollock-Flickinger grade were found to be reliable predictors for total obliteration.

Conclusion(s): The results of the present study demonstrated a high total obliteration rate with low complications can be achievable in the GKRS treatment of AVM's.

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Abstract

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