



## Journal Article



## Initial Experiences of Palliative Stereotactic Radiosurgery for Recurrent Brain Lymphomas

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**Summary** In Kyoto University Hospital, stereotactic radiosurgery (SRS) has been performed for its rapid palliative effect in patients with recurrent primary central nervous system lymphoma (PCNSL), often in combination with salvage chemotherapy. In the present study, the treatment outcome and toxicity of SRS for recurrent PCNSL was retrospectively evaluated. Between March 1998 and June 2004, 17 histologically proven recurrent PCNSLs in nine patients were treated with linac-based stereotactic radiosurgery. All patients had developed intracranial recurrences after initial treatment including external beam radiation therapy (EBRT). The prescribed dose was 10.0–16.0 (median 12.0) Gy. Seven of nine patients received systemic chemotherapy around the time of SRS. The target volume was 0.4–24.5 ml (median 3.5 ml). Initial tumor response could be evaluated in 15 of 17 lesions. Among them, radiological complete response (CR), partial response (PR), stable disease (SD) and progressive disease (PD) was observed in 3, 10, 2, and 0 lesions,

respectively. One-year overall survival rate and relapse-free survival rate after first SRS was 58% and 22%, respectively. Improvement of symptoms was observed in six patients. The time from SRS to symptomatic relief was 1–57 days (median 3 days). No  $\geq$  grade 2 acute toxicities related to SRS were observed. In conclusion, linac-based SRS with a prescription dose of 10–12 Gy for recurrent PCNSL is useful for palliation, especially considering the short time, rapid tumor response, and low treatment toxicity.

**Keywords** chemotherapy - recurrent PCNSL - salvage treatment - SRS - symptomatic relief - toxicity

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