



age, gender, performance status, tumor type, number of brain metastases, extracerebral metastases, recursive partitioning analysis class, and interval from tumor diagnosis to WBRT.

## Results

The 1-year survival rates were 65% after WBRT+SRS and 63% after OP+WBRT+boost ( $p = 0.19$ ). The 1-year intracerebral control rates were 70% and 78% ( $p = 0.39$ ), respectively. The 1-year local control rates were 84% and 83% ( $p = 0.87$ ), respectively. On multivariate analyses, improved survival was significantly associated with better performance status ( $p = 0.009$ ), no extracerebral metastases ( $p = 0.004$ ), recursive partitioning analysis Class 1 ( $p = 0.004$ ), and interval from tumor diagnosis to WBRT ( $p = 0.001$ ). Intracerebral control was not significantly associated with any of the potential prognostic factors. Improved local control was significantly associated with no extracerebral metastases ( $p = 0.037$ ).

## Conclusions

Treatment outcomes were not significantly different after WBRT+SRS compared with OP+WBRT+boost. However, WBRT+SRS is less invasive than OP+WBRT+boost and may be preferable for patients with one or two brain metastases. The results should be confirmed by randomized trials.

**Author Keywords:** Brain metastases; Stereotactic radiosurgery; Brain surgery; Radiation boost; Treatment outcome

## Article Outline

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**International Journal of Radiation Oncology\*Biology\*Physics**

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