

# Quality of Life Declined After Brain Radiotherapy

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FROM THE ANNUAL MEETING OF THE SOCIETY FOR NEURO-ONCOLOGY

MONTREAL – Adjuvant whole-brain radiotherapy following surgical or radiosurgical resection of brain metastases provided no survival benefit and modestly reduced health-related quality of life when compared with close MRI observation alone in a randomized study of 359 patients.

The worsening of health-related quality of life with whole-brain radiotherapy (WBRT) was slight and transient, first author Dr. Riccardo Soffietti said at the annual meeting of the Society for Neuro-Oncology. He noted that few scores “reached clinical or statistical significance, and most scores that differed significantly at the first time-point had a tendency to recover over time.”

The study was a secondary analysis of a phase III study in which patients were randomized to receive WBRT (180 patients) or undergo observation with MRI every 3 months (179) after undergoing surgery or radiosurgery for one to three brain metastases. The primary results of the study were published online in the *Journal of Clinical Oncology* (doi:10.1200/JCO.2010.30.1655).

For the primary outcome of overall survival at 1 year, there was no difference in between the WBRT (median of 10.9 months) and observation groups (10.7 months). Both groups also had a similar degree of functional independence.

There was a modest increase in progression-free survival in the WBRT group “probably due to their significant reduction in intracranial progression,” said Dr. Soffietti, professor of neuro-oncology at the University of Torino (Italy).

Intracranial progression causing death occurred in 28% of the WBRT group, compared with 44% of the observation group.

For the secondary end point of health-related quality of life (HRQOL), there was low patient compliance in completing the brain-specific questionnaires QLQ-C30 and BN-20. Only 315 (88%) of the participants completed baseline assessments, while many fewer completed

6-month (51%) or 1-year assessments (45%).

Among the patients for whom all assessments were available, Dr. Soffietti and his colleagues noted “a statistically significant and clinically relevant difference between the two arms at 9 months favoring patients who did not receive whole-brain radiation therapy.” However, the difference in global HRQOL scores at that time (52.2 in the WBRT group and 63.2 in the observation group) was only transitory and was not maintained by the 1-year mark. ■

## VITALS

**Major Finding:** Global HRQOL scores at 9 months were significantly worse in patients who received WBRT than in those who underwent observation alone (52.2 vs. 63.2, respectively).

**Data Source:** Randomized trial of 359 patients who underwent either observation or adjuvant whole-brain radiotherapy after surgical or radiosurgical resection of between 1 and 3 brain metastases.

**Disclosures:** The European Organization for Research and Treatment of Cancer sponsored the trial. Dr. Soffietti did not offer disclosure information.



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