Is whole-brain radiotherapy effective and safe in elderly patients with brain metastases?

OBJECTIVE: The outcome of whole-brain radiotherapy in elderly patients with brain metastases is not well documented. As the number of such patients is expected to increase, we evaluated our results. METHODS: Seventeen patients aged 75-82 years were identified for this retrospective analysis. The majority received 30 Gy in 10 fractions plus steroids (without other local or systemic measures). The median Karnofsky performance score (KPS) was 70. RESULTS: Symptomatic improvement was observed in 53%. Median survival of the responding patients was 4.5 months. However, median survival of the non-responding patients was 1.4 months only. All patients that survived for more than 4 months had a KPS > or ≥70 and metachronous brain metastases. None of the patients with KPS < 70 survived for more than 2.2 months. None of the patients developed severe acute toxicity. One patient developed severe late neurotoxicity. CONCLUSIONS: Most elderly patients with brain metastases have an unfavourable prognosis. However, as in other populations, assessment of KPS and few other factors might guide the choice of treatment. Radiation therapy might lead to symptomatic responses in approximately half of the patients, but long-term survivors appear at risk of neurotoxicity. As promising results were published from a retrospective radiosurgery series, prospective trials appear warranted.