Abstract:

Goal of this retrospective analysis was to evaluate the role of repeat whole brain radiotherapy in the palliative care of patients with brain metastases due to solid tumors. Data regarding demographic data, primary tumor, metastasis, radiotherapy and symptoms were compiled on 134 patients with cerebral metastases that received repeat whole brain radiotherapy (WBRT) in our clinic between 2002 and 2011. The analyzed group consisted of 63 (47%) women and 71 (53%) men with a median age of 57 at the start of re-irradiation. Most frequent primary site was the lung (87%). Sixty patients with lung cancer received the first WBRT prophylactically. At the time of re-WBRT 81% of all patients suffered from additional extracerebral metastases. Time between first and second WBRT was a median of 13.4 months. Full dose for the first WBRT was 30 Gy in 2.0 Gy single dose, for the second 20 Gy in 2.0 Gy single dose. At the start of the Re-WBRT 81 patients (60.4%) had mild, 32 (23.9%) severe neurological symptoms, 21 patients (15.7%) were asymptomatic. The median Karnofsky performance status was 70%. Overall, re-WBRT was tolerated satisfactorily. Main side effects were fatigue, erythema and focal alopecia, 10% of patients discontinued treatment before reaching the planned dose. Median survival was 2.8 months since the end of the re-WBRT with good performance status at the start of the
re-irradiation being a key indicator for longer survival. Fifty-two patients (39%) showed a clinical improvement of neurological symptoms after the therapy, 59 patients (44%) remained stable, 23 patients (17%) showed worse symptoms. From this large patient collective we were able to show that re-WBRT can be an important therapeutic option with low rate of acute side effects for patients in adequate general condition.