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Abstracts

P08.17. REPEAT STEREOTACTIC RADIOSURGERY (SRS) FOR RECURRENT BRAIN METASTASES

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OBJECTIVES: SRS for brain metastases is an effective treatment for brain metastases with a reported survival of 7-14 months. Local control is in the range of 70-90% at 12 months, with a proportion of patients who recurs locally we have evaluate the efficacy of repeat stereotactic radiosurgery (SRS) as salvage treatment in patients with recurrent brain metastases. PATIENTS AND METHODS: Between May 2008 and December 2012, twenty-seven patients received repeat SRS for a recurrent brain metastasis at University of Rome Sapienza, Sant'Andrea Hospital. All patients had Karnofsky Performance Score $\geq$ 60 and were previously treated with single-fraction SRS. The median time interval between primary SRS and reirradiation was 13.5 months. At the time of recurrence all patients received multi-fraction SRS (7-8 Gy x 3) RESULTS: Median overall and 12-month survival rates after repeat multifraction SRS were 10.3 months and 37%, respectively. Six patients were alive at the of analysis. The 6-month and 12-month local control rates were 90% and 72%. KPS $>$ 70 ($p = 0.04$) and presence of extracranial disease ($p = 0.01$) were significant prognostic factor associated with longer survival. In general the treatment was well tolerated with relatively low treatment-related toxicity. Radionecrosis occurred in 7 reirradiated lesions, and was associated with neurological deterioration in 3 of them. CONCLUSION: Multi-fraction SRS is a feasible treatment option associated with good local control and acceptable radiation-induced toxicity in selected patients with recurrent brain metastases.