Abstracts

P08.12. WHOLE BRAIN RADIATION THERAPY OR GAMMA KNIFE RADIOSURGERY IN PATIENTS WITH ≥3 BRAIN METASTASES? RESULTS BASED ON A STUDY OF MORE THAN 600 DUTCH PATIENTS AND A REVIEW OF THE LITERATURE

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OBJECTIVES: The role of Gamma Knife Radiosurgery (GKRS) in the management of patients with ≥3 brain metastases (BM) is still controversial. Should GKRS, whole brain radiation therapy (WBRT) or both be given to these patients? A study was performed comparing the survival times in two Dutch patient populations with ≥3 BM managed with either WBRT or GKRS to try to find answers to these questions.

MATERIAL AND METHODS: Data from patients with ≥3 BM treated with GKRS or WBRT were retrospectively analyzed. Patients with a Karnofsky score of <70 were excluded from the analysis. The survival times were compared to a number of patient and treatment parameters. The survival times following GKRS were also compared to those from patients with ≥3 BM treated with GKRS in Stockholm, Sweden and in Ibaraki, Japan.

RESULTS: The median survival time among the 210 patients treated with WBRT was 3.6 months as compared to 6.5 months among the 481 patients treated with GKRS, P < 0.0001. Thirty percent of the patients treated with GKRS lived one year, 14% two and 5% five years following GKRS as compared to 7%, 1% and 0%, respectively, following WBRT. The median survival times were 4.9 months in the Stockholm and 7.0 months in the Ibaraki patient populations. There was no significant difference in survival times between patients with 3-4 and ≥4 BM in any of the centers neither following GKRS nor following WBRT.

CONCLUSIONS: The survival times were significantly longer following GKRS as compared to following WBRT. Longer survival among the more recently treated patients and salvage treatment of recurrences in the GKRS group both contributed to this difference. The number of BM had no predictive power in this study. Almost a third of the patients survived a year or more in the GKRS group, suggesting that their prognosis is better nowadays than previously assumed.