BM-35. CLINICAL FACTORS IMPACTING SURVIVAL IN BRAIN METASTASES
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BACKGROUND: Metastatic brain tumors are a common complication of systemic cancers. Good performance status, absence of extracranial metastases, age < 65 years and control of the primary tumor are the strongest predictors of survival. Controversy exists regarding best adjuvant treatment for patients. Therefore, careful evaluation of patient features and tumor characteristics must be considered when determining treatment modality.

OBJECTIVES: The aim of the study was to assess the treatment management and clinical features of metastatic brain neoplasms following a neurosurgical procedure and evaluate factors conditioning survival. METHODS: Between January 1st 2009 and January 1st 2013, medical files of patients who underwent a surgical procedure for metastatic brain tumors at Hôpital de l’Enfant-Jésus in Québec City were reviewed. Data on patient features, primary and metastatic neoplasm characteristics, procedure and survival were recorded. Wilcoxon rank test, Kruskal-Wallis test and Cox proportional-hazards regression for survival data were used to assess the impact of treatments and patient characteristics on survival. Efficacy of whole brain radiation therapy (WBRT), stereotactic radiosurgery (SRS) and combined treatment in terms of patient survival were also evaluated.

RESULTS: One hundred and twenty six patient files were reviewed and 109 were included for analysis. The mean survival time for patients was 537.9 days. Age below 65 years (p = 0.08) was a protective factor. WBRT combined with SRS (p < 0.0001), the use of WBRT alone (p = 0.002) or SRS alone (p = 0.004) all significantly improved survival. SRS, when compared to WBRT alone or to combined WBRT and SRS treatment, did not show significant difference in survival. CONCLUSION: Survival in our population is influenced by age and the use of adjuvant treatment. The choice of treatment modality after surgery remains somewhat controversial and our results support the need for further studies to compare WBRT and SRS.