

Surgical treatment of single brain metastases

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Abstract

Recent neurosurgical statistics indicate brain metastases as the most frequent intracerebral tumor. Under these circumstances, single brain metastases study and therapeutic management represent a major problem for a neurosurgeon and his efforts to prolong the patient survival rate and improve their quality of life. This study of the surgical treatment of single brain metastases has focused on a survey of the data which highlight most accurately the efficiency of a therapeutic method: general survival data or survival data function of primary neoplasm, mortality rate and causes, data regarding the connection between survival rate and death cause, tumor relapse rate, post surgery complications and post surgery neurological status. This study has surveyed a group of 320 patients presenting single brain metastases, which have been subject to surgery between 2001-2010. Median general survival rate for the patients with single brain metastases in this group was 9.64 months, regardless of the histologic type of the primary neoplasm. These data complies with other studies in the most majority of neurosurgical series which indicate a median survival of 10 months. The study clearly showed that the longest median survival rate was noticed in case of patients with a neurological death cause (12.54 months) and the shortest in case of patients deceased due to the systemic disease dissemination (5.08 months). A good neurological state prior to surgery, administering a complete surgical treatment, followed by radiotherapy and/or chemotherapy, as well as a good therapeutic control of the primary neoplasm are the decisive factors in obtaining the longest survival rate and the lowest risk in triggering systemic dissemination.

Key words: single brain metastases, surgical treatment, survival rates, recurrences

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