

Extra central nervous system metastases from cerebral glioblastoma multiforme in elderly patients. Clinico-pathological remarks on our series of seven cases and critical review of the literature

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ABSTRACT

Aims and background. The aim of the study was to evaluate the treatment of the extracranial metastases from glioblastoma multiforme in the elderly, discussing their uncommon occurrence and their pathogenesis.

Methods. The authors report seven cases of elderly patients (mean age, 69 years), with an initial diagnosis of cerebral glioblastoma multiforme, treated by a grossly total surgical removal and followed by adjuvant radiotherapy (64 Gy in 6 weeks, using Linac) and adjuvant chemotherapy (temozolomide both concomitant and sequential to radiotherapy).

Results. All patients presented a postoperative course characterized by good functional and clinical conditions (Karnofsky performance scale ≥ 70), which remained unchanged for a mean period of about 21 months (range, 16-23), with no neuroradiological signs of lesion regrowth. After this interval, new clinical signs occurred, and their clinical and radiological investigation showed metastatic repetitions in different sites: lung, liver, humerus and lymph nodes. All the metastases were surgically treated, but regrowth of the brain tumor and progression to deep important neural structures caused the patients' exitus after a mean interval of about 10 months (range, 8-12) from the diagnosis of metastasis.

Conclusions. We found 128 cases of extra CNS metastases in the English literature. The main features of the patients of the previous reports and of those of the present series were analyzed. The main modalities of glioblastoma multiforme spread, the few theories about the rarity of metastasis, and the probable biological, histological and immunogenetic mechanisms involved in the pathogenesis are described. Although several studies have reported a poor outcome in elderly patients, they affirm that the treatment of those with a Karnofsky performance status >60 should be just as aggressive as in younger patients. This allows them to obtain a longer survival time and to also treat metastases, which are uncommon particularly in the elderly.

Key words: elderly patients, glioblastoma multiforme, metastases.

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