A Nonradiated Grade II Glioma That Underwent Delayed Malignant Transformation to a Gliosarcoma with Meningeal Growth and Dissemination.


Abstract

Background Secondary gliosarcomas are rare tumors, especially those arising from a World Health Organization (WHO) grade II glioma not irradiated. We report a case with subtotal resection for a WHO grade II oligoastrocytoma, without adjuvant treatment, whose metaplastic transformation into gliosarcoma suddenly occurred 4 years later with meningeal dissemination. We show a favorable outcome after therapeutic management of this rare entity. Patient A 46 year-old woman underwent surgery for a right premotor WHO grade II oligoastrocytoma discovered incidentally. Because of a subtotal resection with only 1 cc of residue, no complementary therapy was given, and the patient enjoyed a normal life for 4 years. In the meantime, the magnetic resonance images performed every 6 months showed a very low growth rate. Suddenly, the tumor switched toward a gliosarcoma profile with meningeal dissemination. Results Reoperation, radiotherapy, and chemotherapy were performed, enabling a control of the disease with 15 months of follow-up (i.e., with radiologic shrinkage of the multiple lesions and preservation of quality of life). Conclusion A delayed sarcomatous transformation can acutely occur with a low proliferation index in a nonirradiated WHO grade II oligoastrocytoma. Furthermore, an aggressive therapeutic strategy can allow control of secondary gliosarcomas, even in cases of leptomeningeal spreading.

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