ABSTRACT

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The clinical characteristics and outcomes of incidentally discovered glioblastoma.

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OBJECTIVE: With an increase in the number of imaging examinations and the development of imaging technology, a small number of glioblastomas (GBMs) are identified by incidental radiological images. These incidentally discovered glioblastomas (iGBMs) are rare, and their clinical features are not well understood. Here, we investigated the clinical characteristics and outcomes of iGBM.
METHODS: Data of newly diagnosed iGBM patients who were treated at our institution between August 2005 and October 2019 were reviewed. An iGBM was defined as a GBM without a focal sign, discovered on radiological images obtained for reasons unrelated to the tumor. Kaplan-Meier analysis was performed to calculate progression-free survival (PFS) and overall survival (OS).
RESULTS: Of 315 patients with newly diagnosed GBM, four (1.3%) were classified as having iGBM. Health screening was the most common reason for tumor discovery (75.0%). The preoperative Karnofsky performance status score was 100 in three patients. Tumors were found on the right side in three cases. The mean volume of preoperative enhanced tumor lesion was 16.8 cm3. The median duration from confirmation of an enhanced lesion to surgery was 13.5 days. In all cases, either total (100%) or subtotal (95-99%) resections were achieved. The median PFS and OS were 10.5 and 20.0 months, respectively.
CONCLUSIONS: The iGBMs were often small and in the right non-eloquent area, and the patients had good performance status. We found that timely therapeutic intervention provided iGBM patients with favorable outcomes. This report suggests that early detection of GBM may lead to a better prognosis.

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