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Glioblastoma: Prognostic Value of Clinical, Histopathological and Immunohistochemical (p53, EGFR, VEGF, MDM2, Ki67) Parameters

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Abstract : Objective: To describe clinical, histopathological and immunohistochemical profile of glioblastoma in patients and to correlate these findings with patient survival. Material and methods: 30 cases of histopathologically diagnosed glioblastomas were included in this study. These cases were analysed in detail for certain clinical and histopathological parameters. Immunohistochemical staining for p53, epidermal growth factor receptor (EGFR), vascular endothelial growth factor (VEGF), mouse double minute 2 homolog (MDM2) and Ki67 was done and scores were calculated. Results of these findings were correlated with patient survival. Results: A retrospective analysis of the histopathology records and clinical case files was done in 30 cases of glioblastoma (WHO grade IV). The mean age of presentation was 50.6 years with a male predilection. The most common involved site was the frontal lobe. Amongst the clinical parameters, age of the patient and extent of surgical resection showed a significant correlation with the patient survival. Histopathological parameters showed no significant correlation with the patient survival, while amongst the immunohistochemical parameters expression of MDM2 showed a significant correlation with the patient survival. Conclusion: In this study incorporating clinical, histopathological and basic panel of immunohistochemistry, age of the patient, extent of the surgical resection and expression of MDM2 showed significant correlation with the patient survival.

Keywords : glioblastoma, p53, EGFR, VEGF, MDM2, Ki67
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