

Title : GLIOSARCOMAS: The Rising Trend

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Abstract: Introduction: Gliosarcomas are rare tumors of the central nervous system which are highly malignant. They have a very poor prognosis. The epidemiology and natural history of Gliosarcomas are similar to Glioblastoma multiforme. Males are more frequently affected than females (M:F ratio 1.8:1). It is recognized that gliomas can induce sarcomatous transformation in the supporting mesenchymal elements. It affects the temporal lobe more often. The diagnosis of gliosarcoma is based on a biphasic tissue pattern composed of two distinct malignant cells, one component being gliomatous and the other one being malignant mesenchymal differentiation Materials and Methods: We analysed 6 cases of Gliosarcoma. 3 cases were Primary Gliosarcoma and 3 cases were seen in Glioblastoma multiforme patients who developed recurrence. Patients age ranged from 34 – 60 yrs. Male: Female ratio was 5:1. All patients underwent tumor excision and received adjuvant radiotherapy and chemotherapy. Treatment: Patients underwent maximal safe resection and received adjuvant radiotherapy with Tab. Temozolomide 75 mg/ m² daily, followed by adjuvant chemotherapy (Temozolomide 150 mg/m² OD x 5days -6 cycles). The 3 Primary Gliosarcoma patients received IMRT of dose 60 Gy/ 30 fr . The 3 GBM patients who developed recurrence and the histology were gliosarcoma received a dose of 50 Gy/25 fr. Results: The median survival of Gliosarcoma was 14.6 m in this case series which is slightly better than the median survival of 9m in most of the other reports. The median survival of PGS was better than the patients who developed recurrence (19.6 m v/s 9.6 m). In patients who developed recurrence; there were 2 deaths and 1 in PGS due to disease progression. Conclusion: Clinically Gliosarcoma presents the same way as Glioblastoma multiforme. Prognosis is almost the same as GBM. Patients who undergo tumor excision followed by adjuvant radiotherapy and chemotherapy have better survival outcomes. The Incidence of developing Gliosarcoma in recurrence cases is showing a rising trend.