Secondary gliosarcoma

Eighteen SGS patients who had been treated at Tangdu Hospital between 2013 and 2020 were enrolled in this study. Additional 89 eligible SGS patients were identified from 39 studies. The median age for the patients was 53 years old, and the most common location was the temporal lobe. The most common initial diagnosis was glioblastoma (GBM) (72.0%). Radiology revealed enhanced masses in 94.8% (73/77) of patients. Ten patients (10/107, 9.35%) had extracranial metastases at or after SGS diagnosis. Patients with an initial diagnosis of non-GBM and who were younger than 60 years of age were significantly associated with a long duration of disease progression to SGS. After SGS diagnosis, patients with initial non-GBM diagnosis, gross total resection, and chemoradiotherapy exhibited prolonged survival outcomes. Patients who had been initially diagnosed with GBM and received both chemoradiotherapy and active therapy after disease progression to SGS had significantly longer overall survival than patients who did not.

The initial diagnosis of GBM was a poor prognostic factor for SGS. Patients who underwent gross total resection and chemoradiation had better overall survival outcomes than those who did not. However, during treatment, clinicians should be cognizant of possible extracranial metastases [1)]

Primary gliosarcoma PGS and secondary gliosarcoma SGS had distinct clinicopathological profiles and prognoses but shared similar genetic profiles. A study by Vuong et al. facilitates our understanding of how these two malignant brain tumors behave clinically, but future studies will be required to elucidate the genetic pathways of PGS and SGS [2)].

1)
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2)
Vuong HG, Dunn IF. Primary versus secondary gliosarcoma: a systematic review and meta-analysis. J Neurooncol. 2022 Jun 29. doi: 10.1007/s11060-022-04057-w. Epub ahead of print. PMID: 35768633.