Metastatic Gliosarcoma Due to Iatrogenic Contamination During the Surgery of Gliosarcoma

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Gliosarcomas represent a rare but well-established entity in the classification of central nervous system neoplasms. According to the World Health Organization classification of central nervous system tumors, it is defined as a histologic subtype of glioblastoma multiforme consisting of both glial and mesenchymal components. Compared to other tumors in the central nervous system, gliosarcoma has greater propensity for extracranial metastases. It seems the sarcomatous components play the main role in extracranial metastases. Most extracranial metastases of gliosarcoma are located in the lung and liver, and there are reports of metastatic foci in cervical lymph nodes, spleen, adrenal glands, kidneys, oral mucosa, skin, bone marrow, skull, ribs, and spine (1). The Beijing Tiantan neurosurgical center reviewed 43 cases of primary gliosarcoma between 2007 and 2009, among which 1 case had multiple metastases in bone (Yonggang Wang, Maozhi Zhang, Song Lin, et al. Surgical treatment of intracranial primary gliosarcoma (PGS); unpublished data; 2010). Hematogenous dissemination was the main route of extracranial metastases. In this case, the metastases in the right leg and scalp were obviously iatrogenic. Previous literature also had reported subcutaneous metastasis in the scalp after craniotomy (3, 2). This also points to its malignancy and propensity for extracranial metastases. Neurosurgeons should avoid iatrogenic contamination during gliosarcoma surgery.

REFERENCES