ABSTRACT

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Primary Spinal Cord Astrocytomas: Two Center Clinical Experience of Low- and High-grade Lesions.

Snyder MH, Yu-Der Wang A, Ampie L, Sarathy D, Chatrath A, Asthagiri AR, Shaffrey CI, Smith JS, Shaffrey ME, Yen CP, Buchholz AL, Syed HR, Kryzanski J, Wu JK, Heilman CB.

OBJECTIVE: Primary spinal cord astrocytomas are rare, fatal, and poorly studied.

METHODS: A two-center, retrospective analysis of primary spinal cord astrocytoma patients from 1997-2020. Patients with drop metastases or without at least one follow-up were excluded.

RESULTS: 7 WHO grade I, 6 grade II, 7 grade III, and 4 grade IV astrocytoma patients. Older patients had higher grades (median 20 years in grade I vs. 36.5 in grade IV). Median follow-up was 15 months. Thirteen patients were discharged to rehabilitation. Eight patients demonstrated radiographic progression. Adjuvant therapy utilized more in higher grades (5 of 13 grades I-II vs. all 11 grades III-IV). Six patients died (1 death in grades I-II vs. 5 in grades III-IV). Ten patients had worsened symptoms at last follow-up. Median progression-free survival in grade I, II, III, and IV tumors was 116, 36, 8, and 8.5 months, respectively. Median overall survival in grade I, II, III, and IV tumors was 142, 69, 19, and 12 months, respectively. Thrombotic complications occurred in two patients, one with IDH-wt glioblastoma.

CONCLUSION: Outcomes worsen with higher grades and lead to difficult postoperative periods. Clinicians should be vigilant for thromboembolic complications. Further research is needed to understand these rare tumors.

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