

HIV RELATED EBV-ASSOCIATED SMOOTH MUSCLE TUMOR OF THORACIC SPINE : A RARE CASE REPORT

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Introduction: Epstein-Barr Virus-associated smooth muscle tumors (EBV-SMTs) commonly occur in immuno-compromised patients. This includes HIV/AIDS and in solid organ transplantation. In 1990s, the role of EBV in the development of soft tissue tumors was first described. The studies show high level of EBV replication, EBV in-situ hybridization positivity, and expression on viral genes in neoplastic cells. Most commonly, it has an indolent course, locally aggressive and rarely causing death. It is observed in the genitourinary or gastrointestinal tract, but rarely in spine. The rarity of this results in no established standard care. We report a case of an HIV-infected patient with a primary EBV-associated SMT of the spinal column successfully treated with surgical resection.

Discussion: A 36 year-old man with an acquired HIV infection for 5 months, presented with progressive worsening of bilateral lower limb weakness for 2 weeks associated with numbness. He had no trauma or constitutional symptoms. He had last normal neurological level of T10 with ASIA grade D. He is on oral Efavirenz 600mg OD with latest CD4 count of 38 cells/mm³. MRI demonstrated heterogeneously solid lesion at T10 vertebral body with posterior elements involvement and intraspinal extension compressing the spinal cord causing severe spinal canal stenosis and cord edema. The lesion measuring 4.6x3.4x3.4 cm. The Left T10 exiting nerve root was involved. The patient underwent T10 transpedicular debridement and tumor excision with T8-T12 pedicle screw fixation for stabilization and mesh cage insertion. Intra-operatively, a well-encapsulated tissue mass invading from left pedicle to the left lateral 2/3 of T10 body. HPE had positive in-situ hybridization for EBV-encoded small RNA (EBER). Ki67 immunostain demonstrated 10% proliferative index. A mitotic count yielded low mitotic activity. During follow-up, he improved neurologically.

Conclusion: Surgical resection remains the first-line therapy for EBV-SMTs in unifocal lesion. Though chemotherapy and radiotherapy also had been described.