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### Spinal Cord Ependymoma: Neurological Impact on Quality of Life

**Abstract:** Background: Spinal cord ependymoma are rare tumors of the central nervous system and account for approximately sixty percent of all intramedullary tumors in adults. In comparison to other cancers, ependymoma are usually benign, slow growing tumors that is usually more common during the fourth and fifth decade when one is at the most active...

**Full Abstract:** Background: Spinal cord ependymoma are rare tumors of the central nervous system and account for approximately sixty percent of all intramedullary tumors in adults. In comparison to other cancers, ependymoma are usually benign, slow growing tumors that is usually more common during the fourth and fifth decade when one is at the most active and social time of life. They are classified according to the World Health Organization (WHO) criteria into 3 subtypes. Myxopapillary and sub-ependymoma, grade I which is consider the most benign. ependymoma, grade II also known as classic and semi-benign and anaplastic ependymoma tumors, grade III, the most infiltrative of the three. Spinal cord ependymoma symptoms are usually atypical and may be ongoing and linger for years prior to the initial diagnosis. Due to these unusual symptoms, this may lead to a delayed diagnosis. Spinal cord symptoms are tumor location dependent, however, patient may present with common neurological symptoms such as radicular or local pain, motor weakness, numbness, tingling, sphincter or sexual dysfunction. Nevertheless, the most frequently reported symptom is back pain. The gold standard treatment for spinal ependymoma is surgical resection while maintaining neurological function. Conclusion: As the goal of surgery is for gross total resection of the tumor and preserving neurological function, that is not always the outcome. According to a retrospective monocentric study from 2009-2020 performed on spinal cord ependymoma patients, residual neurological deficit impaired ability to work, decreased engagement in sports activities, reduced ability to return to work and impaired quality of life in previously healthy patients. Sixty-seven percent of participants reported pain, coordination problem and fear of injury as reason for not engaging in activity. Patients also changed from full time to part-time work due to neurological deficits. This study also noted that a comprehensive rehabilitation program, screening program for the evaluation of quality of life and providing a program to assist in finding ways to improve daily neurological symptoms was lacking. Role of the APP: As advanced Practice providers, we can play a role by optimizing the patient's pre-surgery visit by providing the necessary referral to rehab and other services based on neurological symptoms for baseline evaluation. Evaluate for enrollment in the Primary tumor research and outcome network (PTRON) study which collects health related quality of life outcome. Refer to inpatient rehabilitation and community services post-surgery as needed.