Oral Communication

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Beyond Cure: The Transformative Role of Physical Medicine and Rehabilitation in Palliative Care for Aggressive Central Nervous System Tumors

Topic: Rehabilitation Across the Continuum of Care

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BACKGROUND

Ependymomas are rare central nervous system (CNS) neoplasms originating from ependymal cells lining the brain's ventricles and spinal cord's central canal. Histologically, they are classified into WHO grades I-III, being grade III tumors (anaplastic ependymomas) highly aggressive and associated with a poor prognosis. Standard treatment includes maximal surgical resection and radiotherapy; chemotherapy's role remains controversial.

In this context, Physical Medicine and Rehabilitation (PM&R) plays a pivotal role in managing the debilitating sequelae of the disease and its treatment. This case highlights the importance of a multidisciplinary approach, where PM&R complements oncological treatments to enhance patient's comfort and functionality, even in cases of limited life expectancy.

CASE DESCRIPTION

A 23-year-old female with a multifocal anaplastic spinal ependymoma presented with lesions at the cervicodorsal junction, lower dorsal region (D10-D12) and a metastatic lesion in the middle cerebellar peduncle. The patient underwent partial tumor resection at D10-D12 levels in August 2024, followed by craniospinal radiotherapy completed by October 2024.

Post-treatment, the patient was evaluated by PM&R, presenting with complete paraplegia (ASIA A) and a neurological level of injury at D9. The patient also exhibited severe spasticity and spasms in the lower limbs (Penn scale grade 3), affecting her positioning and activities of daily living (ADLs), neurogenic bladder and bowel dysfunction. The patient initiated a multimodal PM&R program including pharmacological optimization with baclofen plus tizanidine to manage spasticity and spasms; regular physiotherapy sessions focusing on preserving joint mobility, reducing spasticity, improving upper limb strength, and optimizing functional capacity for basic ADLs; structured bowel and bladder management using oral bisacodyl and suppository regimens and continuous catheterization, respectively (according to the patient's preference). Assistive devices, such as nighttime splints (ankle-foot orthosis) for lower limbs, lightweight wheelchair with a pressure-relief cushion, toilet chair and transfer board, were prescribed to enhance mobility and independence.

DISCUSSION

This case highlights the challenges of managing CNS tumors and the critical role of PM&R in addressing severe neurological deficits and palliative care needs. By focusing on symptom control, functionality optimization, and prevention of secondary complications, PM&R not only improves quality of life but also empowers patients to maintain autonomy and dignity.

CONCLUSION

PM&R is indispensable for improving functional status and quality of life in aggressive CNS tumors with poor prognosis. This case demonstrates how targeted interventions, including pharmacological management, physiotherapy and assistive device prescription, can significantly improve patient's comfort and functionality, reinforcing the value of PM&R in palliative oncology care.

Statement of Disclosures

None

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