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Surgery for pediatric low-grade gliomas within the vermis

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Abstract

Pediatric low-grade gliomas (pLGGs) in the cerebellar vermis present unique challenges due to their intricate anatomical location and potential impact on critical neurological functions. Surgical intervention remains a cornerstone in the management of these tumors, aiming to achieve maximal tumor resection while preserving neurological function. In this review, the authors will discuss anatomical consideration and will explore current surgical techniques and strategies employed in the treatment of cerebellar vermis pLGGs such as the midline and lateral suboccipital approaches, as well as endoscopic-assisted technique. Additionally, we will emphasize the importance of intraoperative neurophysiological monitoring (IONM) in ensuring safe and effective tumor resection. Overall, this review provides insights into the neurosurgical approach of pLGGs in the cerebellar vermis.

Keywords: Pediatric low-grade gliomas; Surgery; Tumor; Vermis.

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