

Childs Nerv Syst. 2024 Aug 29. doi: 10.1007/s00381-024-06527-0. Online ahead of print.

Upper brainstem pediatric low-grade gliomas: review and neuroendoscopic approach

Roberto Alexandre Dezena ¹, Murillo Martins Correia ², Lívia Grimaldi Abud Fujita ², Daniel Gonçalves de Souza ², Luiz Fernando Alves Pereira ², Gustavo Branquinho Alberto ², Luíza Carolina Moreira Marcolino ², Larissa Batista Xavier ², Samuel Pedro Pereira Silveira ²

Affiliations

PMID: 39207527 DOI: [10.1007/s00381-024-06527-0](https://doi.org/10.1007/s00381-024-06527-0)

Abstract

Pediatric brain tumors, particularly those affecting the brainstem, present a significant challenge due to their intricate anatomical location and diverse classification. This review explores the classification, anatomical considerations, and surgical approaches for pediatric brainstem tumors, focusing on recent updates from the World Health Organization (WHO) classification. Brainstem tumors encompass a spectrum from diffuse gliomas to focal intrinsic and exophytic types, each presenting unique clinical and surgical challenges. Surgical strategies have evolved with advancements in neuroimaging and surgical techniques, emphasizing approaches such as neuroendoscopy and tailored incisions to minimize damage to critical structures. Despite the complexities involved, recent developments offer promising outcomes in tumor resection and patient management, highlighting ongoing advancements in neurosurgical care for pediatric brain tumors.

Keywords: Brain tumor; Brainstem; Neuroendoscopy.

© 2024. The Author(s), under exclusive licence to Springer-Verlag GmbH Germany, part of Springer Nature.

[PubMed Disclaimer](#)