Childs Nerv Syst. 2023 Feb 10. doi: 10.1007/s00381-023-05851-1. Online ahead of print.

Pediatric spinal cord diffuse midline glioma with H3 K27M-alteration with leptomeningeal dissemination: a rare case with intracranial hypertension onset and no spinal cord-related symptom

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PMID: 36759369 DOI: 10.1007/s00381-023-05851-1

Abstract

Purpose: Spinal cord diffuse midline glioma (DMG) with H3 K27-alteration is a group of spinal cord high-grade glioma with poor outcome. We present a case with rare onset symptom pattern of pediatric spinal DMG, contributing to the understanding of the clinical presentations and natural history of pediatric spinal cord DMG.

Methods and results: A 7-year-old boy was admitted due to symptoms of intracranial hypertension without obvious spinal cord-related symptoms. Head radiological examinations, blood and cerebral spinal fluid tests did not support intracranial lesion, infection, or autoimmune diseases. Spinal magnetic resonance imaging revealed intraspinal occupying lesion with leptomeningeal dissemination. Pathology of the lesion verified DMG with H3 K27M-alteration.

Conclusion: Pediatric DMG with leptomeningeal dissemination could present with initial symptoms of intracranial hypertension without obvious spinal cord-related symptoms. Spinal cord examinations in cases of intracranial hypertension with negative head radiological examination results could be valuable in finding the etiology.

Keywords: Clinical presentation; Intracranial hypertension; Leptomeningeal dissemination; Pediatric; Spinal cord diffuse midline glioma with H3 K27M-mutant.

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