

## **Successful Outcome in Treating Ventriculitis with Intrathecal Colistin in a Child**

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**CNS infections due to multi-resistant strains of Acinetobacter pose a serious complication in neurosurgical patients in recent years. The widespread use of antibiotics may have altered the epidemiology of post-neurosurgical CNS infections. Antimicrobial agents to which these strains are susceptible have poor central nervous system (CNS) penetration.**

**We report a case of a five-year-old female patient who was diagnosed with Juvenile Pilocytic Astrocytoma causing hydrocephalus. The tumor was surgically resected. During the procedure, an external ventricular drain (EVD) was inserted. Postoperatively, the patient developed ventriculitis and meningitis. Initially, systemic colistin was administered for four weeks with no improvement in the patient's clinical condition, and the CSF cultures remained positive. Intrathecal colistin was then initiated as a last resort; the patient showed improvement clinically and cerebrospinal fluid (CSF) culture was negative on the fifth day of treatment.**

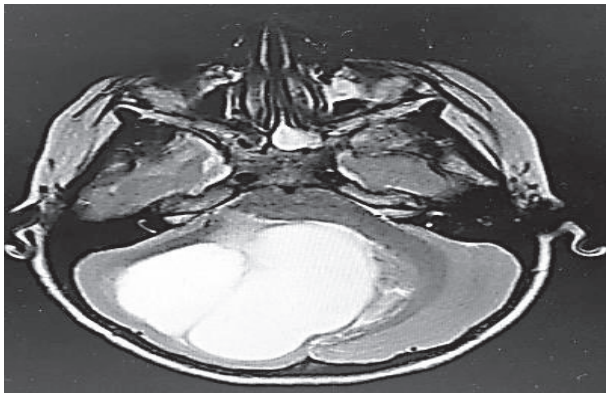


Figure 1: Axial MRI T2-Weighted Image Showing Cerebellar Hyperintense Lesion



83% and 92%, respectively; three patients (13%) developed chemical ventriculitis and one (4%) had treatment-associated seizures<sup>6</sup>. This convincing data led the team to initiate intrathecal colistin as the last therapeutic resort.

## CONCLUSION

**Our study shows that intrathecal colistin is an effective treatment option for MRAB CNS infection. To the best of our knowledge based on PubMed and other medical databases, it is one of the first few reported cases in pediatric population in English literature, and it is the first reported case in the Kingdom of Saudi Arabia. This case report and others reflect the potential safety and efficacy of intrathecal colistin in the management of MRAB CNS infection.**

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**Author Contribution:** All authors share equal effort contribution towards (1) substantial contributions to conception and design, acquisition, analysis and interpretation of data; (2) drafting the article and revising it critically for important intellectual content; and (3) final approval of the manuscript version to be published. Yes.