Review Childs Nerv Syst. 2023 Apr 18. doi: 10.1007/s00381-023-05950-z. Online ahead of print.

Intratumoral catheter placement in pediatric patients with diffuse midline gliomas

Maria Eugenia Badaloni [1], Agustin Ruiz Johnson [2], Romina Argañaraz [2], Beatriz Mantese [2]

PMID: 37072561 DOI: 10.1007/s00381-023-05950-z

Abstract

Introduction: Diffuse midline brainstem gliomas have a poor prognosis and are generally not amenable to surgical resection. Occasionally, palliative surgical procedures can be performed to improve the quality of life of these patients. We describe three patients with solid-cystic brainstem gliomas in whom an Ommaya reservoir catheter was placed to reduce mass effect.

Objectives: To describe the characteristics, indications for, and operative technique of Ommaya reservoir catheter placement in patients with solid-cystic diffuse midline glioma.

Materials and methods: A review was conducted of the medical records of pediatric patients with solid-cystic diffuse midline glioma H3 K27-altered, treated with an Ommaya reservoir at Hospital J.P. Garrahan between 2014 and 2021 together with a search of the literature.

Results: Three cases of stereotaxic Ommaya placement in solid-cystic diffuse midline gliomas, H3 K27M-altered were identified. After the procedure, clinical improvement and reduction of the size of the tumor cyst size was achieved. No associated complications were seen. At the time of the study, one patient died, and the remaining two patients continued in follow-up at our hospital.

Conclusion: We believe that the placement of an intratumoral Ommaya reservoir catheter may be considered a therapeutic option to improve symptoms and quality of life of selected patients with solid-cystic diffuse midline glioma.

Keywords: Diffuse midline glioma; Histone; Ommaya; Radiotherapy; Symptoms.