Intraventricular meningioma case reports

A 27-year-old girl, presented with the usual symptoms of intraventricular mass in an emergency. After shunt surgery, a clinical diagnosis of ependymoma was formed with the differential of high-grade glioma. Squash tissue was difficult to crush displaying tight clusters of spindle cells with necrosis in the background. Definitive histology revealed high-grade spindle cell neoplasm disposed of in sheets with brisk and atypical mitosis. Only a focal whorling pattern was seen. Large cells with eccentric cytoplasm, reminiscent of rhabdoid cells were also seen. Immunohistochemistry was positive for vimentin and EMA and negative for GFAP. The final diagnosis of Anaplastic meningioma was dispatched. The histological pattern of the present case, young age of presentation, and presence of Rhabdoid cells make it unusual. Though rare but intraventricular meningiomas must also be kept in clinical radiological differentials apart from the usual ependymoma at this location [1)]

Rai et al. report a case of surgical track and scalp implantation of an atypical intraventricular meningioma following excision [2)].

A case of microsurgical resection of incidental intraventricular meningioma in a 32-year-old female patient who was admitted to the hospital due to the sudden loss of consciousness, retrograde amnesia, and nausea following head trauma. Routine brain magnetic resonance imaging revealed an irregular expansive formation located in the occipital horn of the right lateral ventricle showing heterogeneous contrast enhancement. The patient underwent right-side temporal osteoplastic craniotomy with total tumor microsurgical resection followed by external ventricular drainage and recovered fully afterward. Histopathologic analysis of tumor tissue samples confirmed the tumor as meningioma WHO grade I. Postoperative brain computed tomography confirmed complete tumor resection. In conclusion, intraventricular meningiomas are rather rare extra-axial tumors and may present with various symptoms depending on their size and difficult location. The development of most modern neuroimaging methods offers the opportunity for precise and accurate diagnosis, better surgical planning, and favorable outcome. Microsurgical gross resection utilizing intraoperative neuromonitoring and cutting-edge neurosurgical armamentarium remains the treatment of choice for this location-challenging and surgically demanding, predominantly benign intracranial tumors [3)].

A 35-year-old male Chinese patient presented with dizziness that lasted for a week, without relief. Magnetic resonance imaging (MRI) revealed a 2.0 cm × 1.5 cm × 3.0 cm-sized mass located in the left lateral ventricle trigone. The tumor was small and likely non-malignant. Therefore, the patient received conservative treatment and regular follow-ups. In June 2017, the patient experienced sudden severe headache, dizziness, and vomiting.

Diagnosis and intervention: MRI revealed that the mass in the left lateral ventricle trigone had increased to 5.0 cm × 7.0 cm × 8.0 cm over 4 years. The patient underwent surgical resection via the left parietal-occipital approach. Two months postoperatively, the patient received 60 Gy local radiotherapy. The postoperative histopathology suggested that the mass was a cystic papillary meningioma.

Outcomes: Two years after the operation, the patient was asymptomatic, and no recurrence of the lesion was noted on MRI.

Conclusion: The diagnosis of intraventricular cystic papillary meningioma depends mainly on its histology and imaging features. Total resection and adjuvant radiotherapy can result in a relatively good prognosis of patients with intraventricular cystic papillary meningiomas [4].

Muley et al. reported two cases who presented with symptoms of raised intracranial pressure and on evaluation were found to have associated hydrocephalus. Both these patients underwent surgical excision of the tumour by frontal transcortical approach and histopathology report confirmed transitional meningioma in them. Only twenty seven cases of intraventricular meningiomas in children have been reported till date. Their definitive treatment is surgery alone and total excision of the tumor is curative. Possibility of neurofibromatosis as a differential should also be considered in their management [5].

1)
Agarwal P, Gupta N, Srivastava A, Kumar M, Kumar S, Srivastava C. Anaplastic Intraventricular Meningioma with Rhabdoid Features: An Unusual Tumor with Usual Clinical Presentation. Clin Pathol. 2022 Jul 29;15:2632010×221115157. doi: 10.1177/2632010×221115157. PMID: 35923857; PMCID: PMC9340328.
2)
Rai HIS, Singh J, Singh M, Singh J, Gupta AK, Samala R, Veerabhadaraiah P, Nambirajan A. Surgical Track and Scalp Implantation Following Intraventricular Meningiomas Excision: A Report with Review of Literature. Neurol India. 2022 Jan-Feb;70(1):31-36. doi: 10.4103/0028-3886.338675. PMID: 35263850.
3)
Raguž M, Rotim A, Sajko T, Jurilj M, Splavski B, Rotim K. MICROSURGICAL MANAGEMENT OF A RARE INCIDENTAL INTRAVENTRICULAR MENINGIOMA: A CASE REPORT AND RELEVANT LITERATURE REVIEW. Acta Clin Croat. 2021 Mar;60(1):156-160. doi: 10.20471/acc.2021.60.01.24. PMID: 34588738; PMCID: PMC8305356.
4)
Cheng Z, Chao Q, Zhang H, Wang DW, Shu HS. Intraventricular cystic papillary meningioma: A case report and literature review. Medicine (Baltimore). 2020 Jul 31;99(31):e21514. doi: 10.1097/MD.0000000000021514. PMID: 32756190; PMCID: PMC7402910.
5)
Muley KD, Shaikh ST, Deopujari CE, Andar UB. Primary intraventricular meningiomas in children-experience of two cases with review of literature. Childs Nerv Syst. 2017 Sep;33(9):1589-1594. doi: 10.1007/s00381-017-3483-1. Epub 2017 Jun 22. Review. PubMed PMID: 28643039.

From:
https://neurosurgerywiki.com/wiki/ - **Neurosurgery Wiki**

Permanent link:
https://neurosurgerywiki.com/wiki/doku.php?id=intraventricular_meningioma_case_reports

Last update: **2024/06/07 02:50**