World Health Organization Grade III Supratentorial Extraventricular Ependymomas in Adults: Case Series and Review of Treatment Modalities

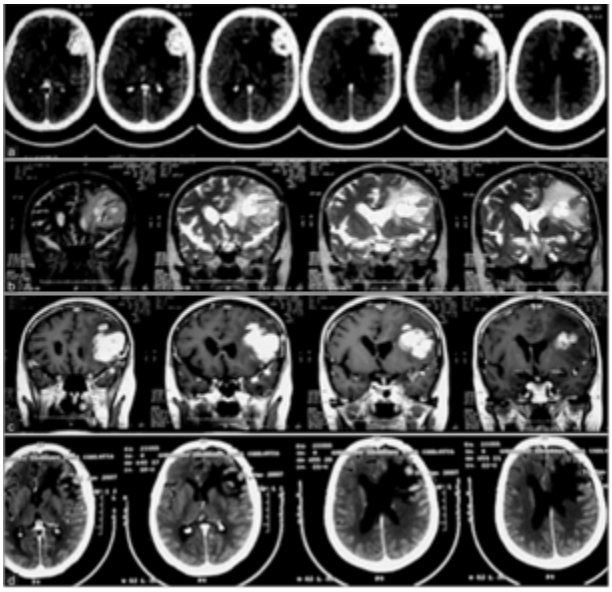
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Abstract

Context: Supratentorial ependymomas and their anaplastic variants are relatively uncommon central nervous system neoplasms that afflict both adults and children. **Aims:** Discuss the clinical and pathological features of patients with anaplastic ependymomas involving an extraventricular supratentorial location and review modalities and options of treatment for those rare tumors. **Settings and Design:** Whereas the treatment algorithm in the pediatric population is well established, however, treatment in the adult population is less defined. Treatment options are exposed through the author's cases and review of the literature. **Subjects and Methods:** In our case series of two adult patients with supratentorial ependymomas World Health Organization (WHO) Grade III (anaplastic variant), patients presented in both cases in the emergency room after having a generalized tonic–clonic seizure at home the first case, and mild hemiparesis the second case. **Results:** Patients underwent surgical treatment, and a gross total resection was achieved in both cases. The histopathological examination revealed a diagnosis of anaplastic ependymoma (WHO Grade III). Both patients had additional radiotherapy, and in the first case, adjuvant platinum-based chemotherapy was administered due to leptomeningeal gliomatosis. **Conclusion:** In our experience, gross total resection was achieved in all patients with supratentorial extraventricular ependymomas WHO Grade III with additional radiotherapy and platinum-based chemotherapy. Patients require initial close serial imaging follow-up. The role of chemotherapy is still uncertain but may be necessary in younger patients and in tumors that behave more like the pediatric ependymomas.

Image



Recent Publications

1. Amirian ES, Armstrong TS, Gilbert MR, Scheurer ME. Predictors of survival among older adults with ependymoma. J Neurooncol 2012;107:183-9.
2. Metellus P, Barrie M, Figarella-Branger D, Chinot O, Giorgi R, Gouvernet J, *et al.* Multicentric French study on adult intracranial ependymomas: Prognostic factors analysis and therapeutic considerations from a cohort of 152 patients. Brain 2007;130:1338-49.
3. Barone BM, Elvidge AR. Ependymomas. A clinical survey. J Neurosurg 1970;33:428-38.
4. Coulon RA, Till K. Intracranial ependymomas in children: A review of 43 cases. Childs Brain 1977;3:154-68.
5. Mork SJ, Loken AC. Ependymoma: A follow-up study of 101 cases. Cancer 1977;40:907-15.

Biography

Dr Fotios Kalfas is Director of Neurosurgical Department of Galliera Hospitals in Genova Italy since June 2019. He has completed his neurosurgical training in 2005 at University of Sassari and later he has enriched his knowledge in Neurosurgery through fellowship \attendance at the most important centres all over the world such as Helsinki (FI), Barrows Neurological Institute (USA), Duke University North Carolina (USA), Washington University, Seattle (USA), Mayo Clinic Jacksonville (USA), Stanford University, Palo Alto (USA), Campinas, Sao Paolo (Brazil), Sapporo- Teishinkai Stroke Centre, Hokkaido (Japan).
He has published a lot of papers in reputed journals and has been serving as an editorial board member of British Medical Journal.
His main areas of research and clinical interest include surgical treatment of cerebrovascular disease , neuro-oncology, Radiosurgery and Spinal degenerative disease.

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Dr. Claudia Scudieri is a neurosurgeon in training at Vita Salute University San Raffaele Hospital in Milan since November 2016. Since April 2019 she is attending her training at Galliera Hospitals in Genoa under the direction and the guidance of Dr Kalfas. She is an active member of European Association of of Neurosurgical Societies (EANS) and of Società Italiana di Neurochirurgia (Sinch). She has published different papers as results of her research activity in the field of Neurooncology, Radiosurgery. Her field of interest include cerebrovascular pathologies, Neuro-trauma and Spine degenerative surgery.

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