Microsurgical resection of giant intraventricular meningioma

JAMES K. LIU, M.D.

Departments of Neurological Surgery and Otolaryngology-Head and Neck Surgery, Center for Skull Base and Pituitary Surgery, Neurological Institute of New Jersey, University of Medicine and Dentistry of New Jersey, New Jersey Medical School, Newark, New Jersey

Intraventricular meningiomas are rare tumors, accounting for approximately 0.5 to 3% of all intracranial meningiomas. The majority arise in the atrium of the lateral ventricle. The surgical management of these tumors remains a considerable challenge because of their deep location and proximity to critical structures. Complete resection, if safely possible, should be the goal of surgery since this results in the best rates of local control. Although various approaches exist to access the lateral ventricular system, selection of the optimal approach should be individualized to the patient based upon the location of the tumor within the ventricle, the tumor size, the origin of the vascular supply to the tumor, and the relationship to neighboring neurovascular structures at risk. In this operative video manuscript, the author demonstrates an illustrative step-by-step technique for microsurgical resection of a giant intraventricular meningioma of the left atrium via a transcortical parieto-occipital approach. The patient illustrated in this video presented with a large recurrent meningioma (> 5 cm) approximately 10 years after the initial resection. The tumor had grown around a pre-existing shunt catheter and resulted in loculated hydrocephalus. A complete resection and shunt revision were both performed at the same sitting. The operative technique and surgical nuances, including the surgical approach, intradural tumor removal, closure, and management of hydrocephalus are illustrated in this video atlas.

The video can be found here: <http://youtu.be/vpdmZ1ccWSM>.
(<http://thejns.org/doi/abs/10.3171/2013.V1.FOCUS12352>)

KEY WORDS • **microsurgical** • **resection** • **giant intraventricular meningioma** • **video**

Manuscript submitted October 24, 2012.

Accepted November 2, 2012.

Please include this information when citing this paper: DOI: 10.3171/2013.V1.FOCUS12352.

Address correspondence to: James K. Liu, M.D., Department of Neurological Surgery, University of Medicine and Dentistry of New Jersey, New Jersey Medical School, 90 Bergen Street, Suite 8100, Newark, New Jersey 07101. email: james.liu@umdnj.edu.