

Microsurgical Resection of Brain Stem Ependymoma: 2-Dimensional Operative Video

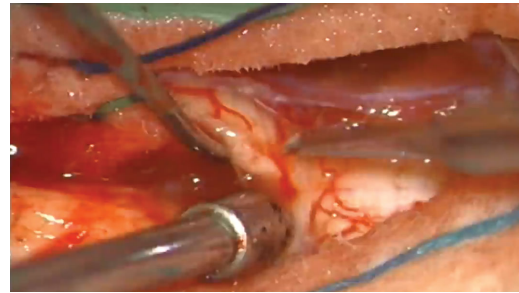
Mirza Pojskić, MD*, Vincent Nguyen, MD[‡], Goran Lakičević, MD, PhD[§], Kenan I. Arnautović, MD, PhD^{‡,¶}

*Department of Neurosurgery, University of Marburg, Marburg, Germany;

[‡]Department of Neurosurgery, University of Tennessee Health Science Center,

Memphis, Tennessee; [§]Department of Neurosurgery, University Clinical Hospital

Mostar, Mostar, Bosnia and Herzegovina; [¶]Semmes Murphey Neurologic and Spine Institute, Memphis, Tennessee



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Correspondence: Kenan Arnautović, MD, PhD, Semmes Murphey Neurologic and Spine Institute, 6325 Humphreys Blvd., Memphis, TN 38120. Email: kenanarnaut@yahoo.com

The brainstem is a less-common location for ependymomas than the spinal cord where they are the most common adult intramedullary tumor.¹⁻¹⁸ In this first video case report in the peer-reviewed literature, we demonstrate microsurgical resection of a medulla oblongata ependymoma.

There are several case reports of medulla oblongata ependymomas^{1,3,5,6,13} and a few series of spinal cord ependymomas that included cases of ependymomas of the cervicomedullary junction.^{9,10} The goal of surgery was to stabilize the preoperative neurological function; favorable outcome is achieved in patients with good preoperative statuses and well-defined tumor boundaries.⁹ Although gross total resection (GTR) provides the best overall outcome, it is most effective for classic grade

II tumors, but not grade I (myxopapillary) and ependymomas, which have a lower GTR rate.^{14,15}

A 55-yr-old patient developed 4-extremity weakness and dysphagia. Pre-/postcontrast magnetic resonance imaging (MRI) revealed centrally located brainstem lesion situated at the lower half of the medulla oblongata. Surgery, performed by the senior author, was performed in the prone position with a small suboccipital craniectomy and C1 posterior arch removal, followed by pia opening and posterior midline myelotomy. Tumor was debulked, dissected from the white matter, and resected. Histology revealed ependymoma (World Health Organization grade II). Postoperative pre-/postcontrast MRI revealed total resection. The patient's neurological deficit completely resolved postoperatively.

Written consent was obtained from the patient.

KEY WORDS: Brain stem ependymoma, Medulla oblongata ependymoma, Brain stem tumor, Tumor, Ependymoma, Microsurgical resection

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Disclosures

The authors have no personal, financial, or institutional interest in any of the drugs, materials, or devices described in this article.

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