Resection of cervical ependymoma

GIUSEPPE LANZINO, M.D.¹, SAUL F. MORALES-VALERO, M.D.¹, WILLIAM E. KRAUSS, M.D.¹, MARIO CAMPERO, M.D.², AND W. RICHARD MARSH, M.D.¹

¹Department of Neurologic Surgery, Mayo Clinic, Rochester Minnesota; ²Department of Neurology, Clinica Alemana-Universidad del Desarrollo, Santiago, Chile

Intramedullary ependymomas are surgically curable tumors. However, their surgical resection poses several challenges. In this intraoperative video we illustrate the main steps for the surgical resection of a cervical intramedullary ependymoma. These critical steps include: adequate exposure of the entire length of the tumor; use of the intraoperative ultrasound; identification of the posterior median sulcus and separation of the posterior columns; identification of the plane between the spinal cord and the tumor; mobilization and debulking of the tumor and disconnection of the vascular supply (usually from small anterior spinal artery branches). Following these basic steps a complete resection can be safely achieved in many cases.

The video can be found here: [http://youtu.be/QMYXC_F4O4U](http://youtu.be/QMYXC_F4O4U).

**Key Words**

- ependymoma
- spinal cord neoplasms
- surgical procedure
- intraoperative video

Manuscript submitted July 1, 2014. Accepted July 18, 2014.

Please include this information when citing this paper: DOI: 10.3171/2014.V3.FOCUS14378.

Address correspondence to: Giuseppe Lanzino, M.D., Department of Neurologic Surgery, Mayo Clinic, 200 SW First Street, Rochester, MN 55905. email: lanzino.giuseppe@mayo.edu.