

Video Abstract

Unedited microneurosurgery of a solitary fibrous tumor of the pineal region

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Abstract

Background: Solitary fibrous tumor/hemangiopericytoma is a new combined entity introduced in the 2016 World Health Organization classification of tumors of the central nervous system for grade I–III soft-tissue tumors. While grades II and III present more aggressive course and might require adjuvant radiochemotherapy, grade I tumors have a good outcome after gross total resection. In this video-abstract, we present an unedited microneurosurgery of a histologically confirmed benign solitary fibrous tumor of the pineal region performed by a senior author (JH). Our aim is to demonstrate the efficiency and safety of our microsurgical technique into deep brain territories under the principle “simple, clean, and preserving the normal anatomy.” For this, a paramedian supracerebellar infratentorial approach and a proper praying sitting position are essential.

Case Description: A patient with a history of slow progressive hydrocephalus was placed in a sitting praying position. The pineal region was accessed over the right cerebellar hemisphere following a right paramedian supracerebellar infratentorial approach. The lesion identified after a lateral opening of the quadrigeminal cistern followed partial debulking. Small vessels running on the surface of the tumor were coagulated and cut. After a careful dissection and devascularization of the lesion, the tumor was pulled out using long ring microforceps and long sharp bipolar forceps as well. The final steps included detachment of some tumoral remnants from the internal cerebral veins and meticulous attention to any bleeding securing complete hemostasis of the surgical site. The postoperative course was uneventful with only slight and occasionally double vision. The patient is alive and free of recurrence almost 4 years after surgery.

Conclusion: This unedited video offers all detailed aspects that a neurosurgeon like senior author JH considers essential when performing an efficient and safe surgery into the pineal region for this very rarely documented solitary fibrous tumor.

Videolink: <http://surgicalneurologyint.com/videogallery/pineal-tumor>

Key Words: Pineal region, sitting position, solitary fibrous tumor, supracerebellar infratentorial approach, unedited microsurgical video

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