

Video Abstract

Unedited pineal cyst microneurosurgery

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Received: 16 October 18 Accepted: 22 November 18 Published: 24 December 18

Abstract

Background: Pineal cysts are benign lesions of the pineal gland without a clear etiology. Currently, different approaches are described to deal with pineal region lesions and particularly with pineal cysts. Although endoscopic procedures are becoming more frequent, some technical advantages of the microsurgical resection still make it the gold standard. Our aim was to demonstrate the efficiency and safety of our microsurgical technique into deep brain territories under the principle "simple, clean, and preserving the normal anatomy." Herein, we present an unedited microneurosurgery of a histologically confirmed large benign pineal cyst.

Case Description: A patient with antidepressant medication, psychotic attacks, memory problems, and progressively intense headache along the last months underwent sitting praying position and supracerebellar infratentorial paramedian approach. Under high magnification, the pineal region was accessed over the right cerebellar hemisphere. A lateral focused opening of the quadrigeminal cistern and the posterior wall of the pineal cyst were followed by partial aspiration of the cystic content. Small vessels running around the cyst were carefully dissected, and few of those attached to the wall were coagulated and cut. After careful devascularization of the lesion, the cyst was detached and pulled out using soft and continuous traction with a long ring microforceps in the right hand and thumb-controlled suction tube in the left one. The final steps included meticulous attention to any bleeding securing complete hemostasis of the surgical site. The postoperative course was uneventful and the patient improved dramatically with resolution of the headache and progressive reduction of psychiatric medication.

Conclusion: This unedited video offers all detailed aspects that a neurosurgeon as the senior author JH considers essential when performing an efficient and safe pineal cyst surgery.

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

Key Words: Pineal cyst, sitting position, supracerebellar infratentorial approach, unedited microsurgical video

Access this article online**Website:**www.surgicalneurologyint.com**DOI:**

10.4103/sni.sni_356_18

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How to cite this article: Choque-Velasquez J, Hernesniemi J. Unedited pineal cyst microneurosurgery. *Surg Neurol Int* 2018;9:261. <http://surgicalneurologyint.com/Unedited-pineal-cyst-microneurosurgery/>