

Video Abstract

Unedited microneurosurgery of a pineal region neuroepithelial cyst

Joham Choque-Velasquez, Juha Hernesniemi¹Department of Neurosurgery, Helsinki University Hospital, Helsinki, Finland, ¹International Center for Neurosurgery, Henan Provincial People's Hospital, Zhengzhou, China

E-mail: *Joham Choque - Velasquez: johchove@hotmail.com; Juha Hernesniemi - juha.hernesniemi@icloud.com

*Corresponding author

Received: 11 October 18 Accepted: 23 October 18 Published: 28 February 19

Abstract

Background: Neuroepithelial cysts are benign, well-circumscribed, nonenhancing CSF-like masses that might virtually present in any intracranial location. Common locations are the frontal lobe, thalamus, midbrain and pons, vermis, the lateral and fourth ventricles, and the choroid fissure (Choroid fissure cysts). Usually asymptomatic, cysts in the posterior fossa have been reported to cause cranial nerve palsies, focal brainstem dysfunction, and hydrocephalus. Supratentorial cysts might cause seizures or focal motor and/or sensory deficits. Histopathological examination reveals that neuroepithelial cysts are lined by ependymal (columnar epithelium) or choroid plexus cells (low cuboidal epithelium). The differential diagnosis includes enlarged perivascular spaces, infectious cyst-neurocysticercosis, porencephalic cyst, and arachnoid cyst.

Case Description: A patient with a symptomatic histologically confirmed pineal region neuroepithelial cyst underwent park bench position and a right supracerebellar infratentorial approach. The pineal region was accessed over the right cerebellar hemisphere and the lesion was identified after a lateral opening of the quadrigeminal cistern. After a careful dissection of the lesion, the cyst was pulled out with long ring microforceps and long sharp bipolar forceps; both assisted by a thumb-regulated suction tube. A complete lesion was removed in a piece and meticulous attention was paid to any bleeding securing complete hemostasis of the surgical site. The postoperative course was uneventful. The patient underwent rehabilitation without recurrence of the lesion.

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

Videolink: <http://surgicalneurologyint.com/videogallery/pineal-cyst-4>

Key Words: Neuroepithelial cyst, pineal region, sitting position, supracerebellar infratentorial approach, unedited microsurgical video

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

10.4103/sni.sni_351_18

Quick Response Code:

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: reprints@medknow.com

How to cite this article: Choque-Velasquez J, Hernesniemi J. Unedited microneurosurgery of a pineal region neuroepithelial cyst. *Surg Neurol Int* 2019;10:27. <http://surgicalneurologyint.com/Unedited-microneurosurgery-of-a-pineal-region-neuroepithelial-cyst/>