

Transcallosal, Transchoroidal Resection of a Recurrent Craniopharyngioma

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J Neurol Surg B 2018;79(suppl S3):S259–S260.

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Abstract

Objective To demonstrate the transchoroidal approach for the resection of a recurrent craniopharyngioma.

Design Video case report.

Setting Microsurgical resection.

Participant The patient was a 27-year-old woman with a history of a craniopharyngioma, resected twice during the year prior to presentation to our unit. Both operations were done via the left anterolateral corridor, and afterward, she was blind in the left eye and was treated with Desmopressin (DDAVP) for diabetes insipidus (DI). Serial magnetic resonance imaging (MRI) showed progression of the tumor residual, and she was referred for further surgical intervention.

Main Outcome Measures Pre- and postoperative MRIs measured the degree of resection.

Results For this, her third surgery, a transcallosal, transchoroidal approach, was chosen to offer the widest possible exposure. Given her history, an aggressive total resection was the best strategy. The patient was placed supine with the head neutral. A right frontal craniotomy allowed access to the interhemispheric fissure. By opening the corpus callosum, the left lateral ventricle was entered. The transchoroidal approach started with dissection of the tenia fornicis to open the choroidal fissure. After this, sufficient exposure to the posterior parts of the tumor was gained. Resection proceeded to the bottom of the tumor, exposing the basilar apex and interpeduncular cistern, and continued back anteriorly. In the end, a microscopic total resection was achieved. With a long hospital stay to treat her brittle DI, the patient slowly returned to neurological baseline.

Conclusion The transchoroidal approach is an effective way to remove large tumors in the third ventricle.

The link to the video can be found at: <https://youtu.be/2-Aqjaay8dg>.

Keywords

- ▶ craniopharyngioma
- ▶ corpus callosum
- ▶ transchoroidal approach

Conflict of Interest
None.



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received
September 27, 2017
accepted
December 13, 2017
published online
February 8, 2018

DOI <https://doi.org/10.1055/s-0038-1624585>.
ISSN 2193-6331.

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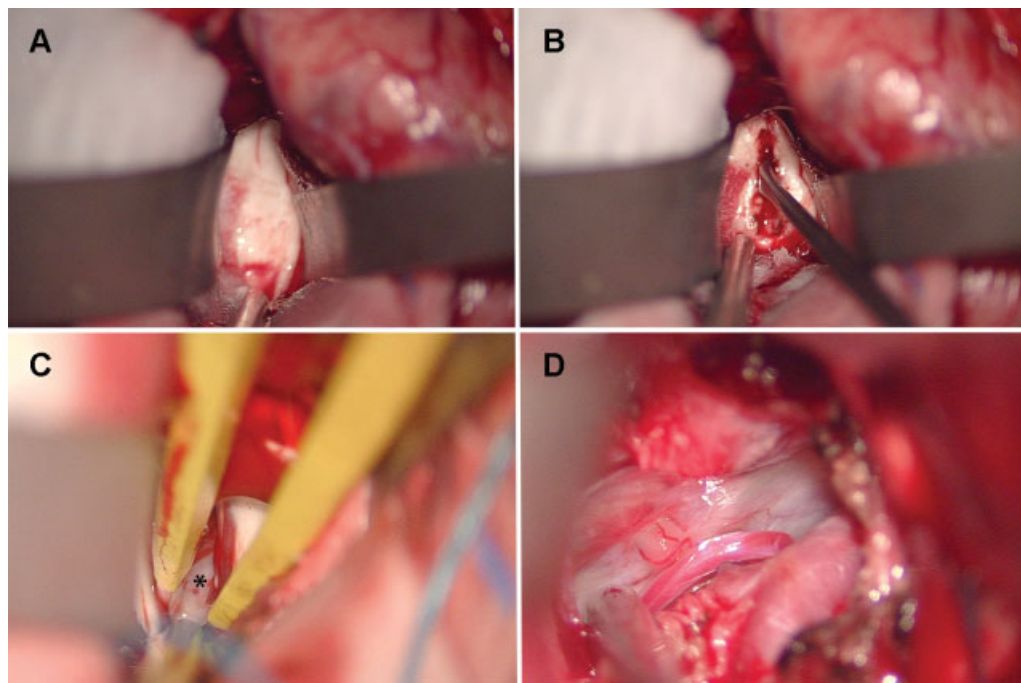


Fig. 1 Intraoperative views. (A) View of the corpus callosum (CC); (B) a 2 cm section of the CC was opened to enter the lateral ventricle; (C) the choroidal fissure was split to enter the third ventricle, * superior part of tumor seen through the choroidal fissure; (D) postresection view of the prepontine cistern showing the basilar artery on the right and the left abducens nerve at the center of the picture as it enters Dorello's canal.

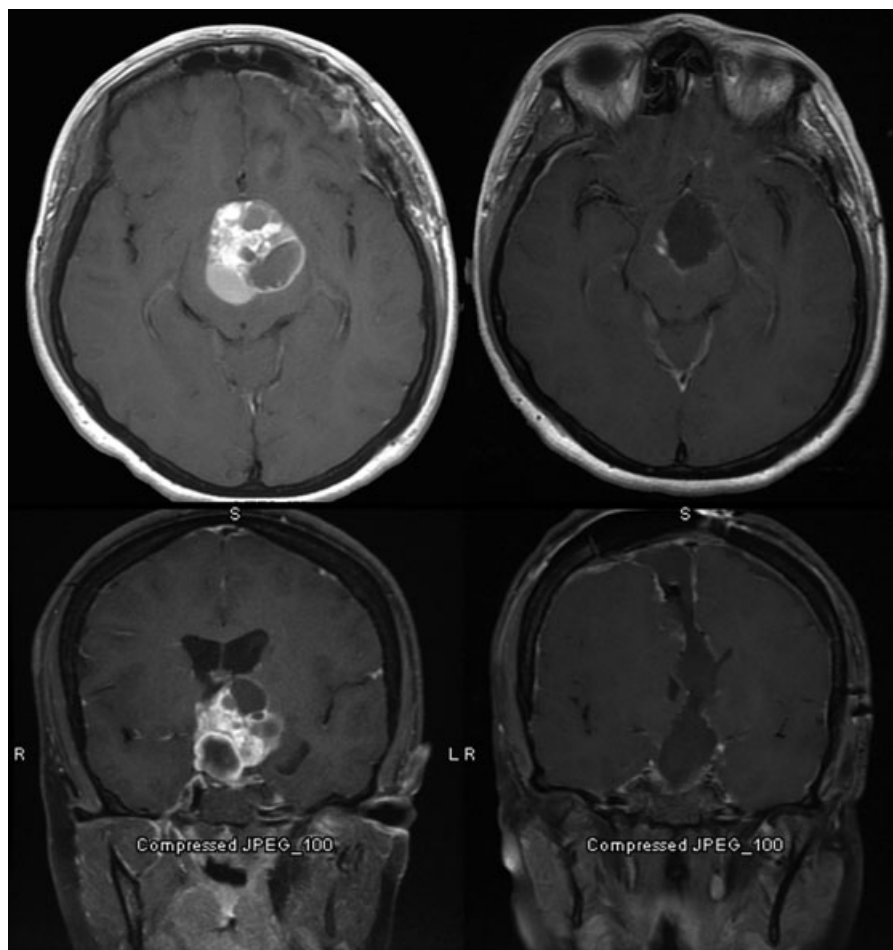


Fig. 2 Patient's magnetic resonance imaging (MRI). Preoperative (left) and postoperative (right) MRIs with axial and coronal views showing the removal of the tumor occupying the third ventricle.