

Endoscopic Endonasal Transtuberculum Sellae Approach for the Resection of Suprasellar Intrafundibular Epidermoid Cyst

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Abstract

A 49-year-old female presented with intense headaches of 3 months duration. Brain magnetic resonance imaging (MRI) was performed and showed a sellar–suprasellar lesion extending into the third ventricle. A presumptive diagnosis of a craniopharyngioma was made. Since the patient did not have any visual deficits, she opted for conservative management. Four months later, she started to have progressive deterioration of vision; thus, surgery was indicated.

The patient underwent endoscopic endonasal resection of the lesion through a transtuberculum sellae approach. The patient was positioned supine with the head slightly extended and the face turned to the right side. Following the essence of a binostril four-hand technique, a total gross resection of the lesion was achieved and multilayer skull base reconstruction was performed utilizing collagen matrix and nasoseptal flap; with no intraoperative complications.

The patient's postoperative course was uneventful with the improvement in her vision, and she was discharged on postoperative day 4 with no new neurological deficits. Histopathological examination confirmed the diagnosis of an epidermoid cyst. Postoperative pituitary gland function was within normal limits except for mild diabetes insipidus for which she is on DDAVP 0.1 mg twice daily. At 4 years follow-up, the patient was doing well, her vision was normalized, and brain MRI revealed no evidence of residual or recurrent lesion.

The link to the video can be found at: https://youtu.be/OqDFpa_Xq78.

Keywords

- endoscopic endonasal
- epidermoid cyst
- suprasellar
- transtuberculum approach

Conflict of Interest

None.



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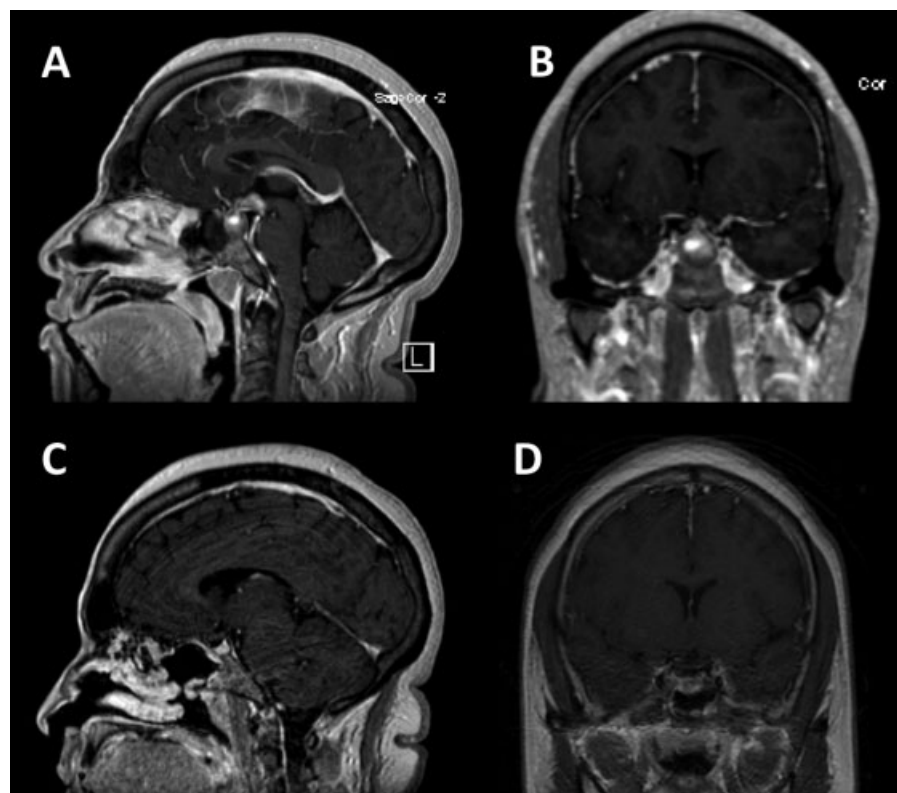


Fig. 1 Preoperative sagittal (A) and coronal (B) brain magnetic resonance imaging (MRI) with gadolinium contrast showing a sellar/suprasellar epidermoid cyst extending into the third ventricle. Postoperative sagittal (C) and coronal (D) brain MRI with gadolinium contrast demonstrating complete resection of the lesion. Note the enhancement of the nasoseptal flap used for skull base reconstruction.

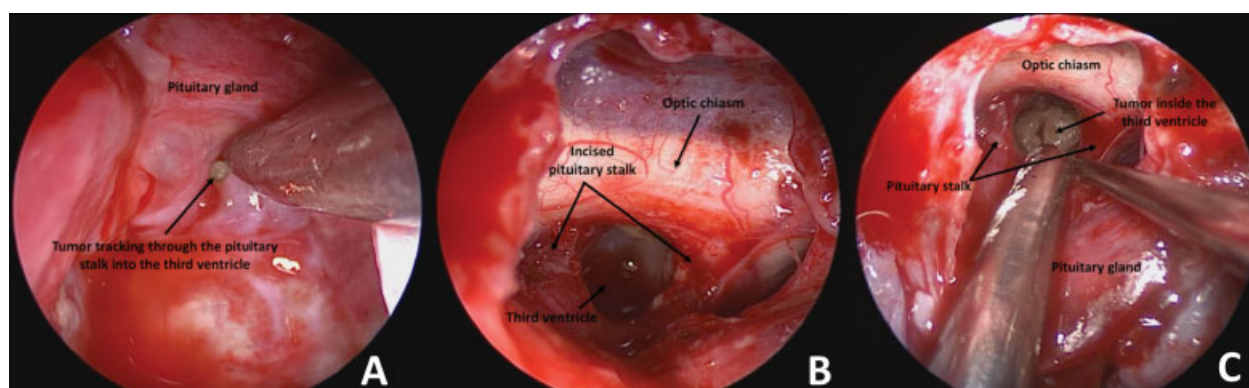


Fig. 2 Intraoperative resection of the tumor. (A) Intrasellar resection is complete and the tumor is seen tracking through the pituitary stalk into the third ventricle. (B) The tumor is progressively resected from the third ventricle through a vertical incision in the pituitary stalk. (C) Complete resection of the tumor is achieved.