Extended Endoscopic Endonasal Resection of a Suprasellar and Third Ventricular Retrochiasmatic Craniopharyngioma with a Narrow Pituitary Gland–Optic Chiasm Interval: Techniques to Optimize Resection

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Abstract

The extended endoscopic endonasal approach can be utilized to surgically treat pathology within the suprasellar space. This relies on a sufficient corridor and interval between the superior aspect of the pituitary gland and the optic chiasm. Tumors located in the retrochiasmatic space and within the third ventricle, however, may not have a widened interval through which to work. With mass effect on the superior and posterior aspect of the optic chiasm, the corridor between the chiasm and the pituitary gland might even be further narrowed. This may negate the possibility of utilizing the endoscopic endonasal approach for the management of pathology in this location. We present a case of a retrochiasmatic craniopharyngioma with a narrow resection corridor that was treated with the extended endoscopic approach and we review techniques to potentially overcome this limitation.

The link to the video can be found at: https://youtu.be/ogRZj-aBqeQ.

Keywords

- endoscopic
- endonasal
- craniopharyngioma
- third ventricle
- operative technique
- pituitary gland
- optic chiasm

Conflict of Interest
None.

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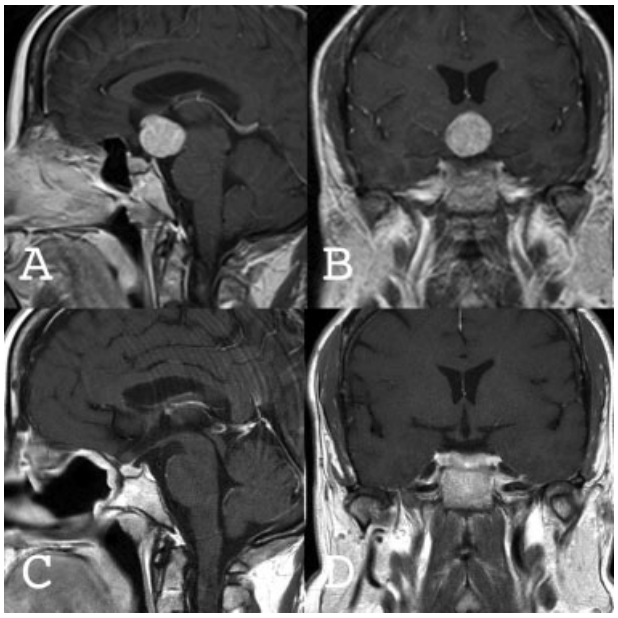

Fig. 1 Preoperative **(A)** sagittal and **(B)** coronal magnetic resonance imaging (MRI) demonstrating a retrochiasmatic craniopharyngioma. Postoperative **(C)** sagittal and **(D)** coronal MRI demonstrating gross total resection.

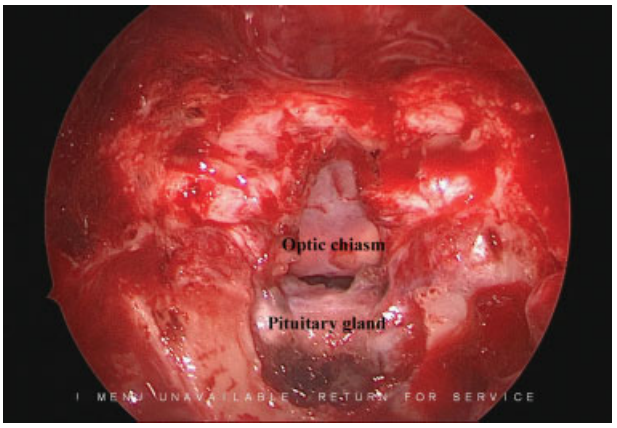

Fig. 2 Intraoperative endoscopic view of the posterior sphenoid sinus after completion of the cranial base osteotomy and dural opening, demonstrating the narrow surgical corridor between the optic chiasm and the pituitary gland.