Endoscopic Endonasal Transplanum–Transtuberculum Sellae Approach for the Resection of a Diaphragma Sellae Meningioma

Juan M. Revuelta Barbero1  Alaa S. Montaser1,2 Alexandre B. Todeschini1  Mostafa Shahein1
Bradley A. Otto1,3  Ricardo L. Carrau1,3  Daniel M. Prevedello1,3

1 Department of Neurological Surgery, Wexner Medical Center, The Ohio State University, Columbus, Ohio, United States
2 Department of Neurosurgery, Ain Shams University Faculty of Medicine, Cairo, Egypt
3 Department of Otolaryngology–Head and Neck Surgery, Wexner Medical Center at The Ohio State University, Columbus, Ohio, United States

Address for correspondence Daniel M. Prevedello, MD, Department of Neurological Surgery, Wexner Medical Center at The Ohio State University, N-1049 Doan Hall, 410 West 10th Avenue, Columbus, OH 43210, United States (e-mail: daniel.prevedello@osumc.edu).


Abstract

The endoscopic endonasal approach (EEA) provides a direct access to diaphragma sellae meningiomas. We present a case of a 56-year-old-female with an incidentally diagnosed sellar/suprasellar lesion with no hormonal deficit; thus, she opted for conservative management initially. During her annual follow-up appointment with her ophthalmologist, it was noticed that the patient had right eye peripheral deficit on formal visual field testing. Magnetic resonance imaging (MRI) revealed an enlargement of the sellar/suprasellar mass, causing displacement of the optic chiasm. A transplanum–transtuberculum EEA was performed. Gross-total removal was achieved and closure was done in a multilayer fashion using a collagen matrix, nasoseptal flap. Histopathological examination confirmed a meningioma WHO grade I. There were no intra- or postoperative complications. At 4-year-follow-up, the patient has stable vision and MRI brain showed no recurrence.

The link to the video can be found at: https://youtu.be/xY8T9hotlDs.

Keywords

► diaphragma sellae meningioma
► endoscopic endonasal approach
► expanded approaches
► transplanum
► transtuberculum

www.thieme.com/skullbasevideos
www.thieme.com/jnlsbvideos

received October 15, 2017
accepted December 12, 2017
published online February 20, 2018

ISSN 2193-6331.

© 2018 Georg Thieme Verlag KG Stuttgart · New York

License terms

THIEME
Skull Base: Operative Videos  S271
No funding was obtained for this study.

Financial Disclosure
Ricardo Carrau is a consultant for Medtronic. Daniel M. Prevedello is a consultant for Medtronic, Codman and Stryker. Daniel M. Prevedello has received honorarium from Leica Microsystems. Daniel M. Prevedello has a royalty agreement with KLS-Martin.

Conflict of Interest
None.