

Accepted Manuscript

Endoscopic Transnasal-Transclival Approach to a Pontine Cavernoma with Associated Developmental Venous Anomaly

Nicholas Erickson, MD, Alan Siu, MD, Jonathan H. Sherman, MD, Cristian Gragnaniello, MD, Ameet Singh, MD, Zachary Litvack, MD



PII: S1878-8750(18)31562-6

DOI: [10.1016/j.wneu.2018.07.084](https://doi.org/10.1016/j.wneu.2018.07.084)

Reference: WNEU 8649

To appear in: *World Neurosurgery*

Received Date: 9 April 2018

Revised Date: 8 July 2018

Accepted Date: 9 July 2018

Please cite this article as: Erickson N, Siu A, Sherman JH, Gragnaniello C, Singh A, Litvack Z, Endoscopic Transnasal-Transclival Approach to a Pontine Cavernoma with Associated Developmental Venous Anomaly, *World Neurosurgery* (2018), doi: 10.1016/j.wneu.2018.07.084.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

1 **TITLE: Endoscopic Transnasal-Transclival Approach to a Pontine**
2 **Cavernoma with Associated Developmental Venous Anomaly**

3
4 Authors: Nicholas Erickson MD^{1,2}, Alan Siu MD³, Jonathan H. Sherman MD³, Cristian
5 Gragnaniello MD³, Ameet Singh MD⁴, and Zachary Litvack MD³

6
7 Affiliations:

8 ¹School of Medicine and Health Sciences, the George Washington University,
9 Washington, DC.

10 ²Department of Neurological Surgery, The University of Alabama at Birmingham,
11 Birmingham, AL.

12 ³Department of Neurological Surgery, the George Washington University, Washington,
13 DC.

14 ⁴Department of Surgery, Division of Otolaryngology, the George Washington University,
15 Washington, DC.

16
17 Corresponding Author's name and complete mailing address:

18
19 Nicholas Erickson, MD
20 The University of Alabama at Birmingham
21 Department of Neurological Surgery
22 FOT 1057
23 510 20th St. S
24 Birmingham, AL 35294-3410

25
26 Phone: 608-219-5007
27
28

29 **Running Title:** Endoscopic, Transnasal-Transclival Resection of Pontine Cavernoma

30
31 **Keywords:** Endoscopic, Transnasal, Transclival, Cavernous Malformation, Pontine
32 cavernoma, Brainstem cavernous malformation
33
34
35
36
37
38
39

Download English Version:

<https://daneshyari.com/en/article/8691221>

Download Persian Version:

<https://daneshyari.com/article/8691221>

[Daneshyari.com](https://daneshyari.com)