## Paramedian Supracerebellar Infratentorial Approach for Pontine Cavernoma: 2-Dimensional Operative Video



Nickalus R. Khan, MD <sup>(D)</sup>, Jacques J. Morcos, MD, FRCS(Eng), FRCS(Ed)

Department of Neurological Surgery, University of Miami, Miami, Florida, USA

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Correspondence: Jacques J. Morcos, MD, FRCS(Eng), FRCS(Ed), Department of Neurological Surgery, University of Miami, 1095 NW 14th Ter, Miami, FL 33136, USA. Email: jmorcos@med.miami.edu

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We describe the case of a 26-yr-old male who presented with headaches, dizziness, and left hemi-hypoesthesia in addition to being COVID-19 positive. The patient was found to have a large hemorrhage in the right dorsolateral pons that was found to be due to a pontine cavernous malformation. The patient underwent a right-sided paramedian supracerebellar infratentorial approach for resection of this lesion with preservation of the developmental venous anomaly. We present the operative video with a specific focus on approach selection, anatomic illustrations, and technical nuances. The literature on the timing of brainstem cavernoma surgery is reviewed.<sup>1-4</sup> The patient's postoperative clinical course and postoperative imaging are reviewed. The patient gave informed consent for the procedure and verbal consent for being part of this submission and the publication of their image.

KEY WORDS: Cavernoma, Brainstem, Pons, Hemorrhage, Supracerebellar infratentorial

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## REFERENCES

- Rajagopal N, Kawase T, Mohammad AA, Seng LB, Yamada Y, Kato Y. Timing of surgery and surgical strategies in symptomatic brainstem cavernomas: review of the literature. *Asian J Neurosurg.* 2019;14(1):15-27.
- Zaidi HA, Mooney MA, Levitt MR, Dru AB, Abla AA, Spetzler RF. Impact of timing of intervention among 397 consecutively treated brainstem cavernous malformations. *Neurosurgery*. 2017;81(4):620-626.
- Garcia RM, Ivan ME, Lawton MT. Brainstem cavernous malformations: surgical results in 104 patients and a proposed grading system to predict neurological outcomes. *Neurosurgery*. 2015;76(3):265-278; discussion 277-268.
- Pandey P, Westbroek EM, Gooderham PA, Steinberg GK. Cavernous malformation of brainstem, thalamus, and basal ganglia: a series of 176 patients. *Neurosurgery*. 2013;72(4):573-589; discussion 588-579.