

Case reports

With recent advancements, the endoscopic endonasal approach (EEA) can provide direct visualization of ventral brainstem. No case has been reported of EEA to remove a brainstem metastasis.

CLINICAL PRESENTATION: We present an illustrative case of a 68-yr-old female with metastatic colon cancer who presented with 2.8 × 2.7 × 2.1 cm (7.9 cm³) heterogeneously enhancing, right ventral pontine lesion with extensive edema. She underwent endoscopic endonasal transclival approach, and gross total resection of the lesion was achieved.

The endoscopic approach may offer certain advantages for removal of ventral brainstem lesions, as it can provide direct visualization of important neurovascular structures, especially, if the lesion displaces the tracts and comes superficial to the pial surface ¹⁾.

2015

A study describes the first case of histopathologically-confirmed brainstem metastasis originating from lung adenosquamous carcinoma, and discusses the outcomes of treatment by stereotactic aspiration combined with gamma knife radiosurgery (GKRS). A 59-year-old female presented with a cystic mass (15×12×13 mm; volume, 1.3 cm³) located in the pons, two years following surgical treatment for adenosquamous carcinoma of the lung. The patient received initial GKRS for the lesion in the pons with a total dose of 54.0 Gy, however, the volume of the mass subsequently increased to 3.9 cm³ over a period of three months. Computed tomography-guided stereotactic biopsy and aspiration of the intratumoral cyst were performed, yielding 2.0 cm³ of yellow-white fluid. Histology confirmed the diagnosis of adenosquamous carcinoma. Aspiration provided immediate symptomatic relief, and was followed one week later by repeat GKRS with a dose of 12.0 Gy. The patient survived for 12 months following the repeat GKRS; however, later succumbed to the disease after lapsing into a two-week coma. The findings of this case suggest that stereotactic aspiration of cysts may improve the effects of GKRS for the treatment of cystic [brainstem metastasis](#); the decrease in tumor volume allowed a higher radiation dose to be administered with a lower risk of radiation-induced side effects. Therefore, stereotactic aspiration combined with GKRS may be an effective treatment for brainstem metastasis originating from adenosquamous carcinoma ²⁾.

¹⁾

Gerges MM, Godil SS, Kacker A, Schwartz TH. Endoscopic Endonasal Transclival Resection of a Pontine Metastasis: Case Report and Operative Video. Oper Neurosurg (Hagerstown). 2019 Dec 13. pii: opz380. doi: 10.1093/ons/opz380. [Epub ahead of print] PubMed PMID: 31832658.

²⁾

DU C, Li Z, Wang Z, Wang L, Tian YU. Stereotactic aspiration combined with gamma knife radiosurgery for the treatment of cystic brainstem metastasis originating from lung adenosquamous carcinoma: A case report. Oncol Lett. 2015 Apr;9(4):1607-1613. Epub 2015 Feb 16. PubMed PMID: 25789009; PubMed Central PMCID: PMC4356421.

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