



## Research paper

# A five-year experience in endoscopic endonasal excision of juvenile nasopharyngeal angiofibroma

Siew Chung Cheah<sup>1,2</sup> , Li Yun Lim<sup>2,3</sup> , Salina Husain<sup>1</sup> , Ing Ping Tang<sup>2,3</sup> 

<sup>1</sup> Department of Otorhinolaryngology-Head and Neck Surgery, Faculty of Medicine, Universiti Kebangsaan Malaysia Medical Centre, Kuala Lumpur, Malaysia

<sup>2</sup> Department of Otorhinolaryngology-Head and Neck Surgery, Sarawak General Hospital, Sarawak, Malaysia

<sup>3</sup> Department of Otorhinolaryngology-Head and Neck Surgery, Faculty of Medicine and Health Sciences, Universiti Malaysia Sarawak, Sarawak, Malaysia

## ARTICLE INFO

### Article history

Received 30 January 2021

Accepted 11 March 2021

Available online 24 August 2021

### Keywords

Juvenile nasopharyngeal angiofibroma

Endoscopic approach

Endoscopic endonasal

### Doi

<https://doi.org/10.29089/2020.20.00175>

### User license

This work is licensed under a Creative Commons Attribution – NonCommercial – NoDerivatives 4.0 International License.



## ABSTRACT

**Introduction:** Juvenile nasopharyngeal angiofibroma (JNA) is a histological benign but locally aggressive vascular tumour which can invade the base of skull.

**Aim:** This is a retrospective study with the aim to examine the outcome of patients with JNA and endoscopic endonasal excision of tumour at a tertiary center in Malaysia.

**Material and methods:** 9 patients were identified from the medical record office from 2015 to 2019. We review the data on patient demographics, clinical presentations, laboratory investigations, intraoperative blood loss and duration of hospital stay.

**Results and discussion:** 8 patients were male, 1 was female. The average age of diagnosis was 15 (range 11 to 29) years. The commonest chief complaint was recurrent epistaxis, followed by nasal obstruction and nasal discharge. Three patients were at stage I, 4 patients at stage II, 1 patient at stage III and 1 patient at stage IV based on Fisch classification. All patients underwent primary endoscopic endonasal excision of tumour with no vascular, ophthalmological or neurological complication. Seven patients had preoperative embolization done. Average operation time was 137 minutes (range 60–360 minutes). Intraoperative blood lost varied from 500 mL to 1300 mL (mean 777.7 mL). All patients were discharged well with no recurrence.

**Conclusions:** The management of JNA can be challenging. The current shift in management favouring endoscopic endonasal excision of JNA reduces postoperative morbidity. It is possible to be applied on all stages of tumour with good success rate.