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Case report

Endoscopic excision of juvenile nasopharyngeal angiofibroma: A case series

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ABSTRACT

Objectives: To present the outcome of excision of juvenile nasopharyngeal angiofibroma (JNA)-through endoscopic approach.**Method:** Retrospective case series review of six cases of JNA patients, encountered between 2013 and 2015. All patients underwent endoscopic excision, preceded by embolisation.**Results:** All patients were male, comprised of Chinese, Malay and Bidayuh ethnics, presenting with typical complaints of progressive unilateral nasal blockage, spontaneous painless epistaxis hyposmia and sleep disturbance. The patients' presentation comprised of all four stages based on Fisch classification, with one recurrence case. Maxillary artery was the main blood supply to the lesion. Surgical approach applied was endoscopic four-handed technique of excision. All patients were discharged well with no major complications, nor cases of recurrence.**Conclusion:** Endoscopic approach is possible for varies stages of JNA. Preoperative angiographic embolisation has minimised the blood loss intraoperatively. The endoscopic method has reduced the post-operative morbidity.© 2016 Egyptian Society of Ear, Nose, Throat and Allied Sciences. Production and hosting by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

1. Introduction

Juvenile nasopharyngeal angiofibroma (JNA) is a histologically benign but clinically invasive tumour. It potentiates to bleed due to its high vascularity. This tumour accounts for 0.05% of all head and neck tumours, mainly targeted to male adolescence.¹

The tumour often arises from posterolateral aspect of the roof of nasal cavity in the region of sphenopalatine foramen. Local invasion of this tumour includes involving the nasopharynx, paranasal sinuses, pterygopalatine fossa and the infratemporal fossa. Larger tumour can also involve the orbit and cavernous sinus.²

The most common JNA presentation is recurrent epistaxis with progressive nasal blockage. Invasive tumours may cause facial deformities, diplopia, proptosis, headache and blindness. Computer

tomographic (CT) imaging is important for diagnostic, often with angiogram,³ and embolisation of feeding vessels.

Several staging classification has been proposed, however Fisch classification (Table 1) has been widely used for its practicality. Surgical resection remains the mainstay of treatment. Extensive uncontrollable blood loss is the challenge faced by surgeons. Thus, pre-operative angiographic embolisation is preferred.

2. Method

This is a retrospective review of six patients with JNA cases presented to our centre from 2013 till 2015. The demographic data, clinical presentations, clinical findings, imaging investigations and treatment modalities of these patients were collected and reviewed based on medical records. Fisch classification was used to classify all tumours based on the patients' CT scan reports.

The modality of treatment for all six patients was transnasal endoscopic approach. A small lateral rhinotomy, was combined at the end of endoscopic procedure, in one stage IV case, to assist the removal of tumour en bloc. Five of these cases were primary resections except one, was a case of recurrence.

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