CASE REPORT

Endonasal Endoscopic Resection of Intranasal Haemangioma

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Summary

Intranasal haemangioma is quite rare. This tumor may be confused with other intranasal vascular tumor such as juvenile nasopharyngeal angiofibroma (JNA), glomus tumors as well as other tumor such as angiosarcoma and leiomyoma. Juvenile nasopharyngeal angiofibroma is the most common vascular tumor encountered in nasal cavity. A definitive histology diagnosis pre-operatively is difficult to be obtained as the biopsy may lead into severe uncontrolled bleeding. The final diagnosis very much depends on histology after the tumor excision. Complete surgical resection of the tumor is the standard approach. In this report we describe our surgical management in approaching intranasal haemangioma endoscopically and this pathology can be considered as one of differential diagnosis for unilateral nasal mass.

Key Words: Unilateral nasal mass, Epistaxis, Endoscopic sinus surgery

Case Report

A 15-year-old male student was referred to the ENT clinic in Tengku Ampuan Afzan Hospital with a primary symptom of recurrent attack of epistaxis for at least two months prior to the referral. The bleeding had increased in frequency within two weeks before ENT evaluation. The bleeding was managed to be controlled conservatively by the patient himself by placement of ice-packed over the forehead and nose pinching for about few minutes.

On initial evaluation, the vital signs were stable and there was no evidence of anemia. The head and neck examination was normal. Endoscopic examination revealed a polypoidal fleshy mass arising from the left lateral nasal wall in the region of the middle meatus. The CT scan (Figure 1) of the paranasal sinuses showed an expansile soft tissue mass with enhancement following intravenous contrast in left nasal cavity. The mass pushed the nasal septum to the right and extended into left maxillary sinus. Based on these clinical findings, a provisional diagnosis of juvenile nasopharyngeal angiofibroma was made. On magnetic resonance angiography (MRA) there was no feeding vessels noted to supply the tumor directly.

After the initial diagnosis and the radiological assessment, the patient underwent tumor excision via endonasal endoscopic approach. Intra-operatively with good visualization and minimal bleeding, the operative time was less than one hour. The tumor arose from the junction between left middle turbinate and lateral nasal wall. The surgical instrumentation involved microdebrider initially followed by forceps removal of remnant tumor attached to the lateral nasal wall. The following day the nasal packing was removed and the patient was discharged on day two post-operatively. Histological examination revealed haemorrhagic polypoidal tissue with the presence of anastomosing blood vessels of variable sizes, lined by flattened

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endothelial cells with evidence of thrombosed vessels. There was no evidence of tumor recurrence on follow-up endoscopic examination at ten months.

Discussion

Vascular tumors arising in the nasal cavity can easily be mistaken for juvenile nasopharyngeal angiofibroma. The symptoms of vascular tumors of the nasal cavity includes nasal obstruction, epistaxis, or unilateral rhinorrhea and they do not compose guidelines for the differential diagnosis. The occurrence of haemangioma in the intranasal region has been reported in the English literature and majority of the cases were removed via conventional open surgical approach. The surgical approaches described are via midfacial degloving[1], transpalatal[2] and lateral rhinotomy approach[3]. Webb[4], described a case of haemangioma affecting the posterior end of the inferior turbinates of the nose that was successfully treated by angiographically controlled embolization but in their case the tumor was relatively small. The surgical management of intranasal haemangioma can be problematic because it has the tendency to bleed intra-operatively.

The application of endonasal endoscopic surgery is constantly evolving. One of the advantages of this technique is that it does not involving any facial skin incision and is better tolerated by the patient. This surgical approach involves a shorter hospitalization. This technique was once considered to have limitation on the vascular tumor because endoscopic removal of such tumor could be difficult due to uncontrolled bleeding which could hamper visualization and margin assessment. With adequate preoperative planning including the radiological assessment to delineate the feeding vessel and proper intra-operative control of bleeding, haemangioma can be removed successfully with endonasal endoscopic techniques.

In our case the MRA did not show any significant feeding vessel supplying the tumor. The patient was consulted pre-operatively for the open surgical method in view of the risk of uncontrolled bleeding intra-operatively. The points in favour of endoscopic approach in this case was the CT scan evidence of tumor bulk mainly confined to the nasal cavity and intra-operative endoscopic assessment of the lesion revealed that the tumor pedicle was attached to the lateral nasal wall which was accessible with the endoscopic approach.

In conclusion, endoscopic surgery for intranasal haemangioma is a safe surgical approach. A pre-operative radiological assessment is essential to define the tumor extension and to determine the tumor feeding vessels with proper intra-operative endoscopic assessment to determine the accessibility of complete surgical resection.

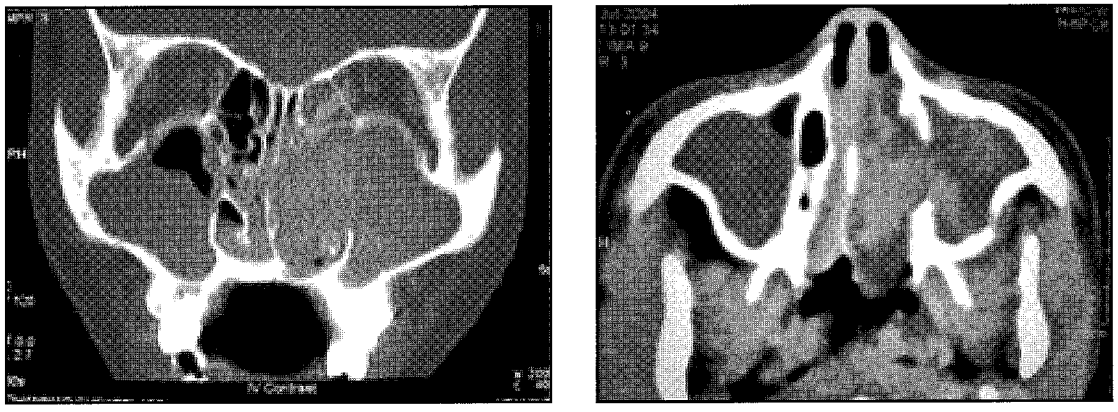

Fig 1: CT scans of the paranasal sinuses (coronal and axial view) showing the tumor within the left nasal cavity.

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