

CASE REPORT

CAPILLARY HEMANGIOMA OF THE PARANASAL SINUSES

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ABSTRACT: OBJECTIVE: To report a case of ethmoid sinus capillary hemangioma and to discuss its management and treatment options with special mention on the clinical presentation, radiographic features and surgical options. **METHOD:** case report and review of literature. **CONCLUSION:** This case of a capillary hemangioma occurring in the ethmoid sinus is a rare entity as capillary hemangiomas are usually seen arising from the septum. Transnasal endoscopic excision of the mass was done without embolization.

KEYWORDS: Hemangioma, Capillary hemangioma, Paranasal sinus.

INTRODUCTION: Hemangiomas of the nasal cavity are very rare. They are of capillary, cavernous and mixed type. Capillary hemangioma is more common and arises usually from the nasal septum and rarely from the lateral nasal wall. We hereby present a case of a capillary hemangioma arising from the ethmoid sinuses with a review of literature.

CASE REPORT: A 32 year old female patient presented to emergency department of St John's medical college hospital a tertiary referral centre in Bangalore, South India with a history of epistaxis of one month duration. Patient had been evaluated at an outside hospital and was found to have a nasal mass, on attempting to do a biopsy she had profuse bleeding and was referred to our centre with anterior nasal packs for further management. On anterior rhinoscopy a bluish red mass was seen in the right nasal cavity.

A contrast enhanced computed tomography scan of nose and paranasal sinuses done in our hospital showed a heterogeneously enhancing soft tissue lesion in the right osteomeatal region with widening of the ostia and thinning of the medial wall of right maxillary sinus. A differential diagnosis of inverted papilloma was given by the radiologist.

Endoscopic excision of the mass was planned. Intraoperatively a reddish blue mass was seen in the middle meatus involving the anterior ethmoids and filling the nasal cavity and going down into the choana. A medial maxillectomy was done and the lesion was completely excised and sent for histopathological examination. The maxillary sinus appeared normal. There was no excessive bleeding during the surgery. Anterior nasal packs were kept for two days, after pack removal on the second postoperative day no further episodes of bleeding was seen. On histopathological examination the lesion was suggestive of a capillary hemangioma. Patient was followed up for 2 months postoperatively no signs of recurrence has been seen.

DISCUSSION: Hemangiomas are vascular neoplasms that are morphologically classified into capillary, cavernous, arteriovenous and epithelioid type. Hemangiomas commonly affects the skin, oral cavity and tongue and rare in the nasal cavity, in the nasal cavity the nasal septum is

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most commonly affected, nasal vestibule and middle turbinates are less common. Hemangiomas are a rare entity in the nasal cavity and if at all seen is usually of capillary type which is usually attached to the septum⁽¹⁾ this preferential site of origin is because of the normal histological architecture of that area like capillary vessels are seen on the septum and cavernous vessels are seen in the turbinates and sinuses. Cases of capillary hemangiomas arising from the inferior and middle turbinate and the maxillary sinus have been reported.⁽²⁾ Iwata, Hattori K et al in their study done in Japan reported that capillary hemangiomas usually arise from the septum and cavernous hemangiomas arise from the lateral nasal wall.⁽³⁾

The actual cause is not known factors such as microtrauma from nasal packing, prolonged intubation, and hormonal factors which include pregnancy have been implicated in the etiology.⁽⁴⁾ Patients commonly present with symptoms of nasal obstruction and epistaxis and occasionally with headache and purulent discharge. They can also present with proptosis and diplopia.

The best imaging modality of a capillary hemangioma is a contrast enhanced CT of paranasal sinuses where the scan reveals a soft-tissue enhancing mass with or without associated bony destruction. CT is a good imaging modality to rule out any destruction of the bony structures or invasion to adjacent paranasal sinuses or intracranial extension. Most common differential diagnosis for a capillary hemangioma on CT would be a nasal angiofibroma or an inverted papilloma, juvenile nasopharyngeal angiofibroma should be suspected if the patient is a young adolescent male. Other differential diagnosis being angiomatous polyp and some uncommon malignant lesions such as nasopharyngeal carcinoma or nasopharyngeal teratoma.^(5,6,7)

Hemangiomas can be confirmed only on histopathological examination which can only be done after complete excision of the mass as attempts to do a biopsy for pre-operative confirmation can lead to excessive bleeding. There is a report of two deaths following bleeding secondary to biopsy in cases of sphenoid sinus hemangioma.⁽⁸⁾

On histopathology hemangiomas are divided into capillary, cavernous and mixed depending on their vessel size on microscopy. The histologic features change as the lesion evolves. In early lesions the lobules are highly cellular and composed of mitotically active, plump endothelial cells which form tiny rounded, often uncanalized vascular spaces. As lesions mature the vessels become canalized and more easily recognized, often showing congested lumina and flat endothelial cells. A small feeding vessel is often found in the vicinity of the tumor.

There are various treatment options for nasal hemangiomas of which surgical resection of the tumour including a cuff of normal tissue after ligation and cautery of the feeding vessels is the most successful.⁽³⁾ Other treatment options include cryotherapy, corticosteroids, sclerosing agents and laser. Another alternative management before surgery is embolization of the feeder vessels of the hemangioma.⁽⁹⁾

There are various surgical approaches for the resection of a hemangioma, the choice of surgery being dependant on the exact location of the tumour. Midfacial degloving, lateral rhinotomy, transpalatal, transantral and lefort 1 osteotomy procedure are the surgical approaches of which the transnasal endoscopic approach is the surgery of choice in case of hemangiomas of nose and paranasal sinuses.⁽¹⁰⁾

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CONCLUSION: Capillary hemangiomas in the nasal cavity usually arises from the nasal septum, a capillary hemangioma arising from the ethmoid sinuses is a rare entity. Our patient presented with unilateral nasal obstruction and epistaxis. A high index of suspicion of hemangiomas should be considered for any patient with a nasal mass with history of profuse bleeding. Transnasal endoscopic excision of the mass was performed for our patient without embolization, successful resection of the mass was done without any perioperative or postoperative complications.

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Fig. 1: contrast enhanced CT scan showing heterogeneously enhancing soft tissue lesion in the right osteomeatal region with widening of the ostia and thinning of the medial wall of right maxillary sinus.



Fig. 1

Fig. 2: Intraoperative picture of the lesion seen as a bluish mass arising from the middle meatus.



Fig. 2

Fig. 3: Histopathology slide showing Polypoidal fragments of vascular neoplasm with surface ulcerations, composed of lobules of proliferating plump endothelial cells with slit like vascular spaces.

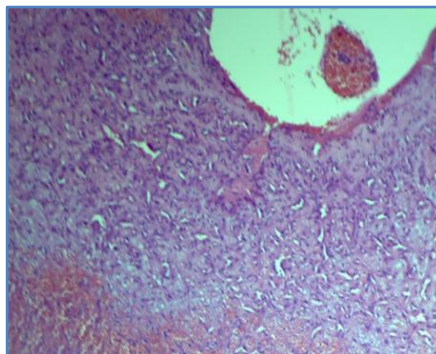


Fig. 3

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