

Case Report

A rare occurrence of lobular nasal hemangioma in an adolescent female

Rajeshwari Handigund^{1*}, Anil Harugop², Swati Handigund³

¹Department of Pathology KAHER'S Jawaharlal Nehru Medical College and KLES Dr Prabhakar Kore Hospital and Medical Research Centre, Belagavi, Karnataka, India

²Department of Otolaryngology, KAHER'S Jawaharlal Nehru Medical College and KLES Dr Prabhakar Kore Hospital and Medical Research Centre, Belagavi, Karnataka, India

³BLDE Shri B.M. Patil Medical College, Vijapur, Karnataka, India

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*Correspondence:

Dr. Rajeshwari Handigund,

E-mail: docrajeshwari@gmail.com

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ABSTRACT

Nasal hemangiomas are uncommon benign vascular tumors rarely seen arising from the nasal cavity. Here, we present a case of a 19-year-old female with lobular capillary hemangioma on right side of the nasal septum; an infrequent presentation both in terms of age and anatomical site. This case report highlights a rare septal origin with discussion on clinical course, diagnostics and management.

Keywords: Nasal septum, Lobular capillary haemangioma, Epistaxis

INTRODUCTION

Vascular lesions in the head and neck region originate from blood vessels or lymphatics, commonly involving the lips, oral mucosa, or facial skin.¹ Hemangiomas are benign tumors rarely seen in the nasal cavity especially the nasal septum and paranasal sinuses. Histologically, there are three types of hemangiomas including capillary, cavernous and mixed types.¹ Nasal hemangioma (NH) was first described by Poncet and Dor in 1897 as human botryomycosis. They were also known as “pyogenic granuloma”. The term “pyogenic granuloma” is a misnomer due to its lack of infectious origin according to histological and microbiological studies. Mulliken and Glowacki in 1982 according to the clinical, and histochemical findings, cell types described the first classification.²

CASE REPORT

A 19-year-old presented with nasal block associated with on and off blood-tinged nasal discharge. There was no history of trauma, allergy any bleeding disorder or

systemic illness. On anterior rhinoscopy, a 1x1.5 cm polypoidal pinkish mass was noted on the right nasal septum. It had smooth outer surface, painless and mild bleeding on touch.

Pre-operative investigations namely Complete blood count, viral serological markers, coagulation tests; prothrombin time and activated partial thromboplastin time were unremarkable. Contrast CT of paranasal sinuses revealed a well-defined soft tissue lesion confined to the anterior right nasal septum, without bony erosion or sinus involvement. Clinically a differential diagnosis of capillary hemangioma, pyogenic granuloma, inverted papilloma and lobular capillary hemangioma was made.

Management

The lesion was excised endoscopically under general anaesthesia with bipolar cautery to control intra operative bleeding. No significant hemorrhage was encountered and post operative recovery was uneventful.

Histopathology

Microscopic examination confirmed a benign lesion, comprised of nests of proliferating capillaries lined by flattened epithelium, filled with red blood cells. These capillaries were surrounded by mild fibrous stroma. Acute and chronic inflammatory cells were seen. Histological diagnosed as lobular capillary haemangioma. No evidence of atypia or malignancy.

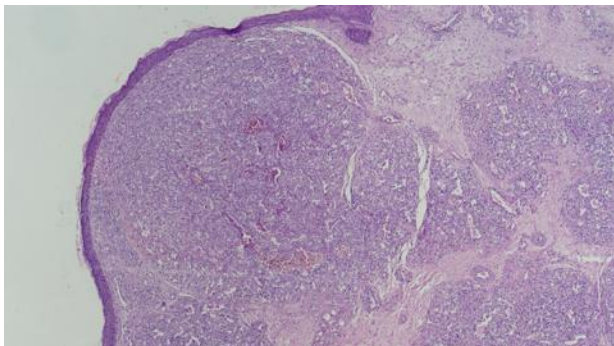


Figure 1: Haematoxylin and eosin (40x) stained section lobular arrangement of capillaries covered by pseudostratified squamous epithelium.

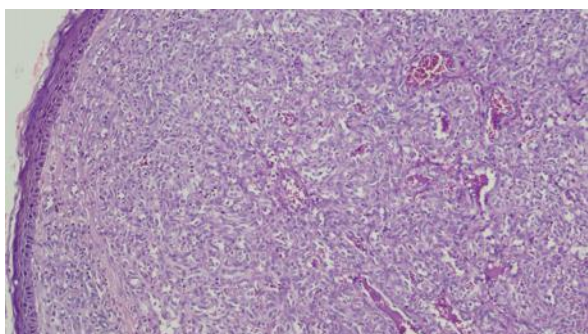


Figure 2: Haematoxylin and eosin (100x) stained section showing flattened epithelium of capillaries filled with RBC.

DISCUSSION

Hemangioma is the most common tumor of childhood and infancy, common site being the head and neck region, but rare in the nasal cavity.³ The most common site is anterior septum, other nasal sites such as middle turbinates, inferior turbinates, posterior part of the septum and vestibule are also reported in literature. Hepatic hemangiomas are common in infants.⁴

Pathogenesis is unknown, but Ran Tang et al describes as a multifactorial condition, resulting in endothelial proliferation, with uncontrolled angiogenesis and abnormal function of downstream pathways (notably HIF1 α , VEGF and PI3K / Akt) capillary hemangiomas are benign, painless, polypoidal cellular lesions composed of tightly packed blood vessels.⁵ They are further classified into, infantile hemangioendotheliomas

(also known as strawberry hemangiomas), lobular capillary hemangiomas, retinal capillary hemangiomas, cherry angiomas and verrucous angiomas. Lobular capillary hemangioma has a distinct lobular appearance where each lobule is organized around a larger vessel. It occurs subjacent to skin and mucous membranes, often showing superficial ulceration. It is also considered as a differential when dealing with a suspected case of nasal angiofibroma due to the radiologic and microscopic similarity.⁶

Capillary hemangioma is common and mostly located as on the lateral nasal wall and the commonest symptom is epistaxis, followed by nasal congestion. Rarely noted symptoms are nasal obstruction, runny nose, and epiphora. In addition, extra nasal symptoms, such as facial pain and headache, are much less common. The diagnosis of cavernous hemangioma can be made based on the patient's history and clinical features of the lesion. Other differential lesions, could be subcutaneous cavernous hemangioma, nasal gliomas, meningocele or meningoencephaloceles, teratomas, sebaceous cysts, dermoid cysts and fibromas, which have atypical clinical features in the nasal dorsum.

Shi Nee Tan et al retrospectively reviewed five cases of nasal hemangioma presenting at University Kebangsaan Malaysia Medical Center (UKMMC) in a period of 92 months, indicating the rare benign tumour in Asians, with female preponderance. As described in literature these cases had epistaxis as the most common presenting symptom followed by nasal obstruction. Since epistaxis is the common symptom nasal hemangioma, are frequently being mistakenly diagnosed for bleeding polyposis or an angiofibromatous polyp.⁷

Imaging tests such as ultrasonography (USG), computed tomography (CT), or magnetic resonance imaging (MRI) are needed to confirm vascular pathology and to demonstrate venous, arterial, or lymphatic components and to assess involvement of deeper structures. On CT well-circumscribed, soft-tissue mass usually intense diffuse homogenous enhancement with hypoattenuating rim. Hypointense on T1-weighted images on MRI and hyperintense on T2 indicate the absence of coagulated blood.¹⁻⁸

Surgical excision remains as the treatment of choice and carries an excellent prognosis when complete removal is achieved. Other methods may be used, for example, electrocoagulation, cryotherapy, laser therapy and (rarely) excisional surgery after endovascular embolization.¹

CONCLUSION

More than half of the hemangioma affects the head and neck region, rarely the nasopharynx. This rare case contributes to the limited pool of literature on nasal septal hemangioma and emphasizes early diagnosis and

minimally invasive surgical management to prevent complications and recurrence.

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