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Case Report

Lobular Capillary Hemangioma of Nasal Septum - A rare presentation

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Abstract

Lobular Capillary Hemangioma (LCH) is a benign, rapidly growing, vascular lesion of the skin and mucous membranes. It usually involves lips, gingiva, tongue and buccal mucosa. Involvement of nasal cavity is a rare presentation. In the nasal cavity, anterior part of nasal septum is the most frequently affected site. It commonly occurs in the third decade, and in females. The etiology until now remains obscure. The usual presenting symptoms are nasal obstruction and epistaxis. Endoscopic surgical excision is the preferred treatment of choice. In the present case, we describe a 14-year old male with left sided nasal obstruction due to a growing mass in the left nasal cavity. This case is reported for its rarity, and typical clinical and microscopic findings.

Keywords: lobular capillary hemangioma, nasal cavity, nasal obstruction, epistaxis

1.Introduction

Capillary hemangioma is a benign neoplasm of vascular origin with endothelial proliferation. LCH is a polypoidal form of capillary hemangioma, which occurs on mucosal surfaces, such as oral and nasal cavity, tongue, conjunctiva, duodenum or colon. In the nasal cavity, it commonly locates on the anterior portion of nasal septum (Little's area), followed by lateral wall, vestibule and middle turbinates.[1][2]

LCH occurs at all ages, more often in the third decade, and is commoner in females. In the pediatric age group, it commonly affects males. The lesion is solitary, hypervascularised, reddish, pedunculated or wide based, ranging from several millimeters to centimeters in size.[3] The most common symptoms are unilateral nasal blockage due to proliferating lesion and secondly epistaxis, which is related to the rich vascularity of the lesion.[4] By radiographic evaluation with the help of computed

tomography (CT) scan, the size of the tumor and the degree of its invasion into adjacent structures can be assessed which later helps in better surgical planning.

2. Case report

A 14-year old male patient presented to ENT outpatient department with left sided nasal blockage of 1 month duration and history of two episodes of epistaxis. There was no history of trauma, nasal packing, allergy, prior surgery or any other nasal symptoms. No external nasal deformity seen. On anterior rhinoscopy, a reddish mass is seen in the left nasal cavity arising from the nasal septum (Figure 1). No active bleeding seen. Posterior rhinoscopy was normal. On endoscopic examination, it was confirmed to be a mass arising from anterior part of nasal septum. Other ENT examinations were unremarkable without any abnormality.

CT scan revealed a well defined, expansile soft tissue lesion in the anterior aspect of left nasal cavity (Figure 2) abutting cartilaginous portion of nasal septum – benign lesion, suggestive of hemangioma. Surgery was planned and endoscopic excision of the mass was done under general anesthesia and the specimen was sent for histopathological examination (HPE). The post-operative period was uneventful. Follow-up for a period of 6 months was done without any recurrence.

Fig. 1: Reddish mass seen in the left nasal cavity on anterior rhinoscopy examination

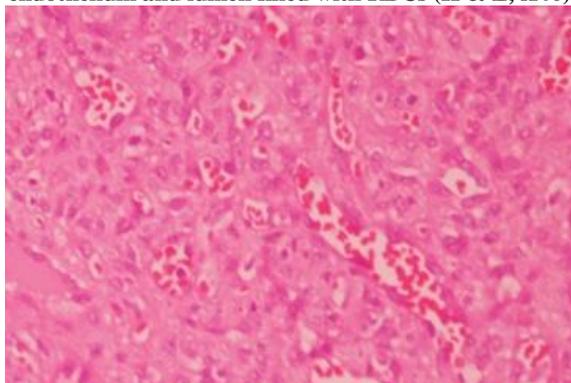


Figure 2: CT scan (coronal section) shows soft tissue mass in left nasal cavity



On microscopic examination, multiple lobules of small blood vessels are seen which are lined by endothelial cells and thick muscular blood vessels are seen in the central stroma - diagnosed as lobular capillary hemangioma (Figure 3).

Fig. 3: Photomicrograph of capillary hemangioma showing thin-walled capillaries with flattened endothelium and lumen filled with RBCs (H & E, X40)



3. Discussion

Lobular capillary hemangioma (LCH) is a benign, vascular neoplasm which was earlier known as pyogenic granuloma, but turned to be a misnomer because both histological and microbiological features indicate lack of infectious origin.[2]

Though the etiology is unknown, it is usually found to be associated with microtrauma which occurs from digital pricking and nasal packing. Post-traumatic proliferation of local blood vessels and increase of regional hydrostatic pressure caused by repeated local stimulation finally, influence the occurrence of hemangioma.[5] It is generally an isolated finding, but not a part of systemic disorder. LCH occurs commonly in the anterior portion of nasal septum in Little's area because this part has a rich blood vessel distribution and is largely exposed to repeated digital trauma.[6]

Other etiological factors implicated include hormonal over-production as seen in pregnancy and excessive usage of oral contraceptives.[3][7] So far, no proper mechanism for its development has been defined, however, hormonal influences, viral oncogenes, arterio-venous malformations, over-production of angiogenic growth factors and cytogenetic abnormalities have been postulated to play a role in the development.[7][8]

Histologically, it is characterized by proliferation of submucosal vascular elements arranged in lobules. The clusters of central capillaries are lined with flattened endothelium and surrounded by fibromyxoid stroma. There is no intercommunication of vascular spaces or cytological atypia.[1][2] Usually clinical findings, imaging methods and biopsy lead to diagnosis. The advent of endoscopy has eased the approach for diagnosis and treatment of such nasal masses which vary in site, size and degree of vasculature.[9]

Total excision of the lesion by using classical or endoscopic surgery has been recommended. Endoscopic technique is the preferred method of treatment, as it provides better visualization of the surgical area and surrounding anatomy with optimal bleeding. With this procedure, entire tumor can be excised and recurrence is uncommon.[9] No malignant transformation has been reported.[1][3]

4. Conclusion

In this case, etiology of the lesion can be hypothesized as hormonal imbalance in a peripubertal male. This uncommon lesion should therefore be considered in the differential diagnosis of all endonasal masses with unilateral bleeding even

in the younger age group. The present case is reported for its potential for being misdiagnosed and also to highlight the advantage of nasal endoscopy.

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