

Lobular Capillary Hemangioma over Nasal Vestibule in a 38 Year Old Male: A Case Report

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ABSTRACT

Lobular Capillary hemangioma is a benign lesion of the skin and mucous membranes which has a property to grow rapidly. It has no predilection for age and it is seen in the third to fifth decade and most commonly in females. It can be categorized into capillary, cavernous and mixed type. Hemangioma is a disease of head and neck commonly seen in buccal mucosa, gingiva, tongue, but its presence in the nasal cavity is rare. The most common symptoms are epistaxis and nasal obstruction. The treatment is by surgical excision with or without the aid of endoscope depending on the site of lesion along with base cauterization. We present a case report of a 38 year old male patient with Lobular Capillary hemangioma who presented with mass in the vestibule along with epistaxis. The diagnosis of Lobular Capillary hemangioma must always be kept in mind when discussing the differential diagnosis of a bleeding mass of the nasal cavity even though it is a rare entity and surgical excision is still the preferred first line treatment.

Keywords: Lobular capillary hemangioma, nasal vestibule, surgical excision

INTRODUCTION

Lobular Capillary hemangioma is a benign vascular lesion of the skin and mucous membranes commonly affecting the head and neck region.^[1] According to its histopathological findings, It can be categorized into capillary, cavernous and mixed type.^[2] Lobular Capillary hemangioma is rarely seen localized to the nasal cavity.^[3] It was termed as pyogenic granuloma previously, which is now thought to be a misnomer because the lesion is neither infectious nor granulomatous.^[4]

The main chief complaints at presentation are of nasal obstruction and epistaxis. The capillary type usually seen arising from the nasal septum while the cavernous type was seen arising from the lateral nasal wall.^[5] The exact

etiology is not known, but are commonly seen during pregnancy or in patients using oral contraceptive pills and in patients with a history of trauma.^[6,7] We emphasize that the Lobular Capillary hemangioma though rarely seen, it must be included in the differential diagnosis of a bleeding mass in the nasal cavity.

CASE REPORT

A 38 year old male patient presented with a chief complaint of multiple episodes of epistaxis for the past month. There was no known history of trauma. On raising the tip of the nose a solitary reddish hemorrhagic polypoid mass was found in the vestibule of right nasal cavity, which bled readily on touch. His blood parameters were within normal limits. Radiological tests were not



Figure 1: A solitary reddish hemorrhagic polypoid mass in the vestibule of right nasal cavity

done as this lesion was localized only in the vestibule of right nasal cavity. An excision biopsy under local anaesthesia was done along with base cauterization which was reported as suggestive of capillary hemangioma. On gross examination, mass was smooth surfaced, pink polypoid measuring approximately 1x1cm in size.

Histopathological examination showed multiple lobules of small blood vessels lined by plump of endothelial cells and focal fibrosis and thick muscular blood vessels in the central stroma, which suggested capillary hemangioma. Postoperative course of the patient was uneventful, and there is no recurrence till date.

DISCUSSION

In 1904, Hartzell coined the term “pyogenic granuloma” as he presumed these lesions to be a granulation tissue arising in response to a bacterial infection.^[8] In 1980, Mills et al proposed the term “lobular capillary hemangioma” for the same by seeing the characteristic features of this tumor under microscope.^[11] More than 50 % of hemangiomas affects the head and neck region.^[2] Unlike infantile hemangiomas, adult hemangiomas have a tendency to progressively enlarge and do not regress spontaneously.^[9] Most commonly it develops in the Third to 7th decade of life.^[10]

Various studies have reported the frequent appearance of these lesions on the gingiva, lips, tongue, buccal mucosa, and rarely in the nasal cavity.^[1,11] The relative

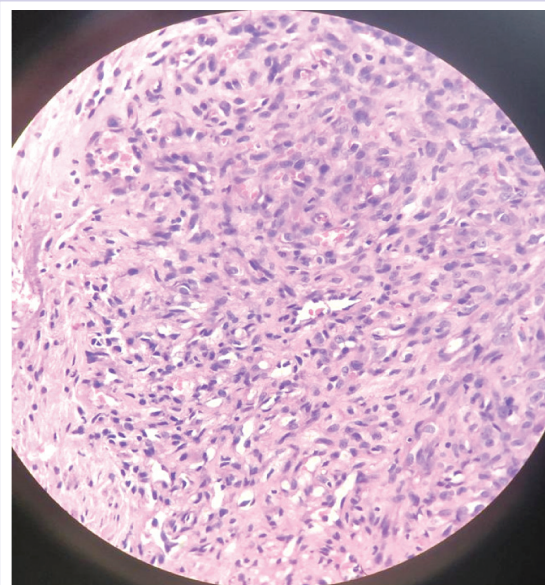


Figure 2: H & E stain shows capillaries filled with RBC and lined by plump endothelial cells

increase in incidence at the nares supports the theory that local trauma may precede the development of Lobular Capillary hemangioma.^[10] However, a retrospective study of 112 patients by Pagliai and Cohen found a history of trauma in only 5 patients (4.5%) with clinically diagnosed Lobular Capillary hemangioma.^[12] Although involvement of nasal cavity is unusual, the anterior portion of the septal mucosa and the tip of the turbinate are the most frequently involved areas in the nasal cavity.^[4, 13] In our case, lesion was present on the vestibule of right nasal cavity.

Despite the fact of its unknown etiopathology, trauma, hormonal influences, viral oncogenes, underlying microscopic arterio-venous malformations and the production of angiogenic growth factors have been suspected to act in the pathogenesis.^[10]

In our patient, none of the etiological factors were present. Lobular Capillary hemangioma of the nasal cavity usually presents with recurrent unilateral epistaxis, nasal obstruction, and nasal discharge and rarely with facial pain, alteration of smell, and headache.^[10,14,15] In view of the similar clinical features, the differential diagnosis includes antrochoanal polyp, meningoencephalocele, sarcoidosis, Wegener's granulomatosis, papilloma, Kaposi's sarcoma, angiofibroma, hemangiosarcoma, hemangiopericytoma, esthesioneuroblastoma, squamous cell carcinoma, and mucosal malignant melanoma.^[16,17]

Radiological imaging such as Computed tomography (CT) of paranasal sinuses can be performed to exclude

bony erosions with possible malignant transformations.

Histopathological examination often shows haemorrhagic collagenous tissue lined by squamous epithelial lining. There is a collection of thinned wall vascular channels in which some are dilated and lined by bland epithelium.^[18]

Surgical excision with cautery at the base of the tumor for hemostasis is the preferred treatment for nasal hemangioma in adults.^[19] This technique is associated with low rates of recurrence. Various methods can be employed such as excision, laser ablation, cryotherapy and electrocoagulation. Nasal haemangioma recurrence is uncommon and no malignant transformation has been reported.

CONCLUSION

Nasal Lobular Capillary hemangioma is a rare lesion of unknown etiology and is uncommon in adult. Due to its rare presentation there is a chance of being misdiagnosed. Surgical excision plays a key role in confirmation via histological examination. Tissue diagnosis plays a crucial role, as this will ultimately guide the treatment and management. Lobular Capillary hemangioma should always be considered in the differential diagnosis of vascular lesions within the nose.

CONFLICT OF INTEREST:

The authors declared no conflict of interest.

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REFERENCES

1. Mills SE, Cooper PH, Fechner RE. Lobular capillary hemangioma: the underlying lesion of pyogenic granuloma. A study of 73 cases from the oral and nasal mucous membranes. *Am J Surg Pathol*. 1980; 4(5):470–479.
2. Chi TH, Yuan CH, Chien ST. Lobular Lobular Capillary hemangioma of the nasal cavity: a retrospective study of 15 cases in Taiwan. *Balkan Med J*. 2014; 1:69–71.
3. Kurtaran H, Uraldi C, Ark N, Aktas D. Lobular capillary haemangioma of the middle turbinate. *Acta otolaryngologica*. 2006; 126(4):442–444.
4. Miller FR, D'Agostino MA, Schlack K. Lobular Capillary hemangioma of the nasal cavity. *Otolaryngology Head and Neck Surg*. 1994; 120(5):783–784.
5. Iwata N, Hattori K, Nakagawa T, Sujimura T. Hemangioma of the nasal cavity: a clinicopathologic study. *Auris nasus larynx*. 2002; 29(4):335–339.
6. Patil P, Singla S, Mane R, Jagdeesh KS. Nasal Lobular Capillary Hemangioma. *J Clin Imaging Sci*. 2013;3. doi:10.4103/2156-7514.119134.
7. Ozcan C, Apa DD, K. Gorur K. Pediatric lobular Lobular Capillary hemangioma of the nasal cavity. *European Arch Oto-Rhino-Laryngol Head & Neck*. 2004; 261(8):449–451.
8. Hartzell MB. Granuloma pyogenicus. *J Cutan Dis*. 1904; 22:520–523.
9. Nair S, Bahal A, Bhadauria RS. Lobular Lobular Capillary hemangioma of nasal cavity. *Med J Armed Forces India*. 2008; 64(3):270.
10. Puxeddu R, Berlucchi RM, Ledda GP, Parodo G, Farina D, Nicolai P. Lobular Lobular Capillary hemangioma of the nasal cavity: a retrospective study on 40 patients. *Am J Rhinol*. 2006; 20(4):480–484.
11. Pyogenic Granuloma(Lobular Capillary Hemangioma): A Clinicopathologic Study of 178 Cases-Patrice-1991-Pediatric Dermatology-Wiley Online Library. <https://online.library.wiley.com/doi/abs/10.1111/j.1525-1470.1991.tb00931.x> (accessed Mar. 18, 2022).
12. Pagliai KA, Cohen BA. Pyogenic granuloma in children. *Pediatric Dermatol*. 2004; 21(1):10–13.
13. Akyol MU, Yalçiner EG, Dogan AI. Pyogenic granuloma(lobular capillary hemangioma) of the tongue. *Int J Pediatric Otorhinolaryngol*. 2001; 58(3):239–241.
14. Tan SN, Gendeh HS, Gendeh BS, Ramzisham AR. The Nasal Hemangioma. *Indian J Otolaryngol Head Neck Surg*. 2019; 71(Suppl 3):1683–1686.
15. Fasunla AJ, Adebola OS, Okolo CA, Adeosun AA. Nasal septal lobular capillary haemangioma in West Africa sub-region: a case report. *Cases J*. 2009; 2(1):1–3.
16. Simo R, De Carpentier RJ, Rejali D, Gunawardena WJ. Paediatric pyogenic granuloma presenting as a unilateral nasal polyp. *Rhinol*. 1998; 36(3):136–138.
17. Tamaki A, Babajanian AE, D'Anza B, Rodriguez K. Lobular capillary hemangiomas: Case report and review of literature of vascular lesions of the nasal cavity. *Am J Otolaryngol*. 2017; 38(3):363–366. doi: 10.1016/j.amjoto.2017.02.004.
18. El-Sayed Y, A. Al-Serhani. Lobular capillary haemangioma (pyogenic granuloma) of the nose. *J Laryngo Otol*. 1997; 111(10):941–945. doi: 10.1017/S0022215100139027.
19. Benoit MM, Fink DS, Brigger MT, Keamy Jr DG. Lobular Lobular Capillary hemangioma of the nasal cavity in a five-year-old boy. *Otolaryngology-Head and Neck Surg*. 2010; 142(2):290–291.