

Lobular Capillary Hemangioma of the Nasal Septum: Common Tumor at the Rare Site

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ABSTRACT

Capillary hemangioma is a benign lesion of skin and mucous membranes of unknown etiology. It may rarely be located in the nasal septum. The most common clinical symptoms are nasal obstruction and epistaxis. We present a case report of a 39 year old female with lobular capillary hemangioma which was located on the inferior turbinate and nasal septum. Histopathological examination confirmed the diagnosis of lobular capillary hemangioma.

Keywords: Hemangioma, Nasal obstruction, lobular capillary hemangioma.

INTRODUCTION

Hemangiomas are benign fibrovascular tumors relatively that are common in the head and neck when 60% of them occur. ⁽¹⁾ Among the different categories of hemangioma, lobular capillary hemangioma is a benign lesion usually occurs in the skin, lip, buccal mucosa, tongue and gingiva with unknown etiology. Nasal septum is the rare location for capillary hemangioma. ⁽²⁾ It may be pedunculated or broad based from a few millimeters to several centimeters. It was first described as human botryomycosis by Pancet and Dor in 1897. The most etiological factors are trauma and hormonal factors. ⁽²⁾ They commonly present as bleeding mass of sudden onset and are also known as pyogenic granuloma or human botryomycosis. ⁽³⁾ Epistaxis and Nasal obstruction are the most common symptoms. We report a case of lobular capillary hemangioma which was located on

inferior turbinate and nasal septum with nasal obstruction in a 39 year old female patient

CASE REPORT

A 39 year old female patient presented to department of ENT with complaints of right nasal obstruction for the past 2 months and associated with bleeding from nose. There was no history of trauma or nasal discharge. Basic hematological investigations, liver function tests and renal function tests were normal. Nasal endoscopy revealed a reddish polypoid mass in the right nasal cavity. It was seen originating from the inferior turbinate and septum, which caused partial obstruction to the right nasal passage. Clinical diagnosis was nasal septal polyp. The specimen was excised sent to department of pathology for histopathological examination. Macroscopic findings showed single grey white soft polypoid mass measuring 2.5x1.0cm. Cut

section of the mass showed grey white. Histopathological examination showed lesion lined by stratified squamous epithelium with focal ulceration. Sub epithelium shows lobular proliferation of thin walled capillary sized blood vessels which are lined by plump endothelial cells (Fig-1, Fig-2). Stroma shows fibrous tissue and chronic inflammatory cells. The lesion was diagnosed as lobular capillary hemangioma. Post operative state was uneventful and 1 month follow up the case showed good recovery.

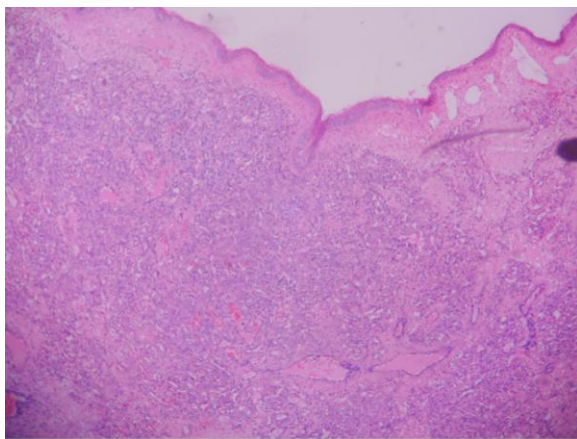


Fig: 1 - Microscopic examination (H&E) (10X) Showing polypoid tissue lined by stratified squamous epithelium with underlying muco showing lobules of capillaries lined by plump endothelial cells.

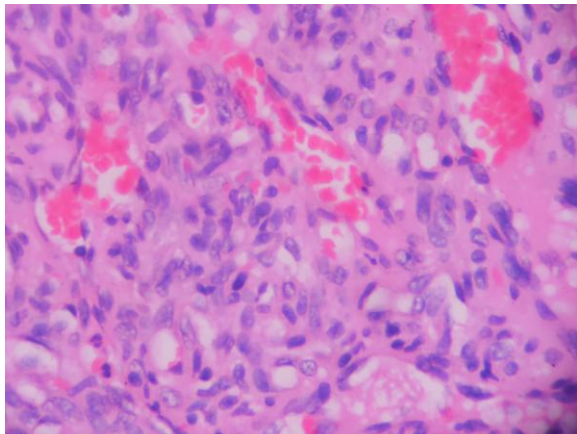


Fig: 2 - Microscopic examination (H&E) (40X) Showing tightly packed capillaries with plump endothelial cells.

DISCUSSION

Lobular capillary hemangiomas are benign polypoid form hemangioma occurring on skin and mucous membranes. It can occur in all ages but more common in 3rd decade with female predominance. The first case of Lobular capillary hemangioma in the literature was in 1987, when Pancet and Dor named it human botryomycosis. (5)

It was also called pyogenic granuloma by Hartzell (6) in 1904 as he thought they were a non specific granulation tissue reaction to a pyogenic infection. Mills described the lesion as Lobular capillary hemangioma due to their typical lobular capillary arrangement at the base. (7) The term pregnancy tumor has been used to reflect the association with pregnancy. (8)

In adult population Lobular capillary hemangioma is more prevalent in women while in children it is more common in men. (2) The exact mechanism for the development of Lobular capillary hemangioma is unknown. Trauma, hormonal influences, nasal packs, viral oncogenes, production of angiogenic growth factors, arterio venous malformations and cytogenetic factors have been suspected to act in the pathogenesis. (4) Increase in regional hydrostatic pressure caused by repeated stimulation is known to influence the occurrence of hemangioma. Histologically Lobular capillary hemangioma has polypoid circumscribed lobular proliferation of capillaries in a fibromyxoid oedematous stroma and overlying epithelium is ulcerated or atrophic. (8) Capillary hemangioma can be differentiated from polypoid lesions like nasal polyp, cavernous hemangioma, nasal angiofibroma and rhinosporidiosis by histopathology.

Polyps of nasal cavity are non neoplastic proliferations of uncertain pathogenesis. Inflammatory polyps are by far the most common. Histologically inflammatory polyp shows polypoid tissue lined by pseudostratified ciliated columnar epithelium with ulceration. Lamina propria shows edematous stroma containing capillaries, mixed inflammatory cells, fibroblastic proliferation and mucous glands. Inflammatory polyp has no lobular arrangement of capillaries with endothelial cell proliferation. Rhinosporidiosis presenting as straw berry like mass, a friable polypoid vascular mass with numerous spores on the surface. Cavernous hemangioma is even rare in the nose and

consists of large dilated blood vessels filled with blood whereas capillary hemangioma shows lobular proliferation of thin walled capillaries. Intervening stroma shows scanty fibrous tissue.

Nasal angiofibroma are uncommon tumors. Nasal angiofibroma is histological benign vascular tumor but locally aggressive that grows in the back of nasal cavity. Patients with nasal angiofibroma usually present with nasal obstruction and bleeding. Microscopically it shows dense fibrovascular stroma containing angular irregular shaped blood vessels which are lined by endothelial cells and are supported by collagenous stroma containing spindle to stellate fibroblasts with plump nuclei and mild nuclear pleomorphism. Capillary hemangioma differentiated with nasal angiofibroma by absence of plump endothelial cells.

The rarity of Lobular capillary hemangioma presenting in the nasal septum can lead to uncertainties in the diagnosis. A delayed in the diagnosis can lead to hemodynamic imbalance that results from mass rupture and epistaxis due to vascular and friable nature. Histopathological examination is helpful for early diagnosis. Review of literature showed one case of lobular capillary hemangioma reported in nasal septum.⁽⁹⁾ We report this case due to its presentation in the rare site of nasal septum.

CONCLUSION

Lobular capillary hemangioma of nasal septum is a rare lesion of unknown etiology. It should be considered in the differential diagnosis of polypoid lesions

within the nasal cavity. Histopathological examination is the final diagnosis made on biopsy of surgical specimen.

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