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Leiomyoma of the Nasal Septum – A Case Report

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Abstract

Leiomyomas of the nasal cavity are rare and benign tumour of vascular smooth muscle origin that uncommonly arise from the nasal septum. In the nasal cavity they contribute less than 1% of all human leiomyoma. Leiomyomas are more commonly found in female genital tract (uterus), gastrointestinal tract and subcutaneous tissue. They are classified in three groups: leiomyoma, angiomyoma and epithelioid leiomyoma. Here, we report a clinical case of a rare vascular leiomyoma in the nasal septum in a 32-year-old man. The treatment of choice was surgical excision. A brief review of the literature, treatment and aetiological variations are discussed.

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Introduction

Vascular leiomyomas are benign smooth muscle tumors which usually present as a small pain less mass. The exact origin of these tumours is not known, but most authors agree that the aetiology is probably from smooth muscle cells in the walls of blood vessels. Simple excision of the tumor having high cure rate. Histological classifications of tumors by the World Health Organization (WHO) divided the leiomyomas in three groups: Leiomyoma (solid leiomyoma), angioleiomyoma (vascular leiomyoma) and epithelioid leiomyoma (leiomyoblastoma).[1,2]

Case Summary

A 32-year-old male patient was admitted into the ENT Department of Community Based Medical College, Bangladesh (CBMC,B) Hospital at Mymensingh, Bangladesh, with the complaints of a swelling right side of the nasal cavity, right sided nasal obstruction, headache, occasional nasal bleeding for two months. On anterior rhinoscopy examination a polypoidal mass measuring 1.5×1.5 cm, firm in consistency, nontender, smooth and glistening surface arises from anterior part of the nasal septum of right nasal cavity (Fig. 1). Excision of the polypoidal mass was performed under local anesthesia. There was no significant bleeding when the mass was excised from its attachment. Histopathological report showed a benign tumor composed of spindle shaped cells which appear smooth muscle cells having blunted ends,

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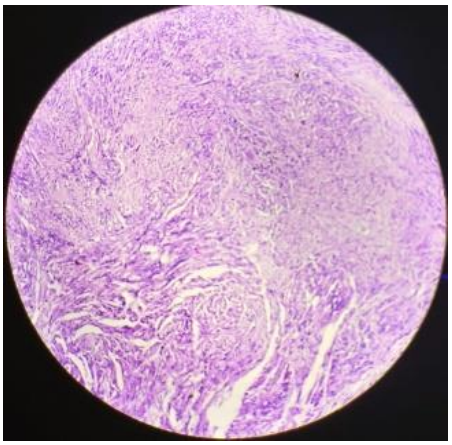
arranged in whorls and fascicles and features favor for leiomyoma (Fig. 2). Postoperative period was uneventful and there was no recurrence after 6 months.

Fig. 1: Photograph of mass of the right nasal cavity

Fig. 2: Photograph of the lesion shows spindle shaped cells which appear smooth muscle cells having blunted ends, arranged in whorls and fascicles



Discussion

Nasal cavity and paranasal sinuses vascular leiomyomas are extremely rare due to the scarcity of smooth muscle in the nasal cavity except for the vessels walls.[3,4] In the nasal cavity, three hypotheses have been given for the origin of smooth muscle tumours: from smooth muscle elements in the walls of blood vessels, aberrant undifferentiated mesenchyme or from both sources:[5]

Most authors support the idea that vascular smooth muscle is the origin of the tumour. There is smooth muscle tissue in the blood vessels walls or in the hair erecting muscles of the anterior vestibule is responsible for the origin of the tumour.[2] On histology, the vascular type which is less common, exhibits double walled vessels indicating that the mass originated in smooth muscle of veins. Progressive development of smooth muscle of tumor from heamangioma to vascular leiomyoma has been postutated.[6] These vascular leiomyoma finally developed to solid leiomyoma with gradual vascularity.[7] Maesake *et al.* first reported the first case of an intranasal leiomyoma an angioleiomyoma in 1966.[1,7-9] Since then only 29 cases have been reported to be arising from nasal cavity of which only 8 cases from nasal septum, indicating the extreme rarity of this condition.[2,3] According to Barr *et al.* the high incidence of leiomyomas are in the interior turbinate may be attributed large quantity of contractile vascular tissue in the smooth muscle.6 Treatment was local resection and there was no reports of recurrence after total excision. [1,8-10]

Bloom *et. al.* reported a case of spontaneons recurrence of tumour in 2001.[3] This report shows that there may be potential recurrence after incomplete resection and need for complete excision to get definite treatment. Our patient underwent excision of the mass under

local anesthesia. The procedure of surgery was simple, well tolerated and without complications. He is now six months of his post-operative period without complications or signs of recurrence.

Conclusion

Leiomyoma of the nasal septum is extremely rare benign neoplasm. Exact origin of the leiomyoma is still uncertain. However, it is believed that it comes from the muscle cells of vessel wall. Surgical excision is the treatment choice and prognosis of nasal leiomyoma is excellent after complete excision.

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