

Angioleiomyoma of the Inferior Turbinate & A Short Review

Alt Konka Anjiyoleiomyoması ve Literatürün Kısaca Gözden Geçirilmesi

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ABSTRACT

We report a very rare case of angioleiomyoma arising from the inferior turbinate. We discuss the presentation, management and also a review of the literature.

Keywords

Angioleiomyoma, nasal cavity, inferior turbinate

ÖZET

Alt konkadan köken alan çok nadir bir anjiyoleiomyom olgusunu sunuyoruz. Olgunun başvuru şeklini, tedavisini tartıştık ve literatürü gözden geçirdik.

Anahtar Sözcükler

Angioleiomyoma, nasal boşluk, alt konka

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INTRODUCTION

Leiomyoma is a rare, usually slow-growing, benign smooth muscle tumour. It is divided into two groups: non-vascular and vascular (angioleiomyomas, angiofibromas, vascular leiomyoma). Angioleiomyomas [AL] are rarely seen in the head and neck area.¹ Only about ten cases have been reported in the nasal cavity so far² mainly attributed to the paucity of smooth muscle at this site³ AL usually originate from the smooth muscle in the walls of vascular channels.⁴⁻⁷ Some authors have suggested it is a kind of hamartoma,^{6,7} a vascular malformation,⁵ or one stage in a process of smooth muscle proliferation from haemangioma to solid leiomyoma.⁵ Morimoto⁸ classified vascular leiomyomas into solid, cavernous and venous types. AL usually develop in the lower extremities and present as solitary, small, painful cutaneous mass of the solid type.^{7,8} Only 8.5-10% of AL arise in the head and neck area and they usually present as a painless mass of venous or cavernous type.^{5,7,8}

CASE REPORT

A 74 year old gentleman presented to our ENT department with a history of recurrent epistaxis from his left nostril. There was no nasal obstruction, associated pain or other nasal and sinus symptoms.

On examination there was a large polypoidal lesion arising from the left inferior turbinate. Middle meati, post nasal space and right nostril examination was normal. He was listed for an urgent examination under anaesthetic of the nose and excision biopsy of the lesion. At operation a soft, oedematous mass was seen arising from the inferior turbinate. The lesion was completely excised under endoscopic control. The post-operative period was uneventful.

Histopathology

The tumour showed numerous thick walled veins with the smooth muscle of the vessel walls splitting out the adjacent tissue. There was focal myxoid change with some fat cells. There was no significant pleomorphism or mitoses. [Figure 1, 2]

DISCUSSION

AL, a benign tumour with vascular and smooth muscle components is rare in the head and neck area. Hachisuga et al.⁷ in their study of 562 cases of AL, they found only 48 cases (8%) in the head and neck. Only five of the

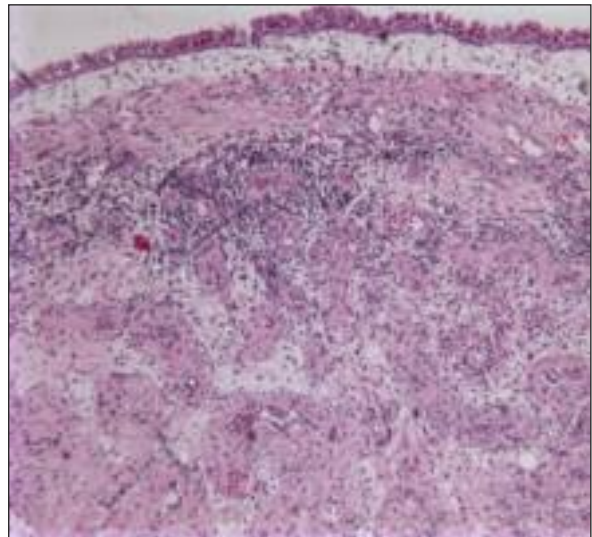


Figure 1. Underneath the respiratory mucosa of the nose there are numerous thick walled blood vessels with smooth muscle extending into adjacent tissue. [H&E x 20]

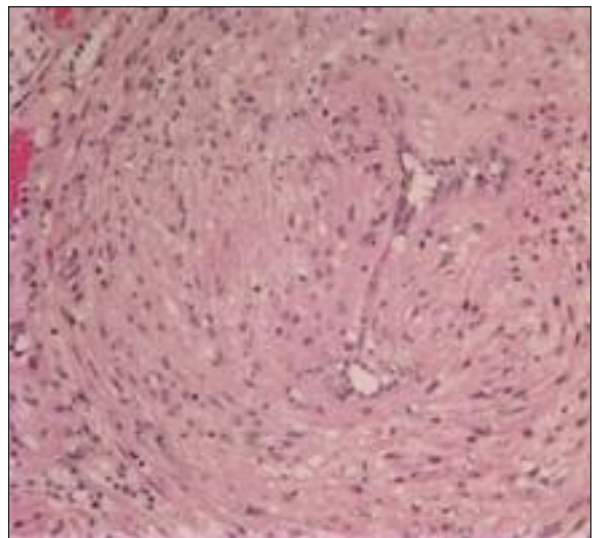


Figure 2. A lesional blood vessel showing the very thick layer of smooth muscle spilling out into adjacent tissue (bottom of the photo) [H&E x 50]

se cases were found in the nasal cavity. Maesaka et al.⁹ in 1966 reported the first case. To date only ten nasal cavity AL's have been reported in the literature.

AL usually present in the middle aged as most of the observations have been in the fifth and sixth decade. There appears to be female preponderance as eight out of the ten cases were women.¹⁰ The role of sex steroid receptors in the development of these tumours has not been completely elucidated. The prevalence of female cases of AL and the increased pain during pregnancy and the menstrual cycle in these cases at several sites^{7,11} suggest that

progesterone receptors influence nasal AL development. Progesterone receptor activity usually depends on oestrogen.¹¹ Marioni et al.¹² in their case found it to be only progesterone-receptor positive and oestrogen-receptor negative on immunohistochemical analysis. They suggested that the growth of AL may be hormone-dependent.

The common presenting symptoms of nasal cavity AL's are facial pain or headache, nasal obstruction and epistaxis.^{2,13} AL's develop mostly from the middle or inferior turbinate.^{2,14-18} The nasal vestibule^{9,19-23} has been the site of origin in six cases, paranasal sinuses²⁴⁻²⁷ in four cases and the nasal septum^{17,28} in two cases.

The differential diagnosis of AL includes hemangioma, fibromyoma, leiomyoblastoma, angiomyolipoma and vascular leiomyosarcoma. Conventional light microscopy after haematoxylin-eosin staining should be reinforced by immunohistochemical investigations. Immunohistochemical staining for smooth muscle actin, desmin and vimentin can provide additional information to help clarify the diagnosis.

Imaging in the form of MRI or CT scan is needed only if the lesion is clinically large. MR imaging is helpful in differentiating neoplastic tissue from inflammatory changes such as sinusitis or mucocele and also gives more accurate information on the relationship of the tumour with blood vessels and dura. CT scans delineates bone erosions clearly. Since the lesions are usually of moderate vascularisation angiography and pre-operative embolization are not routinely required.

Surgery in the form of local excision using a trans-nasal approach is usually adequate for small lesions as seen in our case.

CONCLUSION

AL's of the inferior turbinate are rare tumours.

They can present as painless masses with epistaxis.

They can be completely excised with no evidence of recurrence.

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